



National Minimum Wage

Low Pay Commission Report Spring 2016



National Minimum Wage

Low Pay Commission Report Spring 2016

Presented to Parliament
by the Secretary of State for
Business, Innovation and Skills
by Command of Her Majesty

March 2016



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Print ISBN 9781474129176

Web ISBN 9781474129183

Printed in the UK by the Williams Lea Group on behalf of the Controller of Her Majesty's Stationery Office.

ID 19021601

03/16

Printed on paper containing 75% recycled fibre content minimum

Printed in the UK by the Williams Lea Group on behalf of the Controller of Her Majesty's Stationery Office.

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Introduction

This is the 17th Low Pay Commission (LPC) report. It comes against the backdrop of the biggest change in the National Minimum Wage (NMW) since its introduction in 1999 and a major change for the UK labour market: the creation of the National Living Wage (NLW).

At the time of writing, January 2016, there are four rates of the NMW – the adult rate for workers aged 21 and over, the Youth Development Rate for workers aged 18-20, the 16-17 Year Old Rate and the Apprentice Rate. The LPC has previously made regular recommendations to the Government for each of these rates based on considerations of affordability. Our annual remit has typically asked the LPC to reach a judgment on the level that will help as many low-paid workers as possible, without any significant negative effect on employment or the economy.

This reflects the origins of the minimum wage. The National Minimum Wage Act 1998 does not set out a goal for the policy, but the aim as expressed in the original debates establishing it in the 1990s was at least threefold: to tackle exploitation; to raise pay; and to take the politics out of setting the wage floor by devolving advice to an independent expert body.

The Low Pay Commission is generally thought to have succeeded in its broad aims, ending extreme low pay, without damaging jobs or the wider economy. Businesses have had to respond to a higher pay floor that some have, on occasion, found uncomfortable – but the evidence set out in this and in previous reports shows that they have generally adapted well. However, there has also been concern to explore ways the minimum wage can do even more to support living standards. In recent years several bodies have reviewed aspects of the NMW related to its value and its affordability with a view to unlocking further increases while managing possible economic harm.

The National Living Wage announced in July, which delivers a higher wage for older workers, responds to those concerns. From April 2016, those aged 25 and over will receive a new rate of £7.20 – the existing adult rate plus a ‘premium’ of 50 pence.

The most visible change apparent in the NLW is the higher level, with the new policy set to increase pay for older workers by 7.5 per cent in April 2016, or a total of 10.8 per cent year-on-year. But there are at least four further implications.

First, the age structure means the adult rate now applies in practice to 21-24 year old workers only. The Government’s Regulatory Impact Assessment for the NLW (BIS, 2015j) explains that the age structure seeks to help manage employment risks, given that younger workers have lower pay on average than older workers and face tougher labour market conditions, so may not be able to sustain a higher pay floor: ‘Introducing the NLW at a lower age threshold could damage employment prospects because [younger workers] already face higher unemployment rates. Introducing a new

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rate at a 25 and above threshold allows older workers to benefit from a higher wage floor without potentially harming employment levels for younger workers’.

Second, though they both apply to workers in exactly the same way, the NLW and NMW will be set on somewhat different bases. The minimum wage for workers aged 25 and over seeks to raise pay notwithstanding a risk of some employment loss – rather than being set with a view to the LPC’s longstanding goal of having no significant negative impact on jobs. Analysis by the Office for Budget Responsibility (2015b) in July 2015 estimated that as a consequence of the NLW’s introduction there will be 20,000-120,000 fewer jobs by 2020 than there otherwise would have been, albeit the wider economy will in the meantime gain 1.1 million jobs overall.

Third, the NLW is subject to a target. Whereas the NMW has been set for much of its life year by year, there is an explicit ambition for the level of the NLW by 2020. BIS (2015h) states ‘The Government estimates that the level of the combined NMW and the premium in April 2016 will be 55 per cent of median earnings and has set out an ambition that this should continue to increase to reach 60 per cent of median earnings by 2020, subject to sustained economic growth. The Government’s objective is to have a National Living Wage of over £9 by 2020’.

A fourth difference is more practical: the National Living Wage has been introduced on a different annual cycle to the rest of the National Minimum Wage. The Government is reviewing possible alignment but the NMW cycle is likely to be revised to accommodate it. The NMW has traditionally changed in October, with the annual report published and rates announced publicly for the coming year around March. The NLW will change in April, with rates announced publicly before Christmas. In 2016, minimum wage rates in the UK will change twice: for workers aged 25 and over in April, for workers aged under 25 and apprentices in October.

The difference in level, employment risk, and structure have – in combination with its name – meant there has been some uncertainty among the LPC’s stakeholders about what the NLW means in practice. It is, in effect, a fifth minimum wage rate for workers aged 25 and over – with exactly the same rules as the existing minimum wage rates in respect of implementation, enforcement, definition of pay, treatment of bonuses, salary sacrifice schemes and so on.

It is fundamentally different from the UK Living Wage and the London Living Wage in two respects. It differs first, in that the NLW is a legally binding requirement for all firms in the UK, whereas the other living wages are voluntary standards firms can sign up to if they wish. Second, it is different in the sense that the UK and London Living Wages are based on an attempt to measure the hourly pay required to meet need. The level of the NLW has a conceptually separate underpinning, with its level determined by a target relationship with average pay. This has its origins in the Bain Review, conducted by the first chair of the Low Pay Commission Professor Sir George Bain for the thinktank the Resolution Foundation (D’Arcy, Hurrell and Plunkett, 2014), which noted data on the relative value of other countries’ minimum wages (though it suggested the slightly less ambitious goal of a target of 60 per cent of average earnings for all workers, not just those aged 25 and over).

Remit

These differences from the previous status quo coalesce in the new remit of the Low Pay Commission. It explains that the Government's aim is 'to have NMW rates that help as many low-paid workers as possible without damaging their employment prospects' in order to 'move away from a low wage, high tax, high welfare society and encourage a model of higher pay and higher productivity'.

It asks the LPC by as early as possible in February 2016 to monitor, evaluate and review the level of each of the different NMW rates (the 16-17 Year Old Rate, the Youth Development Rate (for 18-20 year olds), the adult rate of the NMW (which now directly affects just 21-24 year olds), and the Apprentice Rate) and make recommendations on increases it believes should apply from October 2016. This is the focus of this report.

It also asks the LPC by October 2016 to 'recommend the level of the National Living Wage to apply from April 2017', with a view to meeting the 2020 ambition of reaching 60 per cent of median earnings. In doing this the LPC should consider 'the pace of the increase, taking into account the state of the economy, employment and unemployment levels, and relevant policy changes.'

Across both the NMW and NLW, the remit also asks for the LPC to provide indicative second year rates in order to 'give more certainty to business', which would be 'subject to confirmation in light of economic conditions'.

An uncertainty at the time of writing is possible alignment of the cycle of the rates, which is being reviewed by the Government and may take place in April 2017. Should it do so, the recommendations in this report will last for 6 months only, and it is probable the LPC will be asked to revisit the levels of the other rates in our second report this year.

Implications

The requirements arising from the NLW mean a change in the role and activity of the LPC – with a bigger monitoring function as we seek to understand the impact of the policy. This will include taking advantage of the new research opportunities presented by significant change in the level. It will also mean continuing our existing role in informing public debate on low pay through authoritative analysis, including highlighting sectoral and other barriers to higher pay in our reports.

The change in our role will also mean an adjustment in the LPC's wage-setting function.

For workers aged 25 and over, the NLW provides a fixed £7.20 starting point and an ambition for 2020. The remit requires the LPC to 'consider the pace of the increase' year to year with a view to the NLW increasing to 60 per cent or more of typical earnings by 2020. Progress to 60 per cent is however 'subject to sustained economic growth', and 'taking into account the state of the economy, employment and unemployment levels and relevant policy changes'.

For recommendations regarding workers under the age of 25 and apprentices, where the other rates apply, there is no 2020 target and the basis is unchanged from the past: the Government's aim 'is to have NMW rates that help as many low-paid workers as possible without damaging their employment prospects'.

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Workers under 25 years old and apprentices are likely to be about a fifth of the total cohort on minimum wages after April 2016, a proportion that will fall over time if the NLW increases in value towards 2020 faster than the adult and youth rates. In absolute numbers, there are just over 430,000 NMW workers aged under 25 and minimum wage apprentices. This is similar to the coverage of the NMW as a whole when first introduced, though only about 30 per cent of the group affected by the rates decisions in our 2015 Report.

This Report

This report seeks to meet the formal requirement of the remit to recommend NMW rates applicable from October 2016.

A second report in late autumn will seek to meet the formal requirement of the remit to recommend a specific level for the NLW to apply from April 2017. We will provide recommendations to the Government in October.

Since the new remit raises a number of questions of methodology, this report also sets out our preliminary views on how we will approach the NLW, with the intention of consulting on our conclusions in spring 2016. Because the NLW takes effect in April, we also include a preliminary assessment of its potential overall impact, though ahead of its implementation there is inevitably limited hard data to go on. The structure for this report is as follows:

- Chapter 1 sets out the evidence on the NMW and its record so far.
- Chapter 2 evaluates the NLW, providing a preliminary assessment of its possible impacts in 2016 and 2020.
- Chapter 3 considers how the LPC will reach recommendations on the level of the NLW.
- Chapter 4 analyses the labour market position and earnings of workers aged 21-24 with a view both to informing the LPC decision on how their wage floor should be set in view of the NLW, and providing the evidence for that decision.
- Chapter 5 analyses the labour market position and earnings of workers aged under 21 and apprentices – again with a view to reflecting on the implications of the NLW, and also providing evidence for this year’s rates decisions.
- Chapter 6 sets out our view on the economy including its implications for the youth rates and the NLW.
- Chapter 7 provides our recommendations on the adult rate of the NMW (covering those aged 21-24), the Youth Development Rate, the 16-17 Year Old Rate, Apprentice Rate and the Accommodation Offset, including consideration of indicative rates.
- Chapter 8 considers the operation of the minimum wage, in particular non-compliance and enforcement, including the implications of the introduction of the NLW.

Evidence

LPC recommendations are based on an extensive and detailed process of gathering evidence which is carefully evaluated for its implications. We have sought to arrive at recommendations for the level of the minimum wage through a thorough consideration of economic and labour market trends.

This has been informed by: written and oral submissions from stakeholders; our usual programme of commissioned external research; detailed in-house analysis of key economic and labour market data; and an in-depth visits programme around the United Kingdom.

Once again we are very grateful to organisations and individuals that have provided evidence. We received nigh on 100 responses to our consultation. In addition there were more than 500 respondents to our snapshot on-line survey. 17 organisations presented at our regular Commission meetings through the year and, in November, 37 representatives of various organisations came to our oral evidence sessions. Our Secretariat had more than 25 meetings with stakeholders. Appendix 1 records those who responded to our call for evidence and who agreed to be listed.

We also visited employers, workers and others affected by the NMW in the four countries of the UK. Eight visits took place over the course of our work for this report, during which we had a total of 50 meetings. We visited: Belfast, Banbridge and Carryduff; Blackpool, Leeds and Preston; Bristol, Exeter and Plymouth; Edinburgh and Glasgow; Leicester and Derby; London; Neath and Swansea; and south Essex. These visits once again provided invaluable real-world insights into the effects of the NMW that other forms of evidence cannot provide. We would like to record our gratitude to everyone who gave their time to meet with us.

We commissioned three external research projects for this report: the impact of the NMW on earnings, differentials and productivity; the impact of the NMW on employment and hours; and the impact of the NMW on productivity. Their findings are used to supplement other evidence throughout this report and a summary is reported in Appendix 2. In addition, a fourth research project was commissioned with a later deadline – an investigation of the reasons for reported non-compliance with the Apprentice Rate – and its preliminary findings are also included.

We met formally as the Low Pay Commission nine times since our previous report, including two days formally to take oral evidence from representative organisations, and an all-day meeting in December to take presentations from the Government and a number of other stakeholders on economic and labour market issues. In addition, we met in January for two days to review and assess the evidence relevant to our remit, and to agree all the recommendations contained in this report. It is based on evidence available up until 21 January.

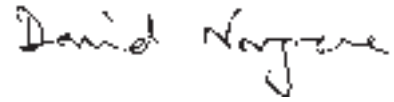
Conclusion

We have aimed to produce a report which explains the reasons for our conclusions and recommendations not just on the narrow questions of the rate but on the wider issue of how the NMW will function in future, and the fundamental basis on which the rates should be set. Our conclusions and recommendations represent the unanimous views of all Commissioners.

The Commissioners

Sir David Norgrove (Chair)

Chair, Family Justice Board and Council member, Oxford University



Professor Sarah Brown

Professor of Economics, University of Sheffield



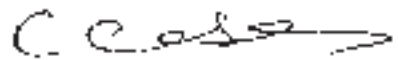
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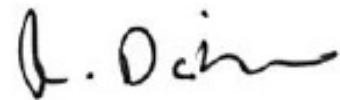
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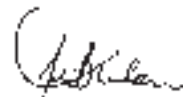
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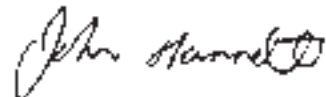
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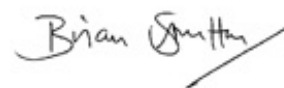
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Executive Summary

- 1** This is the 17th Low Pay Commission report. It is published against the backdrop of the creation of the National Living Wage (NLW), which is effectively a fifth minimum wage rate for workers aged 25 and over, initially set at £7.20. Our remit from the Government focused for this report on: the adult rate of the National Minimum Wage (NMW), which will in future only apply directly to 21-24 year olds; the Youth Development Rate for 18-20 year olds; the 16-17 Year Old Rate; and the Apprentice Rate.
- 2** Our remit said that the Government's 'aim is to have National Minimum Wage rates that help as many low-paid workers as possible without damaging their employment prospects'. It asked us to monitor, evaluate and review the level of each of the different NMW rates and make recommendations on the level that should apply from October 2016. It also asked us to provide indicative (second year) rates 'to give more certainty to business... subject to confirmation in light of economic conditions'.
- 3** We will report separately, in the autumn of 2016, on a second part of our remit: a request to recommend the rate of the NLW to apply from April 2017. Unlike the other minimum wage rates, the NLW is subject to a target. We are asked to 'consider the pace of the increase' year to year with a view to meeting 'the ambition [of reaching] 60 per cent of median earnings by 2020, subject to sustained economic growth. The Government's objective is to have a NLW of £9 by 2020'. We have made a detailed initial assessment of the NLW in this report as a baseline for later deliberations.
- 4** An uncertainty at the time of writing is proposed alignment of the cycles of the NMW and the NLW, with the former currently changing in October and the latter April. The earliest alignment could occur is April 2017. If so, the recommendations in this report will last 6 months only. We may be asked to make further recommendations for the levels of the other rates in our second report of 2016.

Chapter 1: The Impact of the National Minimum Wage

- 5** The adult rate of the NMW has increased by 86 per cent since its introduction at £3.60 an hour in April 1999 – greater than the increase in average earnings and prices over the same period. Though the real value dipped during the recession (as, like wages across the economy, it increased more slowly than inflation), the increases recommended in our previous two reports (3.0 per cent in October 2014 and 3.1 per cent in October 2015) have restored most of that lost value. Measured against CPI, it is now above its real value in every year apart from 2007.

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- 6** It has also continued to increase in relative value. In October 2015 the bite of the NMW (its value relative to the median) was again at its highest level since introduction: 54.5 per cent for employees aged 21 and over in April 2015. The bite was also at its highest across firm sizes, reaching 67.8 per cent for micro firms and rose above 80 per cent for the first time in the low-paying sectors as a whole. Taking a longer-term comparison using adults aged 22 and over, the bite has risen from 45.7 per cent on introduction to 50.9 per cent in April 2010 to 53.9 per cent in April 2015 – a gradual acceleration in the pace of relative increases. The coverage of the NMW was also at record levels, with over a million adults (22 and over) paid within 10 pence of the adult rate compared with around 700,000 in 2010.
- 7** Despite the increased level of the bite of the NMW, total employment has continued to grow in the economy as a whole and in the low-paying sectors. After record-breaking job growth in 2014, the labour market slowed slightly in 2015 but still saw 1.7 per cent growth in the number of employees and employee jobs in the year to September 2015. The number of hours only grew by 0.7 per cent but redundancy and vacancy data continued to suggest that the labour market was coping with an increasing labour supply – from those out of the workforce, women approaching retirement age, those above State Pension Age and migrants.
- 8** Nonetheless there were some signs of pressures for firms. With inflation low, firms found it difficult to pass additional labour costs on to consumers and clients in the form of higher prices. However, falling energy, commodity, and input prices, generally enabled them to maintain or increase margins. On various measures of profitability, the corporate sector as a whole looked reasonably healthy though, other than in services, output growth had been disappointing with correspondingly poor productivity performance. Most of the competitiveness data suggested that firms were coping with the latest increases in the NMW, although there remained sector-specific pressures.
- 9** Research suggests that, over the long-term, the minimum wage has raised pay with little adverse effect on employment. We have now commissioned more than 140 research projects which suggest firms have coped with increased costs by: adjusting pay structures; reducing non-wage costs; making small reductions in hours; increasing productivity; increasing some prices (particularly for consumer services rather than business-to-business services); and some squeezing of profits although without an increase in business failure.
- 10** With the introduction of the NLW, there has been renewed interest in how firms adapt. In research commissioned for this report, researchers again found a positive association between the NMW and productivity, but the precise channel remains an enigma. They could find no robust evidence that the NMW affected: the capital/labour ratio; investment; training; the degree of employee autonomy; absenteeism; or their proxies for effort. However, they did find some evidence that firms affected: by the NMW tended to reduce their share of workers in unskilled routine occupations, though this may also have reflected increasing non-labour costs. Other research sheds possible light on the impact of the NLW on younger workers – with a study finding that minimum wages reduced the likelihood of workers quitting and presenting some evidence that employment of teenagers was positively related to the cost of hiring adult workers.

Chapter 2: The Impact of the National Living Wage

- 11** The NLW is a significant change for the UK labour market. The main beneficiaries are low-paid workers: around 1.8 million workers are likely to be covered by the introductory rate of £7.20 in April 2016, with nominal annual earnings for a typical worker currently on the NMW increasing by £680, rising to £3,360 by 2020. However, there are also uncertainties in relation to the wider effects. Office for Budget Responsibility (OBR) analysis in July 2015 estimated reduced employment and hours worked arising from the NLW by 2020 equivalent to between 20,000 and 120,000 job losses – against wider employment gains of 1.1 million as the population grows. The extent to which these estimates are borne out is likely to depend in turn on how employers react, and wider economic performance.
- 12** There is little hard evidence on impacts so far. Respondents to our consultation welcomed higher pay in principle, with trade unions particularly supportive – although they called for further ambition, including a move towards the UK Living Wage. Among employers, a minority welcomed a higher pay floor as broadly affordable for most firms. A number were concerned about the introductory rate of £7.20 – notably in sectors including small retail, some small firms, agriculture, food manufacturing, textiles and especially social care. Representatives of social care providers argued that, in combination with other factors that have made the sector a longstanding concern, the NLW risked the viability of some businesses. The response of local authorities will be vital, though we heard real concerns about their ability to meet the costs of the sector even with extra flexibility on Council Tax, particularly in poorer areas with high need but a weaker tax base. A third grouping was employers who thought the April 2016 rate manageable but were concerned about the 2020 goal. This included some bigger retailers, hotels and restaurants, the hairdressing sector, and childcare sector representatives.
- 13** Respondents to our consultation told us that firms expect to cope with the initial rate through consolidating the wider reward package, reduced premium payments and squeezing differentials as well as considering raising prices, reducing profits and reducing hours. Few had at this stage thought about how they would adjust to successive increases but the NLW would be likely to require structural change – for example, automation and redesigning services.
- 14** In principle there are good reasons to believe that older workers can bear a higher wage floor than younger workers with few negative consequences. Workers aged 25 and over have higher average pay, a lower bite, and lower unemployment than workers under the age of 25. Nonetheless, evidence suggests that the policy is new territory for the labour market.
- 15** The introductory rate of £7.20 is a 7.5 per cent increase, or 10.8 per cent year-on-year – the largest cash increase to date in the main rate of the minimum wage, and the joint highest percentage increase on an annual basis. In consequence, the real value of the minimum wage for workers aged 25 and over is set to be its highest ever even on an RPI basis, restoring and surpassing the value lost in the downturn. The relative value will also be at its peak, with the bite rising for this group from 52.1 per cent in 2015 to an estimated 55.1 per cent in 2016.

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- 16** By 2020, the bite for workers aged 25 and over is likely to increase to 60 per cent of the median – an equivalent level for all workers of 62 per cent (since the bites of the minimum wage rates for younger workers are already over 70 per cent). Including the 2015 adult rate increase, the bite for workers aged 25 and over is set to increase by the same amount in the five years to 2020 as it did in the previous sixteen.
- 17** We have modelled the static effects of the NLW for bite, coverage and wage bills by considering what a pay floor of 60 per cent of median pay applied to the 2015 earnings distribution would mean by sector, geography, group and so on. This shows that the bite for workers aged 25 and over is set to be lowest for middle-aged workers, those in the South East, and those in bigger firms. It will be highest for: those aged 25-30 and those aged over 65; those working in Wales, Northern Ireland, Yorkshire and the Humber, and the East Midlands; those working in small firms; and those in low-paying sectors. By 2020, the bite could reach 90 per cent for workers in retail and 100 per cent in cleaning and hospitality.
- 18** Looking at minimum wage coverage for all workers (not just those aged 25 and over), defined as paid within five pence of the appropriate rate, the estimated proportion of minimum wage workers in the workforce is set to rise from 5 per cent (1.4 million) in 2015 to 8 per cent (2.2 million) in 2016 and then to almost 14 per cent (3.7 million) in 2020.
- 19** We estimate that in 2016, around two in five jobs in cleaning (40 per cent), one in three jobs in hospitality (30 per cent) and in hairdressing (34 per cent), one in six part-time jobs (17.5 per cent) and one in nine private sector jobs (11 per cent), is set to be paid at the minimum wage. These proportions will have increased by 2020, when one in six private sector jobs (18 per cent) could be paid at the minimum wage. Coverage also increases in small firms, rising to over one in six jobs in firms with fewer than ten staff (17 per cent) in 2016 and one in four in 2020 (25 per cent). It will also be higher in particular parts of the UK – rising to more than one in six jobs in Yorkshire and the Humber, the North East, Northern Ireland (all 17 per cent), the East Midlands and Wales (both 18 per cent) by 2020. Finally, coverage also increases for workers aged 25-30 and 65 and over, workers with no qualifications, workers with disabilities, migrant workers, women and ethnic minorities.
- 20** The introduction of the NLW is set to add an estimated £0.7 billion or 0.1 per cent to wage bills. The increase to 60 per cent of average earnings then adds an estimated £2.4 billion or 0.4 per cent to wage bills by 2020. The costs are in addition to forecast average earnings growth with marked variation by sector: we estimate highest costs by 2020 in cleaning (approaching 4 per cent), hospitality and hairdressing (around 3 per cent).
- 21** We also consider international rankings based on the bite where the UK has in recent years been positioned near the middle of the OECD countries with national minimum wages. This evidence is of limited value as a measure of the ambition of minimum wage levels because it provides no insight into employment effects, and ranking is misleading to the extent that it is influenced by differences in age structure between countries, and whether comparisons are made against pay of full-time workers or of all workers. Nonetheless, our analysis suggests that by 2020 the UK is set to move towards the upper end of the league table and, compared on a like-for-like basis, to near the top. The introduction of the NLW in 2016 however makes little difference to our position in the short-run.

Chapter 3: Recommending the Rate of the National Living Wage

- 22** The role of the LPC itself is changing. The requirements arising from the NLW likely mean a bigger monitoring responsibility as we seek to understand the impact of the policy. We aim to take advantage of the new research opportunities presented by significant change in the level. The change underlines our existing role in informing public debate on low pay through authoritative analysis, including highlighting barriers to higher pay.
- 23** It also means an adjustment in the LPC's wage-setting function. We are asked to continue to recommend rates for those aged under 25 and apprentices that will not damage employment. However, for workers aged 25 and over we will advise on the path to 60 per cent of median earnings, a target that is formally subject to 'sustained economic growth' and that was established with tolerance of some job losses (when setting the target the Government was aware of OBR estimates of reduced employment and hours worked).
- 24** The two roles are similar in requiring monitoring of trends in the macro-economy, GDP growth, employment growth, pay and productivity to inform advice to the Government. The two roles differ in that, unlike for younger workers and apprentices, a starting presumption of an increase to the 2020 target applies for the NLW as well as a different test of harm. We intend to monitor the NLW with a view to advising the Government on the path in light of the extent to which any employment effects differ from the starting assumptions.
- 25** Our key goal, as defined by Government, is the 60 per cent relative earnings objective. A relative target is better designed than a cash target to ensure the wage floor is ambitious without posing unanticipated risks – since it links the precise figure to the position of average earnings, which will in turn reflect wider economic performance.
- 26** In cash terms, the target at the time of writing (January 2016) equates to a NLW of £9.16 in 2020, slightly down from initial estimates of £9.35 in July 2015 because earnings growth forecasts have fallen, and set to change again when the OBR updates its forecasts in March 2016. The precise figure is very sensitive to the changing outlook: about two-thirds of an estimated 27 per cent cash increase in the NLW 2016-2020 is accounted for by forecast average earnings growth, which is estimated to increase by 17 percent over the period. For the purposes of the remit we will seek to recommend each year's NLW rate and provide an update on the implied 2020 level – but also show uncertainties around the level in light of economic trends.
- 27** The corollary of a flexible goal is that the path of the NLW to 2020 cannot follow fixed cash or percentage increments. We propose to focus on the bite path – calculating the current bite using the most recent Annual Survey of Hours and Earnings (ASHE), working out the 'on course' level by dividing the gap between the current bite level and 60 per cent by the number of years of rate decisions remaining to 2020, and using near-term forecasts (OBR hourly earnings index) to calculate the implied cash level. We will then draw on economic, labour market, pay and stakeholder evidence, and research to decide whether to depart from this level by varying the profile.

28 Stakeholders were divided on whether the NLW should be back-loaded or front-loaded, or follow a straight line. Our intention is that we will endeavour each year to consider the best possible trajectory, with economic shocks or other strong evidence likely to influence the path. In the absence of strong evidence, the default is likely to be a straight line trajectory to 60 per cent. This reflects the nature of the evidence on pay and its effects: measurement time lags mean we will probably be making our recommendations ahead of a clear understanding of the consequences of NLW increases. It also reflects the nature of a target: smaller increases in one year result in higher increases in other years. The distance to be travelled means that meaningfully to reduce increases early in the period or towards 2020 implies very large increases late in the period or early on.

Chapter 4: 21-24 Year Olds and the Adult Rate of the National Minimum Wage

29 Recommending the level of the adult rate of the NMW – now only directly affecting 21-24 year olds – requires us to consider the labour market position of this population as a discrete group – not, as previously, mainly as part of the population of workers aged 21 and over.

30 Data suggest that 21-24 year olds are in some ways like other adults but also share similarities with younger workers. The level of median pay (£8.26) is closer to that of 18-20 year olds (£6.83) than 25-30 year olds (£11.01). Unemployment for those not in full-time education is twice that of 25-30 year olds (10.6 per cent compared with 5.8 per cent), although it is half that of 18-20 year olds (19.2 per cent). Further, 21-24 year-old workers are disproportionately employed in low-paying and part-time jobs. Lower average pay is reflected in the bite, which for 21-24 year olds is the highest of any minimum wage age group: 78.7 per cent, compared with 75.1 per cent for 18-20 year olds for example. The bite is 59 per cent for 25-30 year olds.

31 Earnings growth however was higher for 21-24 year olds compared with older workers in April 2015: 3.2 per cent, twice that of workers aged 25 and over (1.5 per cent), and similar to 18-20 year olds (2.9 per cent). And they have also seen faster recent improvement in labour market outcomes than older workers. The numbers who were not in education, employment or training (NEET) have also fallen. Minimum wage coverage for 21-24 year olds also fell in 2015, as did relatively low levels of measured NMW underpayment.

32 The aggregate picture disguises significant internal variation. Workers aged 24 are close to 25 year olds in terms of pay, unemployment and bite, while 21 year olds are nearer to 20 year olds on the same measures, with a notably high bite (86.7 per cent). But the younger part of the cohort has also had faster pay growth and improvement in employment outcomes. Within the structure of the age band, 21 and 22 year olds are therefore a drag on the level of key indicators, but a boost to their rate of change, while the obverse is true for 24 year olds.

33 It is uncertain how employment for 21-24 year olds will be affected by the introduction of the NLW. On the one hand they are disproportionately employed in key sectors exposed to the NLW, often working part-time, so are potentially at risk of any negative effects – if employers substitute capital for labour, reduce hours, or (perhaps paying one rate regardless of age)

prefer older, more experienced workers. Research also suggests that higher minimum wages may slow job exits, potentially reducing 'replacement' opportunities. On the other hand, higher pay for workers aged 25 and over may encourage substitution of younger workers. Research has found, for example, that the employment of 16-17 year olds rises in response to either a fall in their real cost or a rise in the real cost of 21-24 year olds. If the pattern held for a relatively higher NLW, younger workers might gain an increasing share of new job opportunities.

- 34** In the absence of much evidence on the balance between these considerations, we show that maintaining or increasing the value of the adult rate relative to the NLW would lead to high bites and coverage for 21-24 year old workers. Were the adult rate (for 21-24 year olds) the same as the NLW in October 2016 coverage for 21-24 year olds would increase by half, while following the NLW to 2020 would triple coverage (36.1 per cent) and raise the bite to 90 per cent.
- 35** Equally, to reduce the value of the pay floor for 21-24 year olds relative to the NLW would also have implications. We show that to increase the adult rate in line with average earnings growth, while the NLW rose to 60 per cent of average earnings by 2020, would open up a gap in value: from 50 pence in April 2016 – 90 per cent of the NLW's value – to £1.21 an hour by 2020 – about 86 per cent of its value.

Chapter 5: Young People and Apprentices

- 36** Earnings growth was positive for both 16-17 year olds and 18-20 year olds in the year to April 2015, building on the picture set out in our last report. Pay for 18-20 year old workers grew by 2.9 per cent at the median, similar to 2014, and is the third successive year of relatively strong improvement. Pay for 16-17 year old workers grew by 2.7 per cent, more than three times faster than in 2014 (0.8 per cent). The bite fell for 18-20 year olds and was stable for 16-17 year olds. Real wages improved for a second successive year for 18-20 year olds, and for the first year since 2006 for 16-17 year olds.
- 37** Changes in the labour market position of young people were also encouraging. There were reductions in unemployment and increases in employment including more combined study and work. There was also improvement for young people not in full-time education, where the unemployment rate fell 2.4 percentage points for 18-20 year olds, and 2.1 percentage points for 16-17 year olds. The proportions who were not in education, employment or training (NEET) were flat overall, with a fall in unemployment for 18-20 year olds offset by a rise in inactivity. As in our 2015 Report, we found a slightly increased use of the 16-17 Year Old Rate, but use of the Youth Development Rate had fallen. Recorded underpayment increased slightly for 18-20 year olds but had halved for 16-17 year olds – though ASHE may be unreliable for these purposes as it may not capture the lowest-paid young workers.
- 38** Again, it is uncertain what impact the introduction of the NLW will have on younger workers. As with 21-24 year olds, 18-20 year olds are potentially at risk if employers generally use low-paid workers less. On the other hand, relatively higher pay for workers aged 25 and over, or for workers aged 21-24, may encourage substitution, and a higher employment share.

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- 39** As with the adult rate (21-24 year olds), we show that maintaining or increasing the value of the youth rates relative to the NLW would lead to high bites and coverage. At the most ambitious end, a pay floor for younger workers set at the level of at the NLW in 2016 would mean bites at or near 100 per cent, a seven-fold increase in coverage for 16-17 year olds (to 78 per cent) and a four-fold increase for 18-20 year olds (to 48 per cent). By 2020, a single rate, set at the NLW, would mean that around 70 per cent of 18-20 year olds and 90 per cent of 16-17 year olds would be on the minimum wage. Following the NLW, defined as similar annual percentage increases for the youth rates, softens these effects, though coverage would still increase by around 10 percentage points by 2020.
- 40** Conversely, increasing the rates in line with average earnings while the NLW increases to 60 per cent of average earnings would mean the cash difference between the NLW and the Youth Development Rate going up by half, from £1.90 in April 2016 to £2.87, by 2020. For the 16-17 Year Old Rate, that difference would rise by a third, from £3.33 to £4.57, by 2020.
- 41** Turning to apprentices, timing and data constraints limit our ability to reach conclusions this year. The sector has seen substantial policy changes since we last reported including a 21 per cent increase in the Apprentice Rate in October 2015, and the announcement of the Apprenticeship Levy. However, available data largely predates these changes or is of limited reliability.
- 42** Administrative data suggest that apprenticeship starts increased over the year to around 520,000, mainly reflecting trends in England, but remain lower than the numbers starting in 2011/12 (565,000) and 2012/13 (555,000). The increase was driven by workers aged 25 and over, who have more limited exposure to the Apprentice Rate of the minimum wage. The main available source on pay, ASHE, found very strong pay growth for the cohort covered by the Apprentice Rate overall – 11.1 per cent – for the year to April 2015, though not at most ages within the cohort, suggesting the increase reflected compositional changes. Underpayment was half the 2014 level – at around 4 per cent for those eligible for the Apprentice Rate. However, ASHE only captures a proportion of the apprentices recorded in administrative data, likely missing many of the lowest paid. We await the next Apprentice Pay Survey, a more reliable source for this group, to validate these results and to assess the impact of the 2015 increase in the Apprentice Rate.

Chapter 6: The Economic Context

- 43** Our recommendations on rates for workers under the age of 25 and apprentices in this report, and our recommendation in October on the level of the NLW, are both influenced by the economic context where we have previously said sustainable increases in the wage floor require growth in GDP, employment, earnings and productivity. Our 2015 recommendations were made in the context of solid growth, exceptionally strong employment growth and somewhat disappointing pay and productivity growth.
- 44** On economic growth, the picture is one of continued recovery. GDP growth has been revised up for 2013 and 2014 but fallen just short of forecasts for 2015. Although broadly in line with our expectations, there were some signs of softening in the second half of 2015, and overall

performance reflected continued dependence on services and business investment rather than exports. Looking ahead, forecast GDP growth for 2016-17 suggests it will continue at a similar pace – steady but below pre-recession trend. Consumer spending – the key motor in many low-paying sectors – looks set to be sustained by low inflation and real wage growth. Strengthening profitability in larger firms, easing of credit and low oil prices may amplify business investment, though there are also risks, mainly from trade, global volatility, and a decline in business confidence.

- 45** On labour market performance, the number of jobs continued to grow in 2015 though, unlike in recent years, performance was weaker in low-paying sectors than non low-paying sectors. Growth was strongest in the former in hospitality and leisure and small firms, with weakness in retail, childcare and domiciliary care. Looking ahead, forecasts suggest more modest but solid jobs growth. Hiring intentions remain positive including in sectors like hotels and restaurants. There has been little evidence of any reduced demand from the NLW and other changes to labour costs so far.
- 46** On pay, growth remains at about 2-3 per cent overall with – as last year – little sign that the strong jobs performance is translating into wage pressure. On the one hand, there was some strengthening over the course of 2015 with private sector growth above 3 per cent for much of the year, and forecasts suggesting earnings will pick up to 3.5 per cent in the fourth quarter of 2016 and then to 4 per cent. On the other hand, Average Weekly Earnings slowed in the second half of 2015 into 2016, and pay settlements remain at around 2 per cent. Early survey evidence finds little sign so far of the NLW affecting settlements. There is a similar picture on productivity: a modest pick-up in 2015 forecast to accelerate further.
- 47** Overall, it is clear that the NLW is a significant increase in pay relative to wider trends in earnings, at a time when firms are facing other costs, and there has been a dip in business confidence. However, output and jobs growth remain solid and business profitability has improved on several measures. Consumer spending remains robust and confidence high. The NLW is not expected by the Bank of England to have a major aggregate effect. But impacts may be important in sectors that have seen negative jobs growth like domiciliary care, retail and childcare, and in areas like Northern Ireland, Wales, the Midlands, and the North East.
- 48** Turning to the NMW, as Chapters 4 and 5 showed, young workers have recently seen strong employment and pay growth relative to other workers, though the latter has still been well below NLW levels. The sectors in which they disproportionately work – retail and hospitality – have mixed outlooks, with hospitality more robust.

Chapter 7: The Rates

- 49** The key decision this year concerned the effective pay floor for 21-24 year olds – the new adult rate, as created by the NLW – in addition to the 16-17 and 18-20 age bands. Stakeholders took different views in our consultation on how to approach this group.
- 50** On one side we received considerable evidence highlighting the fairness, legal and employment relations risks of a lower minimum wage for workers aged 21-24 than for

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workers aged 25 and over. A significant gap in the pay floor could lead to substitution of younger workers for older, and disadvantage those near the boundary between rates.

51 On the other, we heard concerns that the rate should not add to higher costs for employers arising from the NLW. A wage floor set too close to the NLW would mean very high coverage and bite, potentially pricing 21-24 year olds from employment, and risking substitution by workers aged 25 and over, or workers aged under 21.

52 In reaching our own view we bore in mind that the Government designed this age structure on the basis that younger workers are more exposed than older workers to employment risks of a higher pay floor. We also reflected that our objective for younger workers is to recommend a rate that should not significantly reduce employment (unlike for the NLW where our role is to advise the Government on a path where some consequences for jobs have been accepted). Labour market evidence remains our test of what is affordable.

53 Unemployment rates for 21-24 year olds are twice as high as those for 25-30 year olds and the bite for 21-24 year olds is already the highest for any age group, with the minimum wage now 79 per cent of median earnings. However, 21-24 year olds have seen rapid recent improvement in unemployment rates, pay growth in 2015 was twice as fast as for workers aged 25 and above, and – a new consideration for this group – NLW workers are set to become relatively more expensive, so the pay floor for workers aged 21-24 may be able to be higher than it otherwise would be.

54 Balancing these considerations, we recommend that the adult rate of the NMW (covering those aged 21-24) should increase by 3.7 per cent or 25 pence to £6.95. This is a higher increase than last year in both cash and percentage terms and means the relative value of the NMW for this age group and its real value in terms of CPI is likely to reach its highest ever level.

55 Our recommendation is made against the backdrop of mixed evidence on the economic outlook. Economic forecasts and evidence from the Government and others see good growth in the economy and employment over the next two years, with further recovery in the rate of pay increases to levels not seen persistently since the recession. We note, however, a slowing in the rate of pay increases and a number of downside risks to growth and employment. Should economic and pay performance prove weaker than anticipated, we will take this into account in future recommendations.

56 In recent years we have generally recommended smaller increases for workers aged under 21 than for older workers because their labour market position has been worse and the damaging consequences of unemployment more serious. However, last year we were able to improve the relative position of 18-20 year olds to reflect their encouraging wage and employment growth. We recommended a higher percentage increase in their pay floor than for workers aged 21 and over. We were more cautious for 16-17 year olds, whose jobs and pay growth were weaker.

- 57** This year the labour market position of 18-20 year olds has improved further, including sharply falling unemployment, solid median pay growth for a third successive year, and a falling bite. The position of 16-17 year olds has also begun to improve, though still lagging that of 18-20 year olds. In view of the strength and duration of the labour market improvement of 18-20 year olds we recommend a further significant step to recover their position, with an increase of 4.7 per cent or 25 pence in the Youth Development Rate to £5.55. For the 16-17 Rate, we recommend an increase of 3.4 per cent to £4.00.
- 58** The Apprentice Rate last year saw a 21 per cent increase, as well as a number of policy developments. Little information is available to assess the effect of these changes. In view of the uncertain effect of the very large increase last year we recommend a 3.0 per cent increase in the Apprentice Rate to £3.40, raising its value broadly in line with expected pay growth elsewhere in the economy.
- 59** We conducted a review of the accommodation offset in 2013. As a result we said that we would stage increases towards the adult rate when economic circumstances meant that the real value of the NMW was tending to rise – with the aim of encouraging the mutually beneficial provision of accommodation by employers. As indicated above, we are recommending an increase in the adult rate that should deliver a further increase in its real value. In recognition that the offset needs to increase significantly if timely progress is to be made towards the adult rate, we recommend that the accommodation offset be increased by 65 pence to £6.00 a day from 1 October 2016.
- 60** Our remit asked this year to provide indicative second year rates – in order to provide businesses with certainty. In response, we have provided an indication of direction of travel, rather than particular numbers. There are no specific pay forecasts for these age groups, and younger workers' pay is more volatile than older workers, so precise figures could very well mislead businesses. For example, between 2006 and 2009, year-on-year median earnings growth ranged from 1.7 per cent to 5.1 per cent for 18-20 year olds compared with a range of 3.6-4.0 per cent for all workers. Firms relying on them would have based decisions on spurious certainty.
- 61** However, because it is subject to a target, the introduction of the NLW enables us to give an indication of the future path for this rate of the minimum wage. Using ASHE 2015 and November 2015 OBR earnings growth forecasts, we project the rate for April 2017 currently putting the NLW on course for its 2020 target to be £7.64. This is based on an even bite path, and is likely to change. It could be on the high side in view of recent data showing slower growth in pay. We will revise the figure in the autumn when there will be new pay forecasts and baseline data. Updated pay forecasts at the time of the Budget (March 2016) may also change the projection.

62 We can also indicate the broad direction of travel for the other rates. Here, the evidence suggests that there are genuine differences in labour market performance that mean the pay floor for younger workers, including 21-24 year olds, cannot currently be set at the same level as that for workers aged 25 and over without risk to employment. In the absence of changes in relative performance, our view is that it may increase less rapidly for younger workers than that of workers aged 25 and over to 2020. Equally, there are countervailing concerns that will also play an important role in our recommendations: that, if too large a gap opens between the pay floor for different ages, there will be disincentives to hire or retain employees near the boundary and substitution by younger workers will be encouraged. We will balance these considerations in future recommendations.

Chapter 8: Compliance and Operation of the National Minimum Wage

- 63** The past year has seen strong progress in the compliance and enforcement regime including welcome extra funding – around 60 per cent higher than in 2013/14 – and a large increase in the level of arrears of NMW pay identified for workers by HMRC – over £8 million in the eight months to November 2015 compared with just over £3 million in the year to March 2015. This is a substantial achievement. However, there remain areas where further steps could be taken.
- 64** This matters particularly ahead of the introduction of the National Living Wage. Here the higher value and coverage, more complex structure, different cycle and timing, new name and possible reach into new sectors (for example security and call centres) all have the potential to affect levels of non-compliance – notwithstanding efforts to mitigate these risks through an information campaign. A complication is that measured payment below the minimum wage may increase even if actual underpayment does not – because the key earnings data, ASHE, will be collected at the same time as the NLW wage rise takes place.
- 65** Priorities for further action include the need for further analysis by Government of the extent of non-compliance – where encouraging headline estimates are much lower than those measured ‘from below’, notably in social care. This is important in being able to quantify the adequacy of the response, and ensure effective targeting of both awareness raising and enforcement.
- 66** A further priority is action to address uncertainty over hours – an underlying structural cause of disagreement over pay levels, and one set to grow in line with use of flexible contracts, where hours can change day by day. In the absence of this information workers cannot readily check and challenge any errors. We recommend that the Government reviews the current obligations on employers regarding provision of payslips and considers introducing a requirement that payslips of hourly-paid staff clearly state the hours they are being paid for. By definition, firms paying workers already have this information, the sharing of which should impose little new burden.

- 67** A third area is for HMRC to work more effectively with third parties, where stakeholders continue to report limited involvement following provision of intelligence about non-compliance, including limited feedback, discouraging future reports. We recommend a formal public protocol setting out arrangements to enable third party whistleblowing on breaches of the NMW, which should include provision for all possible feedback and continuing involvement in any resulting casework.
- 68** Finally, we note that some groups remain at greater risk than others of not receiving the NMW. We remain concerned about workers in social care, where reports continue of non-payment of travel time and sleepovers and the introductory rate of the NLW presents significant affordability challenges. We are also concerned about non-compliance among employers of apprentices where – in addition to existing high levels – there may in future be a risk of apprenticeship status being used inappropriately to reduce pay costs of older workers. We highlight too continued concern about interns, where we suggest targeted enforcement activity in the arts and entertainment industries (particularly film schools and TV).

Recommendations

National Minimum Wage Rates

We recommend that the adult rate of the NMW (21-24 year olds) should increase by 3.7 per cent to £6.95 an hour from 1 October 2016.

We recommend an increase in the Youth Development Rate of 4.7 per cent to £5.55 an hour from 1 October 2016.

We recommend an increase in the 16-17 Year Old Rate of 3.4 per cent to £4.00 an hour from 1 October 2016.

We recommend that the Apprentice Rate should be increased by 3 per cent to £3.40 an hour from 1 October 2016.

Accommodation Offset

We recommend that the accommodation offset be increased by 65 pence to £6.00 a day from 1 October 2016.

Compliance and Enforcement

We recommend that the Government reviews the current obligations on employers regarding provision of payslips and considers introducing a requirement that payslips of hourly-paid staff clearly state the hours they are being paid for.

We recommend that the Government establishes a formal public protocol for HMRC to handle third party whistleblowing on breaches of the NMW, which should include arrangements for giving all possible feedback to relevant third parties and appropriate continuing involvement in any resulting casework.

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Chapter 1

The Impact of the National Minimum Wage

Introduction

- 1.1** The National Minimum Wage (NMW) was established in 1999 to raise the pay of the lowest-paid workers. It was introduced against the backdrop of significant public concern about cases of exploitation. The perennial challenge in setting it has been making recommendations likely to raise earnings without damaging employment.
- 1.2** Economic theory suggests that, if the cost of an extra hour of work is priced above the value it creates for employers, it is possible that a minimum wage will reduce labour demand and damage employment. But we do not know where that point is: it is very difficult to model accurately and ultimately an empirical question. So, the Low Pay Commission (LPC) has recommended the rate year by year, making a judgement on the basis of extensive qualitative and quantitative evidence.
- 1.3** This chapter reviews the latest position on both the short-run and long-run impacts drawing on economic and statistical analysis, commissioned research, independent research, stakeholder views, and insights from our visits programme. It suggests that, over its lifetime, the NMW has raised pay without damaging employment. Firms have coped using a variety of means, with modest negative effects. But there has been more muted impact on pay further up the earnings distribution.
- 1.4** The short-term picture relates to the impact of the most recent increases. It is too soon to evaluate the impacts of the October 2015 increases, which only took effect three months ahead of the time of writing. But it is possible to make a preliminary evaluation of the October 2014 increases. Here we once again find that the increases appear to have been borne well, albeit not without pressures. This provides the context to the introduction of the National Living Wage (NLW), considered in Chapter 2.

2015 National Minimum Wage Upratings

- 1.5** When we met in January 2015 to determine our recommendations for the October 2015 minimum wage rates, the outlook for inflation, wages and productivity were at the centre of our deliberations. There were arguments for and against a substantial increase in the adult rate. Those in favour argued that growth remained strong with the recovery well established and set to be sustained with a further boost from the fall in oil prices. The labour market had also continued to exceed expectations with the adult employment rate back to its pre-recession peak despite absorbing a large increase in labour supply. These improvements in employment were observed across the UK. There was also new evidence of improvement

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for younger workers. Low-paying sectors had continued to match or surpass job growth in the economy as a whole, suggesting that the record bite of the NMW had not affected the employment of low-paid workers. Research findings continued to be benign, while the sluggish wage and productivity performance was forecast to end with promising forecasts for 2015 and 2016.

- 1.6** In our previous 2014 Report, we had judged that economic recovery allowed us to take a first step towards larger increases. Influential in our decision was a more optimistic economic outlook, and a strongly performing labour market. We cautioned that it was too early to know how strong and sustained the recovery would be but judged that the economy could afford the first real terms increase in the value of the minimum wage since the onset of recession. And provided the economy continued to recover, we expected to recommend further progressive improvements, restoring and then surpassing the previous highest real level of the minimum wage.
- 1.7** However, other arguments suggested caution. These included that growth was still too dependent on consumer demand (and credit) to convince that it was sustainable. There were also serious economic risks from overseas, particularly the Eurozone. The bite of the NMW was also at its highest on record, being particularly high across the low-paying sectors as a whole and also in micro firms. Productivity and wage growth remained weak, even correcting for compositional effects, and lower inflation was a mixed blessing. Previous NMW increases above average earnings may have been affordable only because they were below increases in prices. Low inflation, while bringing boosts to real incomes within sight, also implied reduced scope for employers to pass on the cost of large wage increases in higher prices.
- 1.8** In our 2015 Report we noted that the strong performance on employment and unemployment had continued, beating expectations. Growth had been sustained while inflation and the oil price had fallen. Nominal pay growth had, however, remained sluggish. As a result, the bite (the minimum wage as a proportion of median wages) was at its highest ever. We cautioned that sudden increases in the minimum wage could put jobs at risk – not least bearing in mind pressure on low-paying sectors and small firms. However, we judged that the recovery would allow a further increase in the real and relative value of the minimum wage. A persuasive factor in our decision was evidence that firms had been able to adjust to previous increases without damaging employment. Indeed, there had been very strong jobs growth overall and in the low-paying sectors. We recommended that the adult rate of the National Minimum Wage be increased by 20 pence from £6.50 an hour to £6.70 an hour in October 2015, an increase of 3.1 per cent. With forecast inflation at around 1.0-1.5 per cent, that would represent a bigger real increase than in 2014.
- 1.9** For the two youth rates we recommended different percentage increases to reflect their recent labour market outcomes. Those aged 18-20 had been doing better in terms of both employment and earnings than those aged 21 and over, while those aged 16-17 had been doing much worse. This resulted in recommendations to increase the Youth Development Rate by 3.3 per cent to £5.30 an hour but an increase of 2.1 per cent for the 16-17 Year Old Rate. These recommendations were accepted by the Coalition Government in March and confirmed by the new Government after the General Election. However, it did not accept our

proposed increase in the Apprentice Rate of 2.6 per cent to £2.80, implementing instead an increase to £3.30, in an attempt to increase the appeal and quality of apprenticeships.

1.10 It is still too early to assess fully the impact of these minimum wage increases, which did not take effect until 1 October 2015. However, as in common with previous years, we now have enough information to undertake an initial evaluation of the changes to the NMW that took effect a year earlier, on 1 October 2014. The adult rate of the NMW was then increased by 3.0 per cent from £6.31 to £6.50 an hour. We recommended a lower increase of around 2 per cent for the two youth rates and the Apprentice Rate. This meant an increase of 2.0 per cent in the Youth Development Rate from £5.03 to £5.13 an hour and a 1.9 per cent increase in the 16-17 Year Old Rate from £3.72 to £3.79 an hour. The Apprentice Rate also increased by 1.9 per cent from £2.68 to £2.73 an hour. The evolution of the rates of the National Minimum Wage is shown in Table 1.1.

Table 1.1: National Minimum Wage Hourly Rates, UK, 1999-2015

	Adult rate		Youth Development Rate		16-17 Year Old Rate		Apprentice Rate	
	Rate	Change	Rate	Change	Rate	Change	Rate	Change
	£	%	£	%	£	%	£	%
Oct 2015-	6.70	3.1	5.35	3.3	3.87	2.1	3.30	20.9
Oct 2014-Sept 2015	6.50	3.0	5.13	2.0	3.79	1.9	2.73	1.9
Oct 2013-Sept 2014	6.31	1.9	5.03	1.0	3.72	1.1	2.68	1.1
Oct 2012-Sept 2013	6.19	1.8	4.98	0.0	3.68	0.0	2.65	1.9
Oct 2011-Sept 2012	6.08	2.5	4.98	1.2	3.68	1.1	2.60	4.0
Oct 2010-Sept 2011	5.93	2.2	4.92	1.9	3.64	2.0	2.50	-
Oct 2009-Sept 2010	5.80	1.2	4.83	1.3	3.57	1.1		
Oct 2008-Sept 2009	5.73	3.8	4.77	3.7	3.53	3.8		
Oct 2007-Sept 2008	5.52	3.2	4.60	3.4	3.40	3.0		
Oct 2006-Sept 2007	5.35	5.9	4.45	4.7	3.30	10.0		
Oct 2005-Sept 2006	5.05	4.1	4.25	3.7	3.00	0.0		
Oct 2004-Sept 2005	4.85	7.8	4.10	7.9	3.00	-		
Oct 2003-Sept 2004	4.50	7.1	3.80	5.6				
Oct 2002-Sept 2003	4.20	2.4	3.60	2.9				
Oct 2001-Sept 2002	4.10	10.8	3.50	9.4				
Oct 2000-Sept 2001	3.70	2.8	3.20	0.0				
Jun 2000-Sept 2000	3.60	0.0	3.20	6.7				
Apr 1999-May 2000	3.60	-	3.00	-				

Source: Low Pay Commission (LPC).

Notes:

a. From October 2010, those aged 21 have been covered by the adult rate. Previously they had been covered by the Youth Development Rate.

'-' denotes not applicable.

1.11 The remainder of this chapter focuses on the impact of the adult rate of the NMW. We consider the implications of the introduction of the National Living Wage, for those aged 25

and over, on the NMW, which will apply directly only to 21-24 year olds in future, in Chapter 4. Chapter 5 considers the impact of the youth rates and the Apprentice Rate.

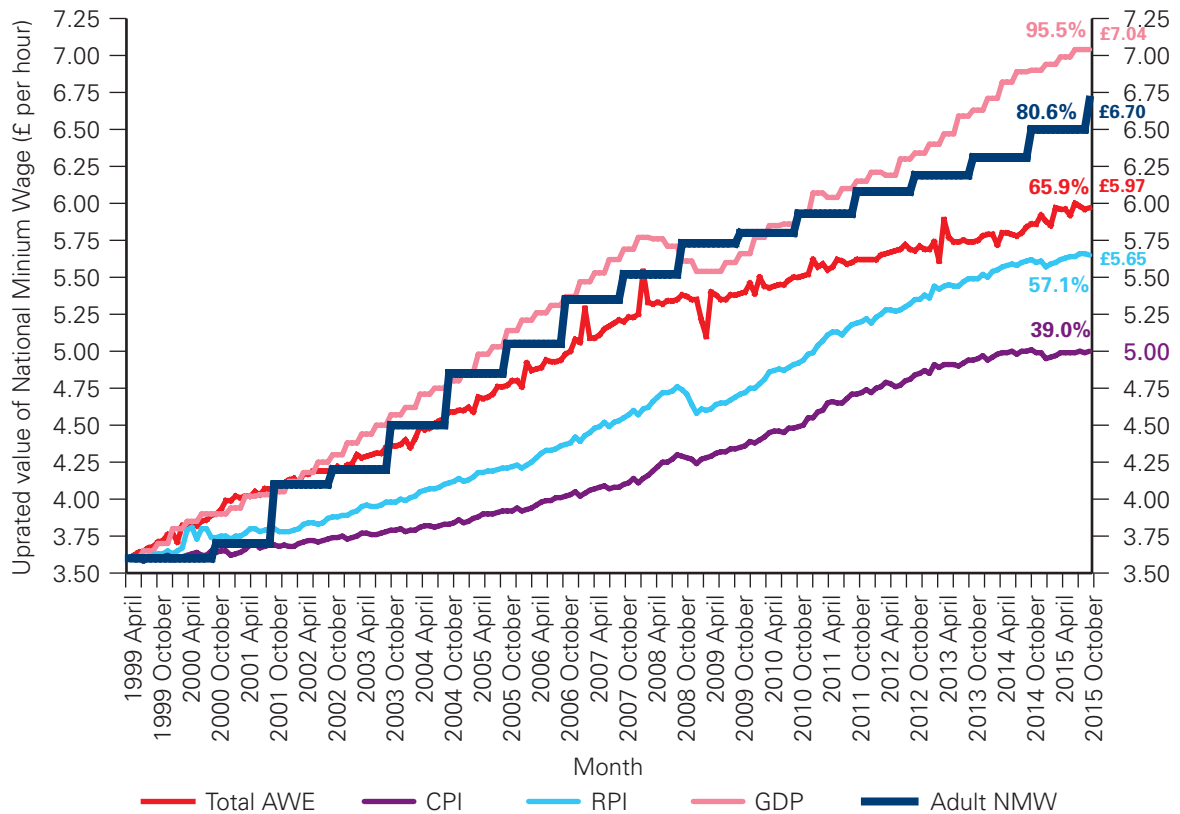
Impact on Earnings and Pay

- 1.12** We start by investigating whether the introduction and subsequent increases in the minimum wage have had an impact on earnings (and labour costs). Clearly if the rates were set too low to affect wages, there would likely be no consequent impact on employment.
- 1.13** In order to do this, we mainly use official earnings data sources such as the Annual Survey of Hours and Earnings (ASHE), Average Weekly Earnings (AWE) and the Labour Force Survey (LFS), but we also consider information from various pay research organisations.
- 1.14** We begin with an overview of how the adult rate of the NMW has increased in comparison with general price inflation, and changes to average earnings and economic output. We then look in more detail at the impact of the adult rate of the NMW on: earnings; pay settlements; and pay structures.

National Minimum Wage Relative to Prices and Earnings

- 1.15** By October 2015, the NMW had increased by over 86 per cent since it was introduced on 1 April 1999, from £3.60 an hour to £6.70 an hour. That rate of increase, as shown in Figure 1.1, has been faster than both price inflation and average earnings growth but has not quite kept up with the growth in nominal output. Between April 1999 and October 2015, average earnings grew by around 63.3 per cent, more than 23 percentage points less than the increase in the NMW – a gap of nearly 1.5 percentage points a year. Over that period price inflation increased more slowly, whether measured by the Retail Price Index (RPI) or the Consumer Price Index (CPI) – the two main price inflation measures used for pay bargaining and pay-setting purposes. RPI increased by around 57 per cent and CPI by around 39 per cent. As a consequence, the real value of the NMW increased significantly between April 1999 and October 2015. However, it should be noted that increases in the NMW did not keep pace with increases in the value of output of the economy, despite the recession in 2008-09, with nominal gross domestic product (GDP) increasing by over 95 per cent.
- 1.16** We have made our recommendations for the adult rate of the NMW based on our judgement about its affordability in the economy. If, instead, the adult rate of the NMW had been based on a simple formula related to average earnings growth, it would have risen to £5.97 an hour by October 2015 – 73 pence lower than its actual level. If that formula had instead been based on simple measures of price inflation, the NMW would now be £5.65 an hour using RPI or £5.00 an hour using CPI. That would be £1.05 or £1.70 an hour below its current level. In contrast, increasing the NMW in line with nominal GDP would have meant that it was 34 pence higher than its current level, at £7.04 an hour.

Figure 1.1: Increases in the Real and Relative Value of the National Minimum Wage, UK, 1999-2015



Source: LPC estimates based on ONS data: AEI including bonuses (LNM0), 1999, AWE total pay (KAB9), 2000-15, CPI (D7BT), 1999-2015, and RPI (CHAW), 1999-2015, monthly; and nominal GDP (YBHA), 1999-2015, quarterly, seasonally adjusted (AWE, AEI and GDP only), UK (GB for AWE and AEI).

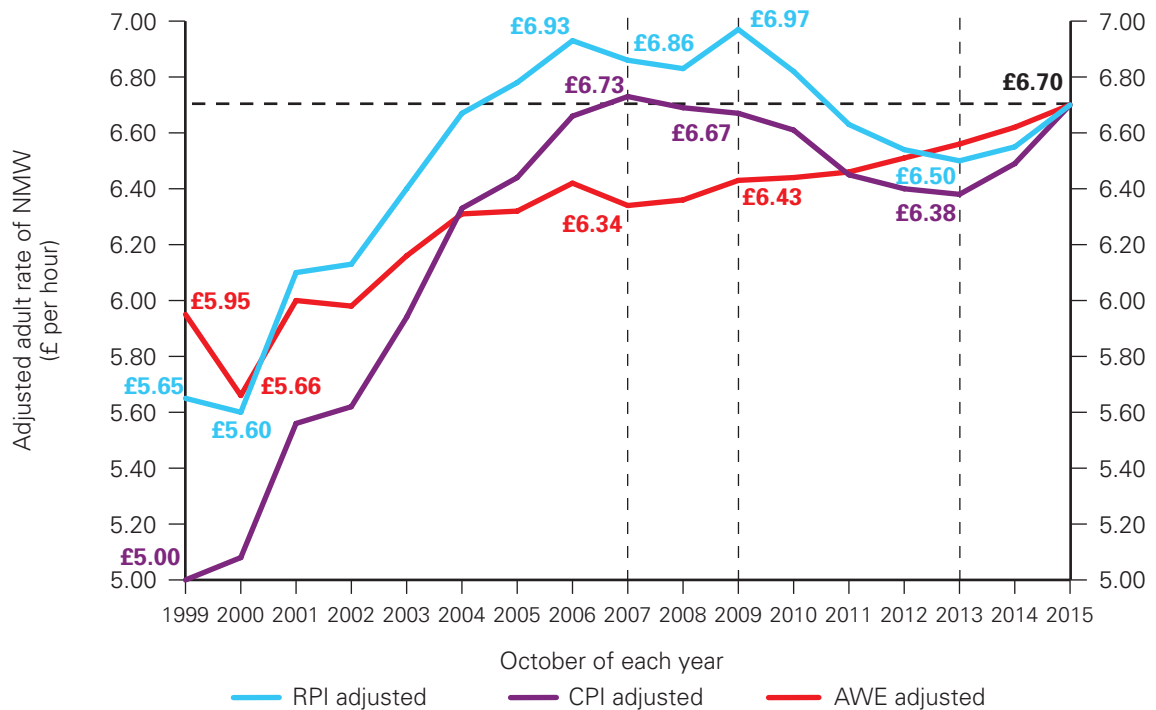
Note: The AWE series began in January 2000 and the AEI series ended in July 2010. Our earnings series is estimated using AEI (including bonuses) from April 1999-January 2000 and AWE (total pay) from January 2000-October 2015.

1.17 Figure 1.1 also shows that there have been three distinct phases in the evolution of the NMW. The first, introductory phase, saw the NMW introduced at a relatively cautious level and uprated roughly in line with CPI price inflation in its first 18 months, while the Commission awaited the outcome of research on employment and wage impacts. The second, more expansive, phase came after this research and analysis suggested that the NMW had not had a significant adverse effect on jobs or the economy. This phase was characterised by increases in the NMW that were above average earnings growth (and well above price inflation). Again, both research and in-house analysis conducted found little impact on jobs, hours or the economy, outside of a few specific groups at key times in the development of the NMW. However, the onset of recession and a downturn in the low-paying sector jobs market led to a third phase that was characterised by reductions in the real value of the NMW as we made recommendations which sought to avoid pricing workers out of employment at a time when the economy was shrinking (although increases were roughly in line with average wage increases they were below price inflation). In our 2014 Report, we began to discuss whether we might have started a fourth phase characterised by faster growth in the NMW. The introduction of the National Living Wage represents a step change in that direction.

National Minimum Wage

1.18 These phases are also evident in Figure 1.2, which shows the real and relative value of the adult rate of the NMW since 1999. When looking at the real value of the NMW, it shows two distinct periods: before and after the onset of recession. Using CPI as the measure of inflation, the real value of the NMW (in 2015 prices) increased sharply from £5.00 an hour in 1999 to £6.73 an hour in 2007, an average annual real increase of 4.3 per cent. The real value of the NMW then declined, falling to £6.38 in October 2013, a total real loss of 5.2 per cent, or 0.9 cent each year, since 2007. However, the recent 3 per cent increases in the NMW in October 2014 and October 2015 have almost completely restored that lost value: with the real value of the NMW in October 2015 just 3 pence (0.4 per cent) below its previous peak (£6.73 an hour in October 2007).

Figure 1.2: Real and Relative Value of the National Minimum Wage, UK, 1999-2015



Source: LPC estimates based on ONS data: AEI including bonuses (LNMQ), 1999-2000, AWE total pay (KAB9), 2000-15, CPI (D7BT), 1999-2015, and RPI (CHAW), 1999-2015, monthly; and nominal GDP (YBHA), 1999-2015, quarterly, seasonally adjusted (AWE, AEI and GDP only), UK (GB for AWE and AEI).

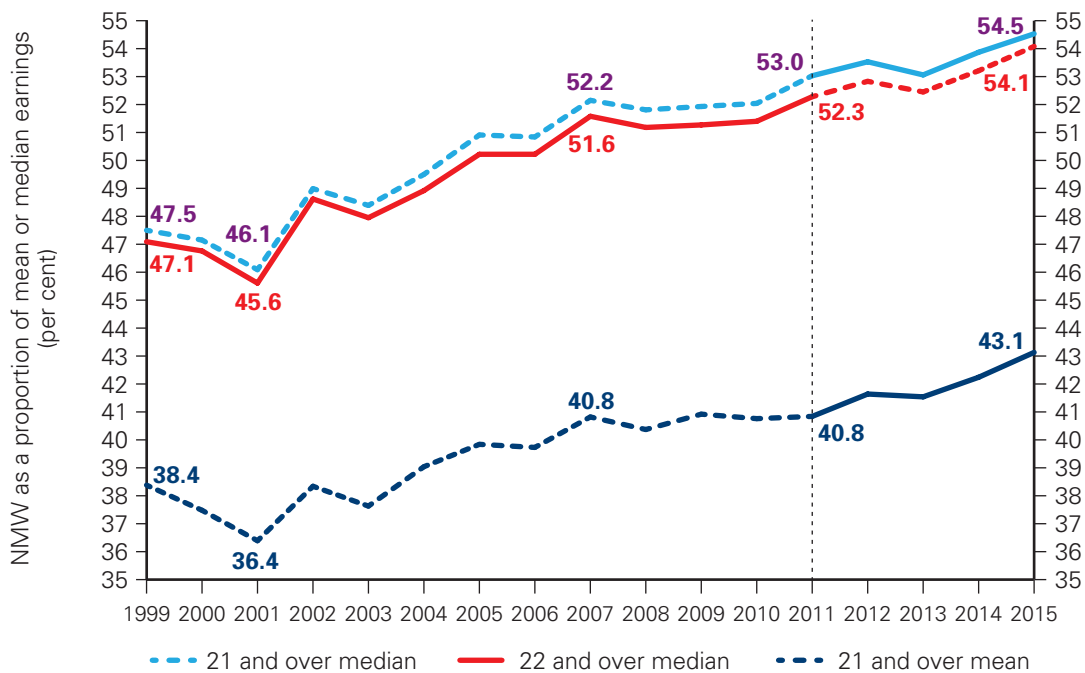
Note: The AWE series began in January 2000 and the AEI series ended in July 2010. Our earnings series is estimated using AEI (including bonuses) from April 1999-January 2000 and AWE (total pay) from January 2000-October 2015.

1.19 Using RPI instead of CPI reveals a similar pattern, although the real value of the NMW peaks in 2009 on this measure rather than 2007 using CPI. Between 2000 and 2006, the real value of the NMW increased by 23.8 per cent, or 4.0 per cent each year on average. The real value then fell back a little as RPI inflation outstripped increases in the NMW. However, the rapid fall in interest rates that led to the RPI measure of inflation becoming negative for much of 2009 resulted in an increase in the real value of the NMW, despite it increasing by only 1.2 per cent in nominal terms. From that peak of £6.97 an hour in 2009 it then fell back sharply in the aftermath of the recession to £6.50 in October 2013, a loss of 6.7 per cent, or 1.7 per cent each year. As with the CPI measure, the real value of the NMW has rebounded in 2014 and 2015 but, in October 2015, it was still 3.9 per cent below its peak.

1.20 Despite the falls in the real value of the NMW since the onset of recession, Figure 1.2 also shows that the relative value of the NMW (in 2015 wage terms) has increased from £5.66 an hour in 2000 to £6.70 an hour in 2015. There appear to be three distinct phases in that increase. Between 2000 and 2006, the relative value increased by 13.4 per cent (or 2.2 per cent each year), it then stabilised between 2006 and 2010, before increasing again between 2010 and 2015, growing by 4.0 per cent (or 0.8 per cent each year) – a slower pace than before the recession but still a sustained rise. Indeed, the value of the NMW relative to average earnings was at its highest ever in October 2015, at £6.70.

1.21 A consequence of the relative increase in the value of the NMW has been an increase in the bite of the minimum wage (its value relative to some point on the earnings distribution, such as the median or mean). Figure 1.3, using wages adjusted to take account of discontinuities in the ASHE time series, shows the bite at both the mean and the median has increased over time. When the minimum wage was introduced the bite at the median was 47.1 per cent for those aged 22 and over. By 2011, when 21 year olds became eligible for the adult rate, the bite at the median for those aged 22 and over was 52.3 per cent. Since 2011, the bite at the median has continued to increase for those aged 21 and over, advancing from 53.0 per cent to reach 54.5 per cent in 2015. The bite at the mean has also increased, rising from 40.8 per cent to 43.1 per cent. The sharp increases in the bite – between 2001 and 2007, and from 2013 – can also be clearly seen.

Figure 1.3: Bite of the Adult Rate of the National Minimum Wage, UK, 1999-2015



Source: LPC estimates of earnings using adjusted earnings 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 2011-15, standard weights, including those not on adult rates of pay and apprentices, UK.
 Note: Earnings data have been adjusted to account for the discontinuities in the ASHE data series.

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1.22 The bite at the mean and median was at its highest on record in April 2015. Indeed Table 1.2 shows a similar pattern in the change in bite across the earnings distribution, with the bite at its highest whether that is compared with the lowest decile, lowest quartile, upper decile or upper quartile. For consistency with the pre-2010 coverage of the NMW, the analysis here compares the bite across time for those aged 22 and over. The bite at the lowest decile was around 83.9 per cent when the NMW was introduced in April 1999 and since 2004 has increased gradually reaching 92.7 per cent in 2015 – an increase of 8.8 percentage points. That is a smaller percentage change than compared with the lowest quartile, suggesting some compression of wages between the lowest quartile and the lowest decile. The bite at the lowest quartile has increased by 11.0 percentage points from 65.1 per cent to 76.1 per cent. The increase in the bites at the upper quartile and the upper decile has been particularly notable since 2010 – rising from 33.2 per cent to 36.1 per cent at the upper quartile and from 22.9 per cent to 25.0 per cent at the upper decile in 2015.

Table 1.2: Bite of the National Minimum Wage at Various Points on the Earnings Distribution for Those Aged 22 and Over, UK, 1999-2015

	Data year (April)	Adult NMW (£)	Adult rate of the minimum wage as % of					
			Lowest decile	Lowest quartile	Median	Mean	Upper quartile	Upper decile
ASHE without supplementary information	1999	3.60	83.9	65.1	45.7	36.6	30.4	21.1
	2000	3.60	81.3	64.2	45.3	35.7	29.8	20.6
	2001	3.70	80.3	63.0	44.3	34.6	29.0	19.9
	2002	4.10	85.2	67.5	47.2	36.5	30.8	21.0
	2003	4.20	82.4	65.8	46.5	35.9	30.5	20.8
	2004	4.50	84.9	67.6	47.5	37.2	31.3	21.4
ASHE with supplementary information	2004	4.50	85.6	68.3	48.1	37.7	31.6	21.7
	2005	4.85	88.0	69.9	49.4	38.5	32.4	22.1
	2006	5.05	87.5	69.9	49.4	38.3	32.3	22.1
ASHE 2007 methodology	2006	5.05	87.5	70.0	49.7	38.5	32.5	22.3
	2007	5.35	89.2	71.6	51.0	39.6	33.6	22.9
	2008	5.52	89.6	71.6	50.6	39.2	33.2	22.8
	2009	5.73	89.7	71.7	50.8	39.7	33.3	22.9
	2010	5.80	89.6	72.0	50.9	39.6	33.2	22.9
	2011	5.93	91.2	73.4	51.7	39.7	33.9	23.2
ASHE 2010 methodology	2011	5.93	91.2	74.1	52.3	40.5	34.0	23.3
	2012	6.08	91.7	74.7	52.8	41.3	34.7	24.0
	2013	6.19	91.7	74.4	52.5	41.2	34.8	24.1
	2014	6.31	91.9	75.5	53.2	41.9	35.3	24.4
	2015	6.50	92.7	76.1	54.1	42.8	36.1	25.0

Source: LPC estimates based on ASHE: without supplementary information, April 1997-2004; with supplementary information, April 2004-06; 2007 methodology, April 2006-11; and 2010 methodology April 2011-15, standard weights, including those not on adult rates of pay and apprentices, UK.

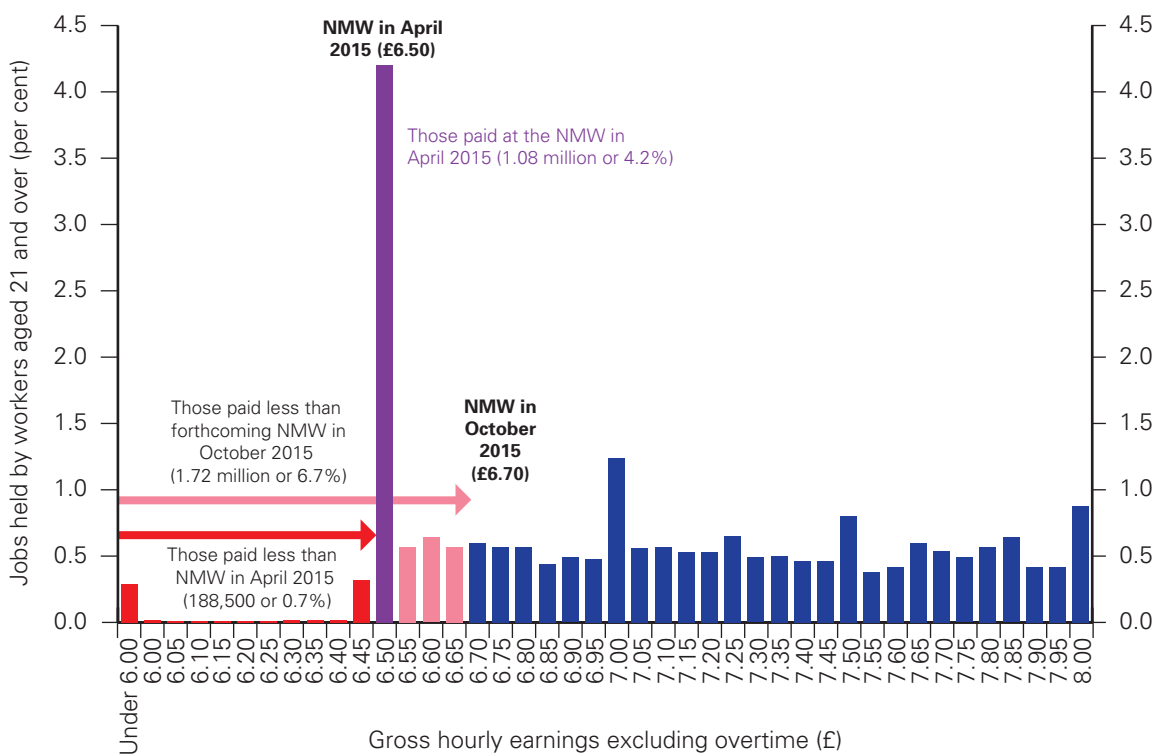
Note: Direct comparisons before and after 2004, before and after 2006, and before and after 2011 should be made with care due to changes in the data series.

1.23 It should be noted that this analysis only takes into account the 3.0 per cent increase in the NMW in October 2014. It does not take account of the 3.1 per cent increase in the NMW in October 2015. The latest Office for Budget Responsibility (OBR, 2015c) forecasts suggest that wages will have grown by 3.5 per cent between April 2015 and April 2016, although the latest data for November 2015 recorded wage growth of only 2.0 per cent over the year. The out-turn for the bite in April 2016 will therefore depend on the wage growth from now to April 2016.

Earnings Distributions

1.24 As the NMW has clearly increased its value relative to average earnings, we now look at its impact on coverage and the earnings distribution. The impact of the minimum wage can clearly be seen in Figure 1.4 which shows a spike in the hourly earnings distribution for those aged 21 and over in April 2015 at £6.50, the adult rate of the NMW at that time. The number of employees paid at the NMW spike was the highest on record at 1.08 million employees (about 4.2 per cent), slightly up on the previous year (1.02 million or 4.0 per cent)

Figure 1.4: Hourly Earnings Distribution for Employees Aged 21 and Over, UK, 2015



Source: LPC estimates based on ASHE, 2010 methodology, low-pay weights, including those not on adult rates of pay and apprentices, UK, April 2015.

Note: The hourly earnings distribution is shown in five pence pay bands.

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- 1.25** Although not necessarily evidence of non-compliance, a further 189,000 employees (about 0.7 per cent) were paid less than the minimum wage in April 2015. This was slightly lower than the percentages observed in the previous three years (around 0.8 per cent). Those who may legitimately be recorded as being paid less than the adult rate of the minimum wage in that pay period include some apprentices; those living in accommodation provided by their employer; some paid on a bonus or commission basis; and in some circumstances those on Fair Piece Rates.
- 1.26** Figure 1.4 also shows that in April 2015, about 1.72 million employees (6.7 per cent) were paid less than the then forthcoming minimum wage rate of £6.70 an hour, which came into effect in October 2015. This was similar to the coverage of the then forthcoming rate in 2014, but much higher than the previous three minimum wage increases. In April 2011, April 2012 and April 2013, around 5.5-5.8 per cent (or 1.2-1.4 million) were paid less than the then forthcoming NMW rates.
- 1.27** The analysis above was based on 5 pence bands of the minimum wage and earnings data used were for those aged 21 and over. However, it is not possible to make longer-term comparisons over time using this definition. First, due to concerns about the specificity of the data, the numbers are based on ten pence pay bands prior to 2004 (narrower pay bands are considered too unreliable). Second, the adult rate was only extended to cover 21 year olds in October 2010 – prior to this point only those aged 22 and over were entitled to the adult rate of the NMW. Using a consistent definition – ten pence pay bands and those aged 22 and over – Table 1.3 shows the trends since the minimum wage was introduced in the numbers paid less than the NMW, at the NMW and below the forthcoming rate.
- 1.28** We can see from Table 1.3 that the number of jobs paid at the NMW and held by those aged 22 and over was 1.14 million or 4.5 per cent in April 2015. This was an increase of about 30,000 on April 2014, and was the highest number and proportion recorded since the introduction of the National Minimum Wage. Table 1.3 also shows several distinct phases in the coverage of NMW workers. Between 2000 and 2006, the number of employees in NMW jobs fluctuated between 400,000 and 650,000 (1.8-2.8 per cent), before increasing to around 700,000 (about 3.0 per cent) from 2007 to 2010. Since then it has risen above 1.0 million (or 4.0-4.5 per cent).
- 1.29** The numbers covered by the forthcoming adult rate of the NMW are influenced by the size of the forthcoming increase. Table 1.3 shows that the coverage of the forthcoming rate has been increasing since 2009 – when it was 850,000 (3.6 per cent) in the lead up to the smallest NMW increase on record (just 1.2 per cent). It has since increased – rising above 1.5 million (6.1 per cent) for the first time in 2014 and was at its highest in 2015 when it reached over 1.6 million (6.4 per cent).

Table 1.3: Jobs Held by Those Aged 22 and Over, Paid At and Below the Existing National Minimum Wage and the Forthcoming National Minimum Wage, UK, 1999-2015

	Data year (April)	Adult minimum wage rate in April	Jobs held by adults paying less than the adult rate in April			Jobs held by adults paying the adult rate (ten pence band) in April		Forthcoming October adult minimum wage rate	Jobs held by adults in April paying less than the forthcoming October rate		
		£	000s	%	000s	%	£	000s	%		
ASHE without supplementary information	1999	3.60	460	2.1	723	3.3	3.60	458	2.1		
	2000	3.60	190	0.9	551	2.5	3.70	746	3.3		
	2001	3.70	210	0.9	394	1.8	4.10	1,326	5.9		
	2002	4.10	290	1.3	630	2.8	4.20	920	4.1		
	2003	4.20	210	0.9	445	2.0	4.50	1,022	4.5		
	2004	4.50	230	1.0	558	2.5	4.85	1,399	6.2		
ASHE with supplementary information	2004	4.50	233	1.0	408	1.8	4.85	1,209	5.3		
	2005	4.85	233	1.0	484	2.1	5.05	1,147	5.0		
	2006	5.05	239	1.0	544	2.4	5.35	1,289	5.6		
ASHE 2007 methodology	2006	5.05	238	1.0	544	2.4	5.35	1,289	5.6		
	2007	5.35	231	1.0	696	2.9	5.52	1,215	5.1		
	2008	5.52	212	0.9	731	3.1	5.73	1,245	5.2		
	2009	5.73	181	0.8	726	3.1	5.80	846	3.6		
	2010	5.80	203	0.9	698	2.9	5.93	981	4.1		
	2011	5.93	208	0.9	971	4.0	6.08	1,297	5.4		
ASHE 2010 methodology	2011	5.93	187	0.8	1,007	4.2	6.08	1,315	5.5		
	2012	6.08	186	0.8	992	4.2	6.19	1,204	5.0		
	2013	6.19	181	0.7	1,013	4.2	6.31	1,280	5.3		
	2014	6.31	176	0.7	1,111	4.5	6.50	1,515	6.1		
	2015	6.50	172	0.7	1,142	4.5	6.70	1,607	6.4		

Source: ONS central estimates using ASHE without supplementary information and LFS, UK, April 1999-2004; LPC estimates based on ASHE: with supplementary information, April 2004-06; 2007 methodology, April 2006-11; 2010 methodology, April 2011-15, low-pay weights, including those not on adult rates of pay and apprentices, UK.

Notes:

- a. Prior to 2004, all our analyses were conducted in ten pence pay bands using the ONS central estimate methodology. In contrast to elsewhere in this report, where five pence pay bands are used, we use ten pence pay bands in this table.
- b. Direct comparisons before and after 2004; those before and after 2006; and those before and after 2011, should be made with care due to changes in the data series.

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- 1.30** Apart from the period of the introduction of the NMW (460,000 or 2.1 per cent) and in the immediate aftermath of the largest uprating of the NMW in October 2001 (290,000 or 1.3 per cent), the numbers paid less than the NMW appear relatively stable, having fallen from around 230,000 (1.0 per cent) between 2004 and 2007 to around 200,000 (0.9 per cent) between 2008 and 2010. Since then the number has continued to fall, reaching 172,000 (0.7 per cent) in 2015. However, this needs cautious interpretation. Chapter 8 considers this issue in more detail, but in summary 0.7 per cent appears low but may not capture those paid less than the minimum wage in the grey economy. The level of non-compliance implied by this measure is lower than appears to be the case if estimates from other surveys focused on different groups like social care workers, apprentices and interns are aggregated. Finally that ASHE figure for the percentage paid less than the minimum wage is estimated as a proportion of the whole labour force, which is arguably not the right comparator for considering non-compliance. An alternative comparator would consider just those likely to be paid the NMW. We consider both approaches in Chapter 8.
- 1.31** It is clear that the relative value and coverage of the NMW have increased since it was introduced in 1999, and that this is particularly evident over the last two years. We now consider the implications of this for the earnings distribution. We can rank employees by their earnings, splitting them into 100 equally-sized groups (percentiles), and then order them from the lowest paid to the highest paid. We can then look at how each percentile group's earnings have changed over time. We first consider broad groups before looking in greater depth at individual percentiles.
- 1.32** Table 1.4 shows that between 1975 and 2015, the period for which we have reasonably consistent data (after adjusting for methodological changes in the earnings series), mean wage growth averaged around 6.3 per cent a year, compared with 6.1 per cent a year at the median. It should be noted that wage growth at the top of the earnings distribution was generally greater (6.4 per cent or higher) than that at the bottom (around 6.0 per cent). We can consider the impact of the National Minimum Wage by looking at the periods before and after it was introduced. The National Minimum Wage is generally pitched at around the 5th percentile. Between 1975 and 1997, earnings growth in the top half of the earnings distribution was much greater (over 9 per cent a year) than in the bottom half (around 8 per cent). However, after the introduction of the minimum wage, we can see that wage growth at the bottom was stronger (3.4-3.9 per cent), compared with around 3 per cent in the top half. This suggests that the National Minimum Wage made a difference to the wage distribution though very much focused on the bottom end.
- 1.33** We can also compare how these earnings groups fared during previous recessions and recoveries. The data cover three recessionary periods – 1979-1982; 1989-1992; and 2006-2011. In the first two of these, in the early 1980s and early 1990s, it is clear from Table 1.4 that wage growth in the top part of the earnings distribution was much greater than in the bottom half. The most recent recession was different. The NMW protected the lowest paid such that the lowest paid had greater wage increases than those elsewhere in the distribution. Prior to the introduction of the NMW, the only period when those at the bottom did relatively better was between 1975 and 1979, when an incomes policy was in effect.

Table 1.4: Wage Growth for Those Aged 22 and Over, by Selected Percentiles, UK, 1975-2015

Annualised wage growth (%)	Mean	5th	10th	25th	Median	70th	90th
1975-2015	6.3	6.2	5.9	5.9	6.1	6.4	6.7
1975-1997	8.8	8.1	8.0	8.3	8.8	9.2	9.7
1997-2015	3.2	3.9	3.4	3.1	3.0	3.0	3.0
1975-1979	13.5	14.3	12.9	13.3	13.4	13.6	13.9
1979-1982	15.5	13.6	13.7	14.3	15.2	16.3	17.1
1982-1989	6.5	5.5	5.7	5.8	6.4	6.8	7.3
1989-1992	8.5	7.5	8.0	8.2	8.3	9.0	9.5
1992-1997	3.2	2.4	2.7	2.8	3.3	3.6	3.7
1997-2006	4.3	5.1	4.4	3.8	3.7	3.9	4.3
2006-2011	3.2	3.3	2.9	2.9	3.0	3.0	2.8
2011-2015	0.9	2.2	1.9	1.6	1.5	1.2	0.6

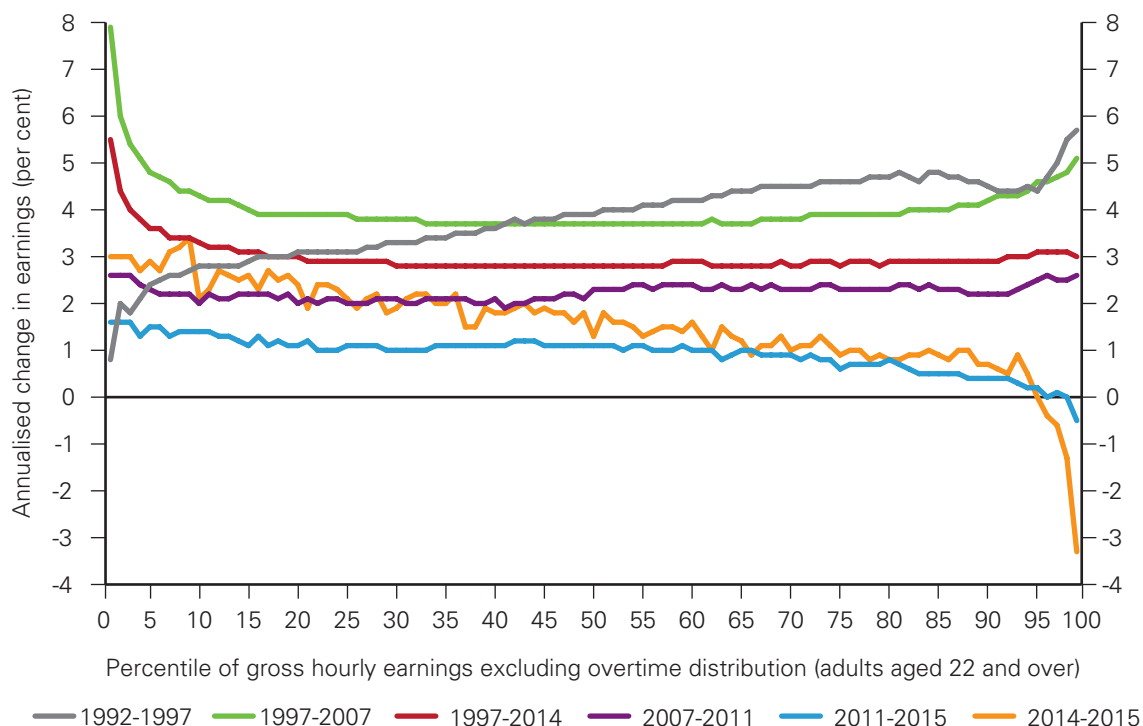
Source: LPC estimates based on New Earnings Survey (NES), April 1975-1997; ASHE excluding supplementary information, April 1997-2004; ASHE including supplementary information, April 2004-2006; April ASHE 2007 methodology, 2006-2011; and April ASHE 2010 methodology, 2011-2015, standard weight, including those not on adult rates of pay and apprentices, UK

Note:

- a. NES and ASHE data adjusted to take account of changes in the earnings series.
- b. Shaded periods contain recessions.
- c. The 5th percentile has included those on the NMW since 1999.

- 1.34** For the period since 1992, we have data for each individual percentile. Figure 1.5 shows that, before the introduction of the minimum wage, those at the lowest end of the hourly earnings distribution had the lowest wage rises. Between 1992 and 1997, those in the bottom decile had increases in line with price inflation (between 1 and 3 per cent a year), whereas those in the upper part of the distribution had higher wage rises (about 4-6 per cent a year). Those in the middle, around the median, received annualised pay rises of about 4 per cent.
- 1.35** Since 1997 that picture has changed. Those at the bottom of the earnings distribution have had much higher increases than those in the middle of the distribution. Between 1997 and 2007, increases for all of the bottom decile were above 4 per cent a year, as were those for the top two deciles. For the rest, pay growth was just below 4 per cent a year. Since 2007, the increases at the bottom have moderated significantly, growing on average by 3-4 per cent a year. However, this remains greater than for the rest of the distribution which has experienced annual average wage growth of less than 3 per cent.

Figure 1.5: Annualised Growth in Hourly Earnings for Employees Aged 22 and Over, by Percentile, UK, 1992-2015



Source: LPC estimates based on New Earnings Survey (NES), April 1992-1997, and ASHE: without supplementary information, April 1997-2004; with supplementary information, April 2004-06; 2007 methodology, April 2006-11; and 2010 methodology April 2011-15, standard weights, including those not on adult rates of pay and apprentices, UK.

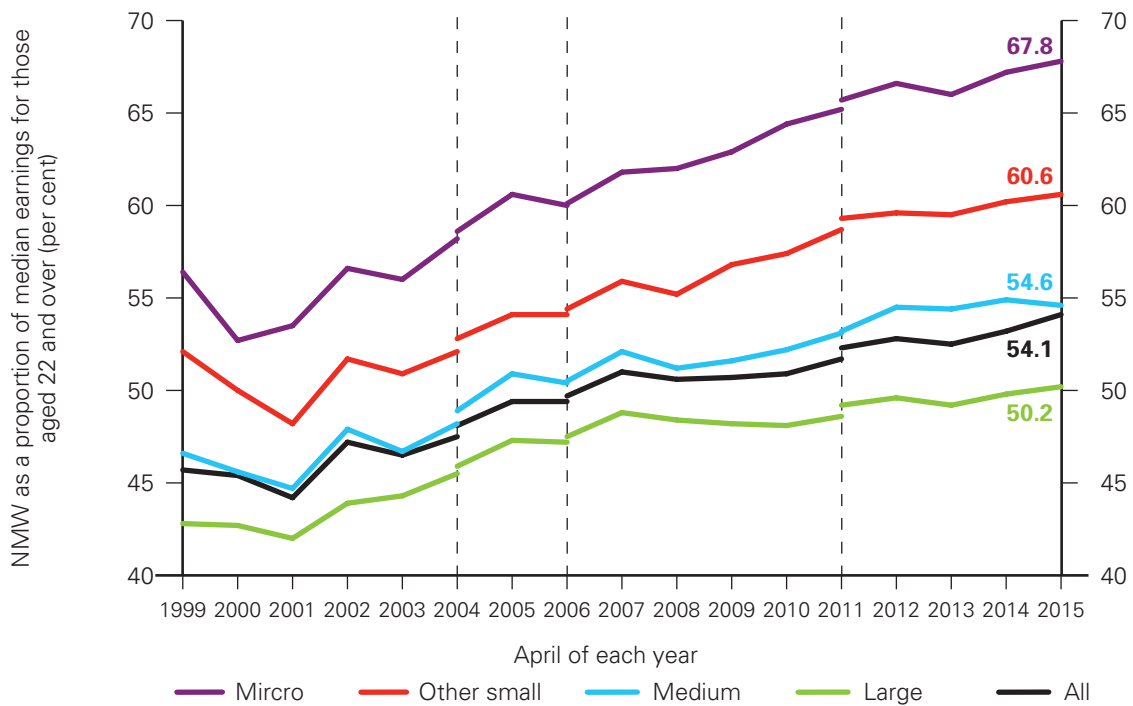
Note: Direct comparisons before and after 1997, before and after 2004, before and after 2006 and before and after 2011, should be made with care due to changes in the data series.

- 1.36** Between 2007 and 2011, earnings growth across the distribution was fairly flat at around 2.0-2.5 per cent a year, with those in the top half of the distribution tending to get slightly higher wage rises than those between the lowest decile and the median. Surprisingly by comparison with previous recessions, where the least well-paid have seen relative wage falls, those in the lowest-paid decile got increases similar to those in the top half over this period.
- 1.37** This broadly progressive pattern has continued since. Over the last four years, wage growth, though low, held up for those at the bottom of the distribution, growing by around 1.5 per cent. By contrast, those in the top half fared badly, with wage growth of 0.0-1.0 per cent. Over the last year, between 2014 and 2015, those in the bottom half again had higher increases in earnings than those in the rest of the earnings distribution. Indeed, those in the bottom quartile had earnings increases of around 2.0-3.0 per cent while those in the top quartile had earnings increases of no more than one per cent. Those in the 95th percentile actually suffered falls in nominal wages.

Size of Firm

1.38 In previous reports (for example, our 2015 Report), we have shown that the bite and coverage of the National Minimum Wage are inversely correlated with the size of firm – that is, the bite and coverage are highest in micro firms (those employing fewer than 10 employees) and lowest in large firms (those employing 250 employees or more). We also reported that the bite and coverage had increased across all sizes of firm in recent years, especially for smaller firms, as increases in the NMW outstripped increases in other workers’ wages. Figure 1.6 shows that generally this trend continued in 2015. The bite at the median for micro firms reached a new high, 67.8 per cent in 2015, up from 67.2 per cent in 2014. The bite for these firms has increased faster than for other size firms, rising from 52.7 per cent in 2000 to that high in 2015. By contrast, the bite for medium-sized firms (those with 50-249 employees) fell slightly from 54.9 per cent in 2014 to 54.6 per cent in 2015, although this level was still higher than in 2013, when the bite had reached 54.4 per cent following gradual increases since 2001 when it was 44.7 per cent.

Figure 1.6: Bite of the National Minimum Wage at the Median for Those Aged 22 and Over, by Size of Firm, UK, 1999-2015



Source: LPC estimates based on ASHE: without supplementary information, April 1997-2004; with supplementary information, April 2004-06; 2007 methodology, April 2006-11; and 2010 methodology April 2011-15, standard weights, including those not on adult rates of pay, UK.

Note: Direct comparisons before and after 2004, before and after 2006 and before and after 2011, should be made with care due to changes in the data series.

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- 1.39** Only large firms have lower bite than the average – micro, other small (those with 10-49 employees) and medium-sized firms all have higher bites. The bite for large firms is much lower than for other sized firms but has also increased since 2001, when it was 42.0 per cent. It went above 50 per cent for the first time in 2015, reaching 50.2 per cent.
- 1.40** Coverage also varies by size of firm. Table 1.5 shows that, overall, about 4.9 per cent of employees were paid at or below the NMW of £6.50 an hour in April 2015, unchanged on April 2014. However, the proportions paid at or below the NMW were higher in small firms than large ones. Around 13.0 per cent of employees in micro firms, and 7.4 per cent in other small firms were paid at or below the NMW, compared with 5.2 per cent in medium-sized firms and just 3.3 per cent of employees in large firms.
- 1.41** Compared with 2014, coverage of the minimum wage increased for micro and other small firms in 2015, whereas it fell in medium-sized and large firms.

Table 1.5: Proportion of Jobs Held by Those Aged 21 and Over, Paid At and Below the Adult Rate of the National Minimum Wage, by Firm Size, UK, 2014-2015

Per cent	April 2014					April 2015				
	Paid < NMW (£6.31)	Paid at NMW (£6.31) ^a	Paid < £6.50	Paid < £7.00	Paid < £7.50	Paid < NMW (£6.50)	Paid at NMW (£6.50) ^a	Paid < £6.70	Paid < £7.00	Paid < £7.50
Micro	2.6	9.0	14.0	21.9	29.0	2.5	10.5	15.5	19.5	27.1
Other small	1.1	6.0	9.0	15.4	22.0	1.0	6.3	9.2	12.7	19.6
Medium	0.6	4.7	6.9	12.6	18.5	0.6	4.7	6.7	9.9	16.1
Large	0.6	3.0	5.2	10.7	15.7	0.5	2.8	5.0	8.0	13.6
Whole economy	0.8	4.1	6.5	12.3	17.8	0.7	4.2	6.7	9.9	15.9

Source: LPC estimates based on ASHE, 2010 methodology, low-pay weights, including those not on adult rates of pay and apprentices, UK, April 2014-15.

Note: a. Based on a five pence band.

Low-paying Sectors

- 1.42** In previous reports, we have identified industries and occupations that have large numbers or high proportions of jobs that are paid at or around the National Minimum Wage. In the analysis that follows, we show that the bite of the NMW at the median also varies by industry. Although not shown, analysis using occupations produces similar findings. As shown in Table 1.6, for the low-paying industry sectors as a whole the bite has increased from 67.5 per cent in 1999, when the NMW was introduced, to 80.2 per cent in 2015 – its highest ever level and the first time that it has gone above 80 per cent. In the rest of the economy, it increased from 42.2 per cent in 2001 to 47.0 per cent in 2015, also a peak. Among the low-paying industries the bite in 2015 ranged from around 70 per cent in employment agencies (70.4 per cent); to around 80 per cent in social care (79.5 per cent) and retail (79.1 per cent); rising to around 85 per cent and over in childcare (84.8 per cent), hairdressing (86.7 per cent), and hospitality (87.7 per cent); and reaching its highest level in cleaning (92.5 per cent).

Table 1.6: Bite of the National Minimum Wage for Workers Aged 22 and Over, by Low-paying Industry, UK, 1999-2015

Sector	1999	2008	2012	2013	2014	2015	Highest bite	
Cleaning	81.9	90.1	93.5	92.5	92.7	92.5	93.5	2012
Hospitality	78.6	85.3	86.9	88.1	87.7	87.7	88.1	2013
Hairdressing	83.5	80.4	85.8	84.4	85.1	86.7	86.7	2015
Childcare	-	69.6	82.8	84.2	83.7	84.8	84.8	2015
Retail	69.5	76.7	79.5	78.1	79.4	79.1	79.5	2012
Social care	60.8	72.2	76.8	78.4	78.7	79.5	79.5	2015
Agriculture	67.5	71.7	75.1	71.8	72.1	73.2	75.1	2012
Textiles	62.1	69.9	71.7	71.0	71.0	73.0	73.0	2015
Leisure	59.3	66.8	69.5	70.8	71.1	72.1	72.1	2015
Employment agencies	-	67.7	68.0	68.1	71.5	70.4	71.5	2014
Food processing	55.6	65.2	70.4	68.4	70.0	72.2	72.2	2015
Low-paying sectors	67.5	75.5	79.4	78.9	79.6	80.2	80.2	2015
Non low-paying sectors	42.2	45.6	46.0	45.9	46.2	47.0	47.0	2015
All	47.1	51.2	52.8	52.5	53.2	54.1	54.1	2015

Source: LPC estimates based on ASHE: without supplementary information, April 1997-2003; with supplementary information, April 2004-05; 2007 methodology, April 2006-10; and 2010 methodology April 2011-15, standard weights, including those not on adult rates of pay and apprentices, UK.

Notes:

- Definitions for the low-paying industries are based on Standard Industrial Classification (SIC) codes. Data from 1999 are based on SIC 2003 codes. Data from 2008-15 are based on SIC 2007 codes. Because of this change in methodology direct comparisons before and after 2007 should be made with care.
- Data on childcare and employment agencies industries were not available before 2008.
- Earnings data have been adjusted to account for the discontinuities in the ASHE data.

1.43 Despite the bite being at its highest in April 2015 for the economy and the low-paying sectors as a whole, it was only at its sectoral peak in six of the eleven low-paying sectors – hairdressing; childcare; social care; leisure, sport and travel; manufacturing of textiles; and food processing. For most other low-paying industries, the bite was slightly higher in previous years.

1.44 Coverage also varies by low-paying sector. Table 1.7 shows marked differences in the proportion of jobs paid at or below the existing NMW and those paid below the then forthcoming NMW by low-paying sector. While about 4.9 per cent of employees were paid at or below the NMW of £6.50 an hour in April 2015, coverage was higher in the low-paying industries (13.9 per cent), ranging from 7.0 per cent in office work and food processing (7.2 per cent) to around a third in cleaning (31.5 per cent). It was also particularly high in hairdressing (26.4 per cent) and hospitality (26.3 per cent).

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Table 1.7: Proportion of Jobs Held by Those Aged 21 and Over, Paid At and Below the Adult Rate of the National Minimum Wage, by Sector, UK, 2014-15

Per cent	April 2014					April 2015				
	Industry/ Occupation/ Size of firm	Paid < NMW (£6.31)	Paid at NMW (£6.31) ^a	Paid < £6.50	Paid < £7.00	Paid < £7.50	Paid < NMW (£6.50)	Paid at NMW (£6.50) ^a	Paid < £6.70	Paid < £7.00
Agriculture	1.4	8.1	11.3	18.1	30.6	0.9	7.5	11.2	14.8	25.7
Food processing	0.5	6.4	10.1	21.0	30.9	0.4	6.8	10.5	17.6	29.8
Textiles	0.5	9.2	13.1	25.6	34.3	0.7	13.7	16.6	23.6	33.7
Retail	1.3	8.3	13.5	31.7	44.6	1.5	8.4	14.7	23.4	39.7
Hospitality	2.3	23.5	31.1	46.2	57.5	2.3	24.0	31.6	40.0	53.1
Cleaning	2.1	30.1	37.7	53.9	64.0	2.1	29.4	36.3	45.3	59.1
Social care	0.9	8.2	14.9	28.9	40.5	0.8	7.7	14.3	23.9	37.4
Childcare	3.1	10.2	20.2	38.4	50.8	2.8	9.8	19.6	29.5	47.1
Leisure	0.8	9.0	14.1	23.5	30.9	1.3	8.2	14.6	20.1	28.8
Hairdressing	4.6	20.0	28.3	40.4	53.8	3.0	23.5	29.0	35.9	50.9
Employment agencies	1.1	14.8	18.3	26.8	35.0	0.5	14.6	17.9	21.9	30.0
Office Work ^b	1.2	5.6	9.2	18.6	29.4	1.0	6.0	9.2	14.3	24.3
Non-food Processing ^b	0.7	7.1	10.2	20.1	31.0	0.5	8.7	11.4	15.7	25.3
Storage ^b	1.1	10.3	14.1	25.1	36.2	1.0	9.4	13.6	19.6	31.7
Transport ^b	1.7	7.4	11.6	20.7	29.8	1.7	7.5	11.2	16.1	25.8
All low-paying industries	1.4	12.4	18.2	33.1	44.5	1.4	12.5	18.7	26.6	40.4
Micro	2.6	9.0	14.0	21.9	29.0	2.5	10.5	15.5	19.5	27.1
Other small	1.1	6.0	9.0	15.4	22.0	1.0	6.3	9.2	12.7	19.6
Medium	0.6	4.7	6.9	12.6	18.5	0.6	4.7	6.7	9.9	16.1
Large	0.6	3.0	5.2	10.7	15.7	0.5	2.8	5.0	8.0	13.6
Whole economy	0.8	4.1	6.5	12.3	17.8	0.7	4.2	6.7	9.9	15.9

Source: LPC estimates based on ASHE, 2010 methodology, low-pay weights, including those not on adult rates of pay and apprentices, UK, April 2014-15.

Notes:

a. Based on a five pence band.

b. Office work, non-food processing, storage and transport are defined using Standard Occupational Classifications (SOC) 2010. The other sectors are based on Standard Industrial Classifications (SIC) 2007.

Research on Earnings and Pay

1.45 Many research studies have investigated how the National Minimum Wage has affected earnings; pay settlements; pay structures; and household and family incomes. They have included both quantitative and qualitative research. We now provide an overview of that research.

1.46 In a descriptive analysis, Butcher (2005) showed that there was a change in the relative pay of the lowest paid compared with pay at the median when the minimum wage was introduced and that the relative improvement had continued with subsequent upratings in

the NMW. However, the impact on differentials appeared weak and did not reach far up the earnings distribution. This analysis has been updated regularly in our annual reports with similar findings (for example, Figure 1.5 and the discussion in paragraphs 1.34-1.37). This issue of the impact of the NMW on the wages of those paid just above the minimum wage, known in the literature as spill-over effects, has been investigated using more sophisticated econometric techniques.

- 1.47** Covering the period up to 2007, Stewart (2009) explored various methodologies to assess the impact of the NMW on differentials and concluded that spill-over effects were generally small and limited, typically reaching no further up the earnings distribution than the fifth percentile. Extending that to 2009, Dolton, Rosazza Bondibene and Wadsworth (2012) found evidence that the minimum wage had squeezed differentials at the bottom of the earnings distribution. Dickens, Riley and Wilkinson (2012), using data from 1994-2010, found that the minimum wage had led to significantly higher wage growth for low-paid workers, particularly when the NMW was introduced. Butcher, Dickens and Manning (2012), in contrast to many previous studies, identified evidence of more significant spill-over effects that reached up to the 25th percentile, about 40 per cent above the NMW. These spill-over effects were larger in low-paying sectors and regions.
- 1.48** Using individual earnings data, Swaffield (2009), Dolton, Lin, Makepeace and Tremayne (2011) and Dickens, Riley and Wilkinson (2012) all found that that when minimum wage increases were lower than average earnings, there had been some restoration of wage differentials. This was consistent with earlier analysis of pay settlements that was summarised in IDS (2011a).
- 1.49** In research commissioned for this report, London Economics (2016) set out to investigate the impact of the NMW on earnings in more detail. It examined the impact of the minimum wage on hourly earnings, the bite and wage differentials; investigated whether the impact of the NMW on earnings varies according to sector, size of firm, and age; and assessed the extent to which the NMW had become established as the 'going rate'.
- 1.50** Reflecting the findings published in our previous reports, it found the bite had increased across the economy, although the rate of increase had slowed during the recession and subsequent recovery. The bite was greatest among small firms, resulting in an increasing prevalence of minimum wage jobs in those firms. Young people had also become more likely to be employed in small firms since the onset of recession in 2008 but the use of the adult rate for young people had declined. They had become more likely to be paid at lower rates (between the youth rates and the adult rate). This suggested that employers may be sensitive to changes in the wages of young people.
- 1.51** Extending the work of Dickens, Riley and Wilkinson (2012), to focus on the effects of the NMW on earnings during and after the recession, London Ecomics (2016) used the Annual Survey of Hours and Earnings to compare the wages of those in minimum wage jobs with those workers paid just above the NMW. It found that NMW workers had real wage increases of around 2-3 per cent more than those paid just above the NMW but that the recession had dampened this effect. The dampening effect of the recession was greater on small firms than on large firms but was not evident in the low-paying sectors.

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- 1.52** As well as the clear evidence that the National Minimum Wage has affected the earnings of the lowest-paid workers in the UK, there is also evidence that the NMW has played an influential role in setting the pay of non-NMW workers, although other factors are also important. Although it was considered less important than financial performance (affordability) and changes to the cost of living, Bryson and Lucchino (2014) found that the National Minimum Wage influenced pay-setting, particularly where trade unions played no role. IDS (2011a) showed that while pay settlements in the low-paying sectors had generally followed similar trends to those in the whole economy before the recession, there was a noticeable difference during the recession: there had been considerably fewer freezes in the low-paying sectors. Minimum wage increases gave little scope for employers to freeze pay at the bottom of the pay distribution.
- 1.53** There is also clear evidence that the NMW has affected the timing of pay reviews. A series of commissioned research reports for the Commission, most notably IDS (2011a and 2014), have showed that October had become a more common pay settlement date in the low-paying sectors. In 1999 fewer than 5 per cent of pay settlements across the economy and in the low-paying sectors were in October. By 2013, October pay settlements had remained similar for the whole economy, around 5 per cent, but had increased to over 20 per cent in low-paying sectors.
- 1.54** Several research studies, including Carroll and Grimshaw (2002); Cronin and Thewlis (2004); Denvir and Loukas (2006); and IDS (2011a) have investigated how firms have attempted to cope with the minimum wage through their pay structures. They have found similar effects suggesting firms have partly funded NMW increases by squeezing earnings elsewhere. For example: pay structures had been changed with the number of hierarchies or geographic pay zones reduced; pay differentials had narrowed; pay premia had reduced for overtime and unsocial hours; and non-wage benefits such as subsidised meals and transport, annual leave, pensions, and staff discounts, had been restricted. IDS (2014) found that low-paid employees continued to receive premium payments for working unsocial hours, although it monitored a trend away from paying premiums on Sunday and reducing premiums for bank holidays. In contrast, using an econometric methodology, Gregg and Papps (2014) found no statistically significant evidence that the minimum wage had affected workers' levels of: incentive pay; shift pay; overtime pay; or pension eligibility.
- 1.55** It has been argued that the minimum wage is not particularly well-targeted at the lowest income households. Indeed, NMW workers tend to be in the third to sixth deciles of the household income distribution but those households in the lowest deciles tend to have few workers, as they are comprised mainly of pensioners and those on out-of-work benefits. IFS (2003), Bryan and Taylor (2004 and 2006), and Brewer, May and Phillips (2009) among others, showed that if the sample was restricted to working households, removing pensioner and workless households, then NMW workers were concentrated in the bottom two deciles. Brewer and De Agostini (2013) found a similar picture when analysing family income distributions. The families for whom the NMW was the main source of income were concentrated in the bottom two deciles of the income distribution for working families. Bushe, Kenway, MacInnes, Tinson and Withers (2015) also found that minimum wage

workers tended to be towards the bottom of the household income distribution, although around a quarter were in the top two quintiles.

- 1.56** Brewer, May and Phillips (2009), Brewer and De Agostini (2013), and Bushe, Kenway, MacInnes, Tinson and Withers (2015) have all investigated the interaction of the minimum wage with the tax and benefit system. They all generally concluded that low-paid workers claiming benefits and tax credits received only modest increases in overall income when the NMW rose under the current benefit system. However, the most recent study concluded that Universal Credit should generally improve the situation for low-paid workers, although there remained some concerns about its effect on particular groups and for particular hours worked. This research did not take account of the recent changes announced by the Chancellor in his Autumn Statement, which will make Universal Credit less generous than the original plans.

Views on Earnings and Pay

- 1.57** Since the introduction of the NMW we have sought stakeholder views on its impact. In particular on earnings and pay; on employment and hours; and on competitiveness. While this year, we again received stakeholder views on the impact of the minimum wage, it was largely in relation to the future likely impact of the NLW rather than the past and current impact of the existing NMW.
- 1.58** While a lesser volume of stakeholder evidence on a particular matter should not automatically be interpreted as meaning that this is less of an issue, it was our overall sense that the message from employer stakeholders was the existing level of the NMW and recent upratings had been manageable; although this story did of course vary by sector and individual organisations. Most employer representatives saw a more substantial challenge arising from the NLW than the existing NMW – and that evidence is presented in Chapter 2.

Impact on Earnings and Pay

- 1.59** In general those representing business and providing evidence on the impact of the NMW have historically reported a cumulative adverse impact on pay structures from increases in the NMW, particularly on differentials and the ability to afford pay increases for non-minimum wage staff. In contrast, those representing workers have argued that, in their opinion, the NMW had not had a negative impact on pay structures or differentials and consequently the Commission could afford to be more ambitious with its future NMW recommendations.
- 1.60** The CBI told us that weak productivity growth and low inflation had affected the capacity of businesses to raise wages and these constraints would make the October 2015 NMW increase ‘just about achievable’. It added that, where differentials are compressed, there will be less incentive for people to progress up the career ladder.
- 1.61** Employers in retail, the largest of the low-paying sectors, broadly agreed. The British Retail Consortium (BRC) said its annual survey found that for the first time since the BRC began submitting evidence to the Low Pay Commission, the cost pressure imposed by the rise in the adult statutory minimum had narrowed the differential between the sample’s median wage rate and the adult rate of the NMW, from 88 pence last year to 71 pence this year.

National Minimum Wage

The median wage of all employees in its survey sample was £7.21, just 2 pence higher than reported the previous year.

- 1.62** The Association of Convenience Stores (ACS) also reported that the NMW had affected small retailers, citing evidence from its 2015 NLW Survey which found that the average wage paid by these retailers to their staff was £6.65 an hour, 15 pence higher than the then current National Minimum Wage. The ACS reported that between 2013 and 2015, average pay in the sector increased by 15 pence, despite seeing a 31 pence increase in the National Minimum Wage over this period, suggesting that an increasingly large proportion of staff were employed on the NMW.
- 1.63** Among those representing small employers more generally, the firm size most exposed to changes in the minimum wage, the Federation of Small Businesses (FSB) told us of members responding to its survey, 26 per cent said the latest uprating of the NMW would have a 'negative' impact. This was higher than the previous year (when 16 per cent said the NMW would have a negative impact). The FSB explained that there could be various reasons for this rise, including that higher recent NMW upratings may have increased NMW coverage or that businesses may be 'pricing in' the impact of the NLW in their considerations as to the affordability of the October 2015 rate rises. Of those respondents that cited a negative impact, 26 per cent said that they would respond to the 2015 NMW increase by freezing or lowering the pay of higher-paid staff (that is, reducing differentials).
- 1.64** In hospitality, the British Hospitality Association (BHA) thought that the October 2015 increases were largely seen as both 'affordable' and 'reasonable', but expressed concern about the impact of the NLW. The Association of Licensed Multiple Retailers (ALMR) said that the NMW has had a dramatic impact in the licensed hospitality industry since its introduction, rapidly becoming the standard rate of pay.
- 1.65** We heard detailed evidence from employers about the impact of the NMW on staff pay during our various visits around the UK. A hospitality sector employer we met in Belfast in September 2015 told us that it currently pays 20 pence above the adult rate of the NMW to attract staff, but the NLW increase would see it phase out this practice. The employer added that the increase would also affect differentials. Another hospitality representative we met, this time during our visit to the South West of England, said that he had noticed a recent move towards formerly better-paid staff receiving the NMW, adding that pushing the NMW upwards too quickly would affect reward for supervisory staff.
- 1.66** In agriculture, the National Farmers' Union (NFU) commented that, following the abolition of the Agricultural Wages Board in England and Wales in 2013, the industry has continued to adjust to the NMW framework. The NFU considered the annual NMW upratings a useful indicator for wage negotiations and added that, with the exception of Grade 1 workers who were paid just above the adult rate of the NMW, minimum rates of pay for other agricultural workers were well in excess of the adult rate of the NMW.
- 1.67** In textiles and clothing, the UK Fashion and Textiles Association (UKFT) commented that the NMW increase in 2015 had created a further squeeze on differentials. The UKFT also highlighted the issue of making-up pay, where those who are being paid by output produced (piece work) and who are earning less than the minimum wage, have their pay made-up to

the NMW by the employer. The UKFT said that many skilled machinists were already having their wages made-up to the NMW of £6.70.

- 1.68** In social care, the United Kingdom Home Care Association (UKHCA) advised that the NMW has evolved into a significant operational issue. There were continuous pressures from local authorities for providers to reduce costs and make efficiencies, while statutory obligations were often unfunded (e.g. payment of travel time). There was also an impact from NMW increases reducing pay differentials.
- 1.69** The Registered Nursing Home Association (RNHA) said the independent adult social care sector was ‘between a rock and a hard place’ over the wages paid to its staff. On the one hand the local authorities, who purchase 60 per cent of all residential care, had not generally increased the amount they pay to care providers over the past five years while the National Minimum Wage has increased each year.
- 1.70** In childcare, a sector with similarities to social care to the extent that it relies heavily on government funding, the National Day Nurseries Association (NDNA), said that due to funding constraints many nurseries were forced to pay unqualified staff at or around the NMW. Furthermore, the NMW had reduced the discretion of firms to set their own pay structures to reward performance and achievement of qualifications. The NDNA added that increases in wages further squeezed nurseries’ margins.
- 1.71** Evidence from some employer bodies suggested recent increases in the NMW were affordable and could be accommodated by business. For example, EEF – the manufacturers’ organisation – supported the 2015 NMW increases as it considered they balanced protecting the low paid while not affecting job growth.
- 1.72** Trade unions told us that there had so far been little evidence that the NMW had adversely affected pay structures or differentials. For example, Unite said that it had not noticed a detrimental impact on pay structures or differentials. In oral evidence the TUC said it that it did not agree that a higher pay floor necessarily meant wage compression. It cited the example of Makro, which has sustained differentials. The TUC also pointed out that supervisory roles in low-paying industries had increased in number.
- 1.73** The Union of Shop, Distributive and Allied Workers (Usdaw) added that that the cost of living for low-paid workers should be taken into account as well as the affordability for businesses. Usdaw’s Cost of Living Survey found 80 per cent of members surveyed felt financially worse off than they were five years ago. It stressed that low-paid workers were struggling to afford basic essentials, adding that for the vast majority of its members the low headline rates of inflation did not reflect the true cost of living.

Summary on Earnings and Pay

- 1.74** In summary, the adult rate of the NMW in October 2015 was over 86 per cent higher than when it was introduced in April 1999 at £3.60 an hour. This increase was greater than the increase in average earnings or prices over the same period. However, with the economy in recession and recovering slowly, the real value of the NMW had fallen since 2007 as increases in both CPI and RPI inflation had been greater than the increases in the NMW.

National Minimum Wage

Between October 2007 and October 2013, the real value of the NMW, deflated by CPI in 2015 prices, fell by 5.2 per cent. However, the recent 3 per cent increases in the NMW in October 2014 and 2015 have restored much of that lost value.

- 1.75** In contrast, the value of the NMW relative to average earnings had never been higher than it was in October 2015. As a consequence, the bite of the NMW (its value relative to the median) – broadly stable in the economy as a whole between 2007 and 2010 – is now at its highest level since the NMW was introduced. It is also at its highest across most sizes of firm, particularly for micro and small firms, and in the low-paying sectors as a whole.

Impact on Employment and Hours

- 1.76** Having established that the minimum wage has had a significant effect on the bottom of the earnings distribution, we now turn to see how firms have coped with the higher wage costs that have resulted from the introduction and subsequent increases in the NMW. In the face of these increased wage costs, employers can look to offset these costs by reducing other aspects of labour costs (for example, giving less generous benefits and perks to their workforces and giving smaller pay rises to higher-paid workers). Indeed, previous reports and the previous section provided evidence that employers had changed their pay structures and cut other aspects of the remuneration. Alternatively, firms can cope with increased labour costs by changing the amount of labour used (adjusting the number of workers employed or the number of hours worked); increasing prices (passing higher costs on to customers, perhaps by reducing quality or quantity); absorbing the costs through reduced profits; or seeking to increase productivity through various means (including increased investment in capital; workforce training; inducing greater effort; and reorganising work). The magnitude of these adjustments will determine the extent of adverse impacts from increases to the minimum wage. The remainder of this chapter focuses on these adjustments to assess how firms and workers have coped with minimum wage increases. We start by considering the impact on employment and jobs.

- 1.77** In assessing employment, we consider two main official data sources: the Labour Force Survey (LFS) and the ONS Workforce Jobs series (WFJ). The LFS samples households and estimates employment by counting the number of people in employment. On the other hand, the WFJ series surveys businesses and counts the number of jobs in the economy. It includes employee jobs, HM Armed Forces, the self-employed and government-supported training schemes. These employment counts differ as they are derived from different samples and a person can have more than one or two jobs (official statistics would count a job share as two jobs).¹ Further, due to the sampling frame, the LFS is less likely to pick up jobs performed by migrant workers who have been in the UK for less than a year. ONS (2015) gives a more detailed explanation of the differences between the two data sources.

¹ In the Labour Force Survey, an individual can have up to two jobs – a main job and a second job – but no more. In the Workforce Jobs Series, all jobs are counted.

1.78 For our assessment of the impact of the NMW on the labour market, we look at employment, the number of jobs, hours worked, vacancies and redundancies. As well as looking at these at an aggregate whole economy level, we also investigate labour market outcomes at a more disaggregated level, where impacts of the minimum wage might be more evident, such as in small firms, in low-paying sectors, and among those groups of workers who are the lowest paid.

Employment and Employee Jobs

1.79 We first assess the impact on employment and jobs by looking at labour market data for the whole economy. The UK economy has proved successful in creating a large number of jobs since the introduction of the National Minimum Wage. Between March 1999 and September 2015, as shown in Table 1.8, the number of workforce jobs, including the self-employed, has increased by 4.6 million or 15.8 per cent, and the number of employee jobs by 3.6 million or 14.1 per cent. That is annual growth of around 1.0 per cent a year, despite the loss of 843,000 workforce jobs (2.6 per cent) and 1.01 million employee jobs (3.6 per cent) during the recession.

1.80 The growth in the number of people in employment has been similar to that of jobs over the same period. Between March 1999 and September 2015, the number of people in employment increased by 15.4 per cent or 4.2 million. The growth in the number of employees was slightly weaker at 12.7 per cent or 3.0 million. Again these increases occurred despite a fall of 709,000 people in work (2.4 per cent) and 797,000 employees (3.1 per cent) during the downturn and its aftermath.

1.81 Since the introduction of the NMW, the growth in hours (around 12.0 per cent) has not been as strong as the growth in the number of employee jobs (14.1 per cent) or the number of employees (12.7 per cent). However, the growth in hours was stronger than the growth in employment or jobs between September 2010 and September 2015, with especially strong growth in hours to September 2014.

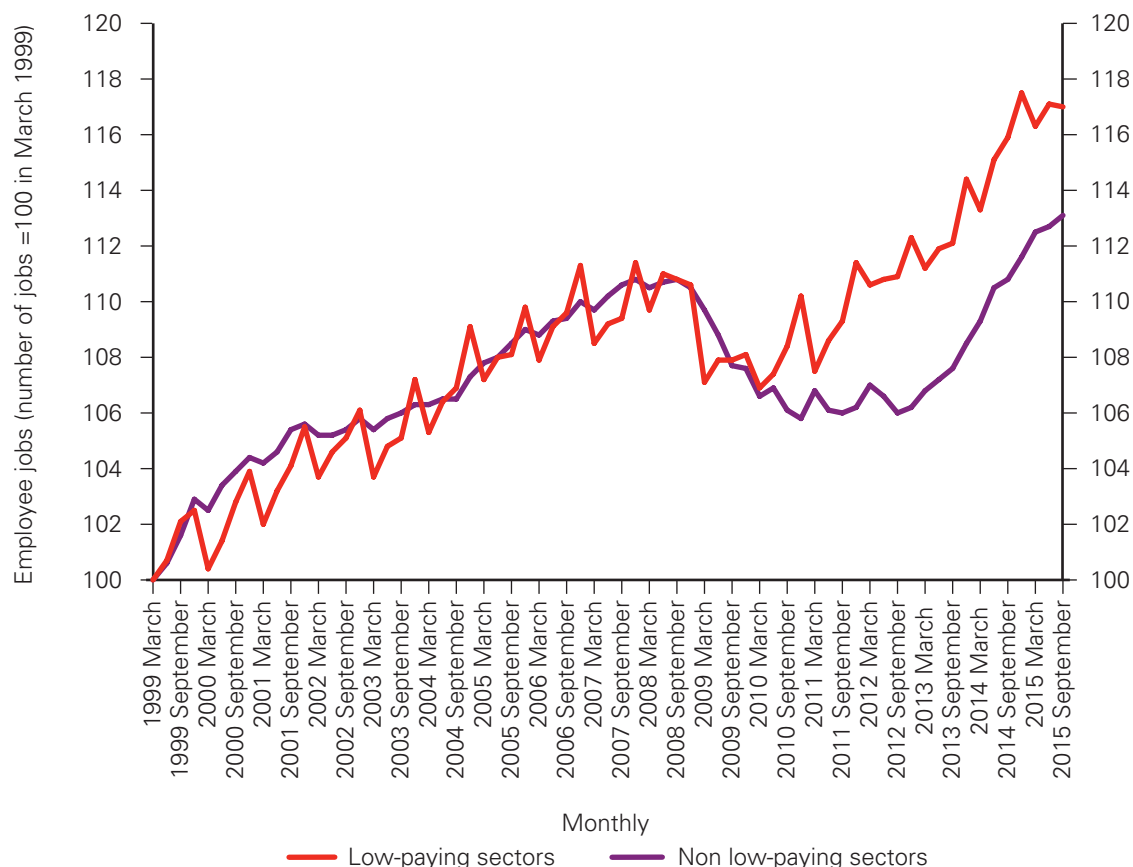
National Minimum Wage

Table 1.8: Change in Employment, Jobs and Hours, UK, 1999-2015

		Workforce jobs	Employee jobs	Employment	Employees	Hours worked (Millions)
Mar 1999-Sept 2015	000s	4,616	3,587	4,175	2,989	106.9
	%	15.8	14.1	15.4	12.7	12.0
Sept 2014-Sept 2015	000s	415	486	418	435	7.3
	%	1.2	1.7	1.4	1.7	0.7
Sept 2013-Sept 2014	000s	1,101	863	695	455	21.7
	%	3.4	3.1	2.3	1.8	2.2
Sept 2012-Sept 2013	000s	406	378	345	324	16.9
	%	1.3	1.4	1.2	1.3	1.8
Sept 2011-Sept 2012	000s	217	130	476	281	22.6
	%	0.7	0.5	1.6	1.1	2.4
Sept 2010-Sept 2011	000s	257	43	-108	-139	-0.2
	%	0.8	0.2	-0.4	-0.6	0.0
Sept 2009-Sept 2010	000s	-130	-227	316	104	11.7
	%	-0.4	-0.8	1.1	0.4	1.3
Sept 2008-Sept 2009	000s	-677	-775	-511	-564	-30
	%	-2.1	-2.7	-1.7	-2.2	-3.2
Sept 2007-Sept 2008	000s	107	137	160	186	2.1
	%	0.3	0.5	0.5	0.7	0.2
Sept 2006-Sept 2007	000s	258	209	237	169	11.3
	%	0.8	0.7	0.8	0.7	1.2
Sept 2005-Sept 2006	000s	392	282	255	145	2.3
	%	1.2	1.0	0.9	0.6	0.2
Sept 2004-Sept 2005	000s	475	439	410	352	17.6
	%	1.5	1.6	1.4	1.4	1.9
Sept 2003-Sept 2004	000s	184	250	262	323	3.6
	%	0.6	0.9	0.9	1.3	0.4
Sept 2002-Sept 2003	000s	369	116	321	5	4.4
	%	1.2	0.4	1.1	0.0	0.5
Sept 2001-Sept 2002	000s	189	101	220	205	-1
	%	0.6	0.4	0.8	0.8	-0.1
Sept 2000-Sept 2001	000s	351	376	160	151	8.9
	%	1.2	1.4	0.6	0.6	1.0
Sept 1999-Sept 2000	000s	380	465	337	371	1.2
	%	1.3	1.8	1.2	1.6	0.1
Sept 1998-Sept 1999	000s	537	542	384	389	7.2
	%	1.9	2.1	1.4	1.7	0.8

Source: LPC estimates based on ONS data: workforce jobs (DYDC) and employee jobs (BCAJ), quarterly; total employment (MGRZ), employees (MGRN) and total weekly hours (YBUS), monthly, seasonally adjusted, UK, 1999-2015.

- 1.82** Given the depth of the recession and the subsequent sluggish growth, the labour market, as we noted in our 2015 Report, has been remarkably resilient. After the previous recessions of the 1980s and 1990s, which had been less severe in terms of loss of output, it had taken around eight years after the onset of recession for employment to return to its pre-recession levels and even longer for hours.
- 1.83** After the recent recession, it took less than five years for both employment and hours to rebound to their pre-recession levels. This strength continued in 2015, albeit with weaker growth than in 2014.
- 1.84** Over the last year, job and employment growth has been broadly solid. In the year to September 2015, the number of workforce jobs increased by 1.2 per cent; the number of employee jobs by 1.7 per cent; the number of people in employment by 1.4 per cent; and the number of employees by 1.7 per cent. These are lower than the increases in employment and jobs observed in 2014, although that marked a year of exceptional growth. The growth in hours also slowed to 0.7 per cent in the year to September 2015 from 2.2 per cent in the year to September 2014. That was also weaker than the 1.7 per cent increase in the number of employees and employee jobs.
- 1.85** As we noted when we discussed the impact of the NMW on earnings, any effect on employment, jobs and hours is most likely to be evident in the low-paying sectors, in small firms and among low-paid workers. The increase in the adult rate of 3.0 per cent in October 2014 from £6.31 to £6.50 an hour would be expected to have most effect on those jobs and workers. The 2014 uprating turned out to be a relative increase, as average wage growth remained subdued, and it was the first real increase in the value of the NMW since the start of the recession as CPI and RPI inflation fell below 3 per cent.
- 1.86** In September 2015, there were around 18.7 million jobs in non low-paying industries, and 9.7 million in low-paying industries. Between 1999 and 2008, as shown in Figure 1.7, low-paying and non low-paying industries each experienced similar rates of job growth of around 11 per cent. Both sectors then experienced sharp falls in jobs during the recession (2008-09) but jobs recovered faster in the low-paying sectors – reaching its previous peak by the end of 2011. In contrast, non low-paying industries didn't recover fully until the end of 2014, as they did not see much jobs growth through 2011 and 2012. In the year to September 2015, job growth had slowed to 1.0 per cent in the low-paying industries, while it had picked up to 2.1 per cent in the rest of the economy.

Figure 1.7: Change in Employee Jobs, by Sector, GB, 1999-2015

Source: LPC estimates based on ONS employee jobs series, every three months, not seasonally adjusted, GB, 1999-2015.

- 1.87** Table 1.9 shows the change in employee jobs by low-paying industries. Over the last year, most sectors have seen an increase in jobs but with notable exceptions in domiciliary care and childcare, and retail. However, excluding the motor trade, retail jobs did not fall, and the increase in residential care jobs outweighs those lost in domiciliary care and childcare. Sectors with encouraging employee growth over the last year include textiles and clothing (9.1 per cent), agriculture (8.9 per cent), hairdressing (8.5 per cent), and residential care (7.5 per cent). However, it should be noted that these industries account for only a small proportion of low-paying jobs overall.
- 1.88** Similarly since the introduction of the NMW (as measured from September 1998), job growth has been greater in the low-paying industries (up 15.7 per cent) than in the rest of the economy (14.4 per cent). Overall, consumer service jobs have increased by 16.0 per cent – in line with job growth for the low-paying industries as a whole. However, that job growth ranges from around 4.1 per cent in retail (including the motor trade) to much stronger growth in hospitality (29.5 per cent), leisure (50.7 per cent) and hairdressing (60.8 per cent). The number of jobs in business services (up 36.3 per cent) and government-funded services (up 39.4 per cent) has grown much faster than in consumer services – with growth of 57.2 per cent in employment agencies, 19.5 per cent in cleaning, 51.0 per cent in residential care and 30.0 per cent in domiciliary care and childcare. In contrast, jobs in the low-paying trade industries have decreased by 34 per cent or 347,000 since September 1998 – with falls of 15 per cent in food processing, 27 per cent in agriculture and 68.5 per cent in textile and clothing manufacture.

Table 1.9: Change in Employee Jobs, by Low-paying Industry, GB, 1998-2015

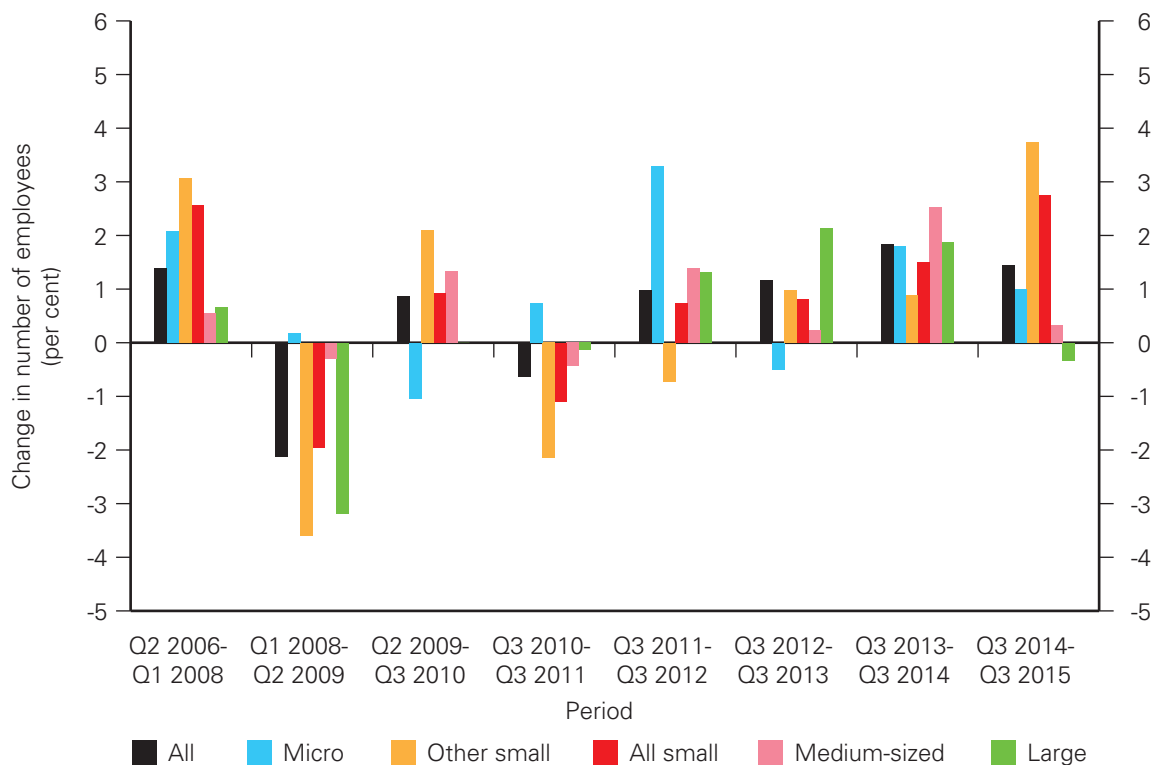
	2015 September	Change on 2014 September		Change on 2008 September		Change on 1998 September	
	000s	000s	%	000s	%	000s	%
All industries	28,366	476	1.7	898	3.3	3,664	14.8
Non low-paying industries	18,716	383	2.1	387	2.1	2,357	14.4
All low-paying industries	9,650	93	1.0	511	5.6	1,307	15.7
Consumer services	5,958	79	1.3	173	3.0	820	16.0
Retail	3,254	-33	-1.0	-76	-2.3	128	4.1
Retail (excluding motor trade)	2,792	2	0.1	-52	-1.8	173	6.6
Hospitality	2,054	81	4.1	204	11.0	468	29.5
Leisure, travel and sport	523	21	4.2	42	8.7	176	50.7
Hairdressing	127	10	8.5	3	2.4	48	60.8
Business-to-business services	1,465	13	0.9	163	12.5	390	36.3
Cleaning	712	11	1.6	77	12.1	116	19.5
Employment agencies	753	2	0.3	86	12.9	274	57.2
Trade	656	44	7.2	11	1.7	-347	-34.6
Food processing	364	20	5.8	24	7.1	-66	-15.3
Agriculture	196	16	8.9	-17	-8.0	-72	-26.9
Textiles and clothing	96	8	9.1	4	4.3	-209	-68.5
Government-funded	1,571	-43	-2.7	164	11.7	444	39.4
Residential care	764	53	7.5	154	25.2	258	51.0
Domiciliary care/childcare	807	-96	-10.6	10	1.3	186	30.0

Source: LPC estimates based on ONS employee jobs series, three-monthly, not seasonally adjusted, GB, 1998-2015.

1.89 However, some low-paying industries have still not recovered fully from the recession. Compared with September 2008, the number of employee jobs in retail including the motor trade, and agriculture were lower in September 2015. Retail including the motor trade lost 76,000 jobs (or 2.3 per cent), while there was a decrease of 17,000 jobs in agriculture (down 8.0 per cent). Conversely, since September 2008 jobs in hospitality have increased by 11 per cent (204,000 jobs), and in residential care by 25 per cent (154,000 jobs). Jobs in business services have also grown strongly (up 163,000 or 12.5 per cent).

1.90 We now look at employment by different sizes of firm. As we noted above, the impact of the minimum wage varies by firm size, with higher bites and greater coverage in small and micro firms than in larger ones. Figure 1.8 shows change in employment by size of firm, broken down into different time intervals since 2006. Prior to the recession, employment grew across firms of all sizes, with the strongest growth among small firms. During the recession, employment fell among firms of all sizes, apart from micro firms which saw a very small increase. Other small firms saw a fall of over 3.5 per cent. The recovery in employment was quite irregular across firms and time periods.

Figure 1.8: Change in Employees, by Firm Size, UK, 2006-2015



Source: LPC estimates based on LFS Microdata, quarterly, not seasonally adjusted, UK, Q2 2006-Q3 2015.

1.91 All firms, apart from micro firms, saw employment growth between the second quarter of 2009 and the third quarter of 2010. However, this trend was reversed in the following period up to the third quarter of 2011, where all sizes of firms saw a decrease in employment, apart from micro firms. From then onwards, the general trend is that employment in all sizes of firm has grown each year, with a few exceptions. The latest data, for the year to the third quarter of 2015, show continued employment growth in small firms with limited growth in medium-sized firms and employment falls in large firms. Growth among small firms of nearly 4 per cent followed a period of more subdued growth of under 1 per cent the previous year. Employment growth in micro firms slowed from nearly 2 per cent to around 1 per cent.

1.92 Another aspect where NMW impacts might be expected to differ is across demographic groups. Table 1.10 shows there is significant variation in employment rates and by changes over time. Looking across the whole period since 1999, the employment rate of women has increased by 3.8 percentage points, compared to a decrease in the male employment rate of 0.2 percentage points. The employment rate of older workers (those aged 65 and over) has increased by 5.3 percentage points, which contrasts with a 1.8 percentage point increase for the working age population, and significant falls for those aged 18-20 (down 11.8 percentage points) and 16-17 (down 23.9 percentage points). This is mainly due to an increase in participation in full-time education.

Table 1.10: Employment Rates, by Group of Workers, UK, 1999-2015

(Rates: per cent; changes: percentage points)	Employment rate			
	2015 Q3	Change on:		
		2014 Q3	2008 Q2	1999 Q1
Working age	73.5	0.9	0.6	1.8
Men	78.3	0.7	-0.7	-0.2
Women	68.7	1.0	1.9	3.8
16-17 year olds	24.1	2.6	-9.8	-23.9
18-20 year olds	49.4	1.7	-7.1	-11.8
Older workers (65+)	10.3	0.3	3.2	5.3
White	75.0	1.1	0.5	2.5
All ethnic minorities	62.2	0.9	1.9	6.2
Black	63.5	3.0	0.2	2.8
Indian	71.3	0.5	2.3	7.6
Pakistani/Bangladeshi	53.0	2.3	7.5	14.7
Other non-white	60.6	-0.2	-0.8	3.7
With qualifications	76.6	0.9	-1.7	-1.8
No qualifications	44.3	0.5	-3.3	-6.5
Not disabled	80.6	1.1	0.0	0.6
Disabled people	42.5	0.3	2.3	4.9
UK born	74.1	0.9	0.5	1.6
Non-UK born	70.6	0.9	2.7	8.3

Source: LPC estimates based on LFS Microdata, quarterly, four-quarter moving average, UK, Q2 1998-Q3 2015.

Note: Working age, unless otherwise stated.

- 1.93** The employment rate of the ethnic minority group as a whole has grown more strongly than the employment rate of the White group, up 6.2 percentage points compared with 2.5 percentage points since 1999. Among those ethnic minority groups, the Pakistani/Bangladeshi group experienced a particularly large increase of 14.7 percentage points. The employment rate of disabled people has increased more than for non-disabled people, a 4.9 percentage point increase compared with a 0.6 percentage point increase. Similarly, the employment rate of non-UK born workers has increased by more than that for UK-born workers (8.3 compared with 1.6 percentage points).
- 1.94** Since the end of the recession, the employment rate of most groups of workers has recovered. The exceptions are the male employment rate, which is still 0.7 percentage points below its pre-recession level, those with no qualifications (3.3 per cent lower), and young people (aged under 21). For those with qualifications, the employment rate is also below its pre-recession rate but that it is due to increased participation in full-time education among the younger age groups.
- 1.95** Over the last year, the employment rate of all reported groups has increased, apart from the Other Non-White group. The increase in the employment rate for disabled people was smaller than for the non-disabled – the disabled employment rate now stands at just over half of the employment rate of non-disabled people.

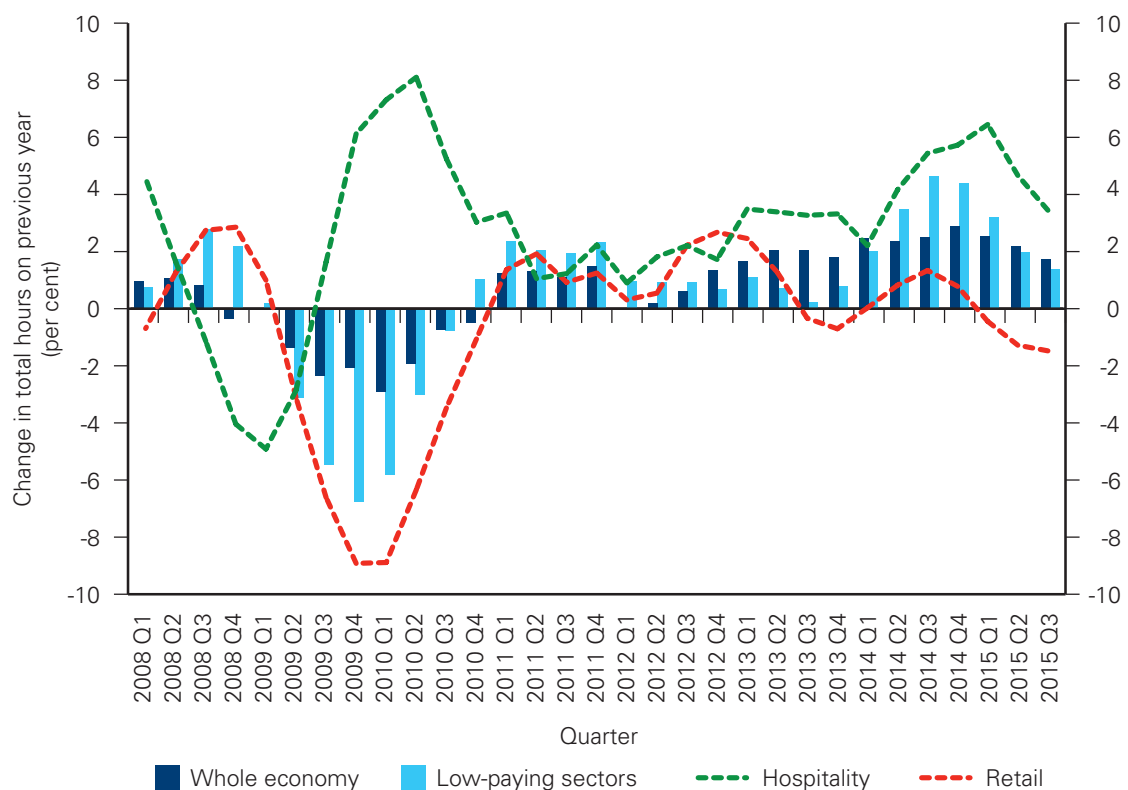
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1.96 Employment rates of 16-17 year olds, 18-20 year olds, and those aged 65 and over have also all increased in the last year, with the improvement for the younger age groups faster than the overall working age population. However, there is a longer-term trend of decreasing employment rates among young people. Across all ethnic minorities, the employment rate has generally increased across all time periods. However, this disguises variation in trends between ethnic minorities.

Hours

1.97 The growth in hours in the whole economy has followed similar trends to the growth in employment. That is, after falling sharply during the recession, there has been growth in every quarter since, if we compare each quarter with that of the same quarter in the previous year. While growth was muted in 2012, when the economy slowed, it has picked up since and, as with employment growth, increases in the number of hours worked were particularly strong in 2014. Though it is still above historic trends, the pace has slowed in 2015. Figure 1.9 shows a similar story for the low-paying sectors, although the increases in hours here were stronger than in the economy as a whole in 2011 and 2014, while a little weaker in 2013. Growth in hours for these sectors has again slowed in 2015.

Figure 1.9: Annual Change in Hours Worked, by Sector, UK, 2008-2015



Source: LPC estimates based on LFS Microdata, quarterly, four-quarter moving average, UK, Q2 2006-Q3 2015.

1.98 Within the low-paying sectors, the two largest sectors – retail and hospitality – have shown divergent trends with growth in hours much stronger in hospitality since the end of the recession than in retail. Over the year to the third quarter of 2015, the growth in hours in hospitality has slowed but remains close to 4 per cent, considerably above the growth

observed for the whole economy – just under 2 per cent. In retail, the growth in hours has been more muted and the number of hours worked has fallen in each of the first three quarters of 2015.

Research on Employment, Hours and Unemployment

- 1.99** The majority of studies that have investigated the impact of the minimum wage in the UK have focused on its effects on employment and hours. Qualitative and quantitative studies have been conducted with different methods and approaches adopted. These have included using: aggregate and sectoral time series data; individual data; the geographic variation in bite and coverage; industry and business data; and case studies. Our previous reports have provided overviews of that research, as did Metcalf (2007) and Butcher (2012).
- 1.100** In general that research finds little effect on employment but there is some evidence that it has led to small reductions in hours. Some studies have also found adverse effects on particular groups, for example part-time female employees, in some time periods under certain model specifications. We now give a summary of those findings, including reporting on research commissioned for this report.
- 1.101** Using time series analysis of industries, Dickens, Machin and Manning (1999) and Dickens and Dolton (2011) found no evidence of a negative impact on employment of the sectoral minimum wages set by the Wage Councils in the UK in the 1980s or 1990s. In contrast, studies that have analysed time series data across countries, such as OECD (1998), and Neumark and Wascher (2004 and 2008) have generally found that minimum wages have a statistically negative impact on employment. However, Dolton and Rosazza Bondibene (2011 and 2012) found no such relationship for all workers and concluded that those previous results were dependent on the specification of the model and definition of the minimum wage. But they did find a consistent and strong negative impact on the employment of young workers.
- 1.102** Using data that follows individuals over time, researchers have assessed the impact of the introduction and subsequent upratings in the minimum wage on employment and unemployment. These studies have also generally found little adverse impact of the minimum wage on employment. For example, Stewart (2001, 2004a and 2004b) investigated the impact of the introduction of the minimum wage; while Dickens and Draca (2005); Dickens, Riley and Wilkinson (2009); Mulheirn (2008); Bryan, Salvatori and Taylor (2012 and 2013) and Dolton, Rosazza Bondibene and Stops (2012) have focused on subsequent upratings. All of these studies found no significant and consistent adverse effects on employment. Where negative employment effects have been found, these have generally been insignificant or not robust. For example, Dickens, Riley and Wilkinson (2012) and Bewley and Wilkinson (2015) found negative effects on the employment of female part-time workers on introduction of the minimum wage and during the recession in some specifications of their econometric modelling.
- 1.103** Recent studies in the US and Canada had found that increases in the minimum wage reduced both flows in and out of employment. Dube, Lester and Reich (2014), in a study of teenagers and restaurant workers, found a sizable negative impact on flows (separations, hires and turnover rates) but not on stocks (the level of employment). Brochu and Green

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(2011) and 2013 using Canadian data from 1979-2008 also investigated flows looking at quits, lay-offs and hiring rates. They found that higher minimum wages are associated with lower hiring rates but also lower separation rates. As these effects offset each other for older workers, they resulted in little impact on the employment rate.

- 1.104** Using UK data, recent research by Bewley and Wilkinson (2015) found a lower rate of employment retention for male full-time employees in the years from 2010 onwards. That was also consistent with the negative employment effects for this group found in some specifications by Dickens, Riley and Wilkinson (2012) and Gregg and Papps (2014), although the latter analysis found no evidence of the NMW having any impact on employment retention when using a different data source, casting some doubt on the robustness of those negative effects.
- 1.105** Building on these studies, Dickson and Papps (2016) used UK data to investigate how the NMW had affected flows in and out of employment. They found evidence that increases in the minimum wage had reduced the likelihood of workers changing jobs and that minimum wage increases had reduced the likelihood of unemployed workers entering employment. When examining changes in hiring and separation rates they found some evidence that employment of teenagers was positively related to the cost of hiring adult workers. That finding was consistent with the research by London Economics (2015) that had provided evidence that the employment of young people had been protected by the lower minimum wage increases for young people just after the recession.
- 1.106** Overall, their results were consistent with the conjecture by Dube, Lester, and Reich (2014) that minimum wages reduced the likelihood of workers quitting. However, they also found evidence when analysing workers becoming eligible to higher rates of the NMW on their 18th and 21st birthdays that was consistent with the quality matching hypothesis proposed by Brochu and Green (2011 and 2013).
- 1.107** Bewley and Wilkinson (2015) also analysed job entry from unemployment. In contrast to the findings by Dickson and Papps (2016), they found that in response to NMW upratings, the probability of entering employment from unemployment appeared higher for men after 2010. They also found that job entry for women from unemployment did not appear affected by increases in the NMW.
- 1.108** Brewer, Crossley and Zilio (2015) suggested that studies that had used difference-in-difference regression techniques may not be able to identify detrimental effects as the econometric technique has low power when minimum wage increases are small, which was likely to be the case for any short-run studies. They replicated a previous study – Bryan, Salvatori and Taylor (2013) – highlighting four issues and suggested ways to tackle them: using tests of the correct size; reporting confidence intervals; converting regression co-efficients into meaningful economic concepts; and calculating minimum detectable effects. They concluded that their results might rule out large negative employment effects but confidence intervals were wide (and often straddled zero) and therefore they could not rule out reasonably-sized effects. It was often not clear whether the previous UK research using this methodology on individual data had addressed these issues. They also suggested that area-based analyses might present fewer problems.

- 1.109** Although the NMW does not vary across the UK, pay does. Researchers have used the extent of minimum wage coverage or its bite (how high it is relative to the mean or median wage of the area) to identify employment effects. Studies have for example compared the probability of employment or employment growth in the lowest wage areas with slightly higher wage areas. In general this spatial research has found very little impact of the minimum wage on employment. Stewart (2002) investigated the introduction; Dickens, Riley and Wilkinson (2009) the 2001-06 upratings; Dolton, Rosazza Bondibene and Wadsworth (2009) used data from 1997-2007; Dolton, Rosazza Bondibene and Stops (2012) and Dickens, Riley and Wilkinson (2012) used data from 1999-2011, which was extended to 2014 by Bewley and Wilkinson (2015). They all found no adverse effects on employment. Using data up to 2012, Bryan, Salvatori and Taylor (2013) found evidence that the NMW had increased job entry rates in the mid-2000s with some weak evidence that this had reversed during the recession. The pre-recession results were consistent with previous findings from Dolton, Rosazza Bondibene and Wadsworth (2009), and Dickens, Riley and Wilkinson (2012).
- 1.110** Adopting a slightly different approach using data on firms and industries rather than individuals, Galinda-Rueda and Pereira (2004) found that the minimum wage had adversely affected employment growth in the lowest-paying areas. However, Experian (2007), also using industry data, found no adverse employment effects of the 2003 and 2004 upratings of the NMW. Although their research was focused on the impact of the minimum wage on competitiveness, Riley and Rosazza Bondibene (2013) using data on firms found little evidence that the introduction of the NMW had any effect on employment, and this was also the case during the recession. Extending this analysis, Riley and Rosazza Bondibene (2015) in their analyses using firm-level and industry-level data found that increases in labour productivity had not resulted from reductions in employment. Bernini and Riley (2016) also found no evidence of a negative impact on aggregate employment within a firm but they did find some evidence that the NMW may have led to unskilled workers being replaced by more skilled ones.
- 1.111** As well as employment, researchers have also investigated the impact of the minimum wage on hours. There appears to be more evidence of adverse effects with regards to hours than employment, although the estimated reductions in hours have not generally been sufficient to reduce weekly earnings. Stewart and Swaffield (2004) found significant reductions in hours as a result of the introduction of the minimum wage, although an earlier study by Connolly and Gregory (2002) found no such strong effects. Nor did Robinson and Wadsworth (2007) in their study of second jobs and hours worked. Dickens, Riley and Wilkinson (2009 and 2012) and Bryan, Salvatori and Taylor (2012) found reductions in hours, particularly among young workers. However, Bryan, Salvatori and Taylor (2013) updated their earlier analysis and concluded that they could find no systematic effect of the NMW on hours worked by adults across time or even during the recession. Gregg and Papps (2014), in their analysis of weekly pay using ASHE, also found that the minimum wage reduced hours worked among those who remained with their employer, albeit that reduction was small and not sufficient to reduce weekly pay. In common with some previous research, such as Dickens, Riley and Wilkinson (2009 and 2012) and Bryan, Salvatori and Taylor (2012), they found some evidence that NMW increases had led to reductions in hours. In this research these negative effects appeared confined to female full-time employees since 2010. However, using alternative specifications and sensitivity tests, these negative hours effects were shown not to be

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robust. Like Bryan, Salvatori and Taylor (2013), the researchers concluded that there was only limited evidence of an impact on hours. Gregg and Papps (2014) found that for those who remained with the same employer, increases in the minimum wage did lead to a statistically significant but small reduction in hours. A ten pence increase in the NMW led to a fall in the average working week by eight minutes. They also found that increases in the minimum wage were offset by reductions in weeks worked when considering annual pay.

- 1.112** Several case studies of various industries, such as hairdressing (Druker, Stanworth and White, 2002), textiles (Gray and Hayes, 1999), hospitality and clothing (Lucas and Langlois, 1999), hospitality (Adam-Smith, Norris and Williams, 2001) and horse racing (Winters, 2001), investigated the introduction of the National Minimum Wage. These, in general, concluded that there had been no employment effects from minimum wage increases. However, Machin, Manning and Rahman (2003), Machin and Wilson (2004), and Georgiadis (2006) investigated the impact of the minimum wage in residential care homes and all found that the wage structure had been affected by the NMW but only moderate employment effects had resulted. Care homes may have absorbed increased costs through a reduction in profits, as found by Draca, Machin and Van Reenen (2011), rather than employment. In a follow-up study, Georgiadis (2013) found evidence to suggest that the NMW may have acted as an efficiency wage, in that increases in the minimum wage had been partly offset by reductions in supervisory staffing.
- 1.113** Another approach adopted by researchers to investigate the impact of the minimum wage has been the use of meta-analysis – the study of studies. This is an econometric technique that attempts to summarise the results of previous studies in a coherent and comprehensive way. Making use of 16 UK studies that had investigated the impact of the NMW on employment, De Linde Leonard, Doucouliagos, and Stanley (2014) found no overall significant adverse employment effect but noted that some negative impact could be found in the residential care home industry. Using US research, Belman and Wolfson (2014) conducted a meta-study and also found no statistically significant negative employment effects. That study built on previous meta-study work by Doucouliagos and Stanley (2009) that had looked at the impact of minimum wages on teenage employment in the US and had concluded that minimum wage increases had led to insignificant employment effects. In contrast, Neumark and Wascher (2006) had found significant adverse effects in their qualitative review of the international research since the 1990s.

Views on Employment and Hours

- 1.114** Evidence from employers again varied this year between those arguing a clear negative link between a rise in the NMW and employment and hours, and those who thought recent upratings had been absorbed by businesses without any general impact on these variables.
- 1.115** Trade unions have again said that there was little evidence to suggest that the minimum wage has had a negative impact on either employment or hours. In relation to the former, unions pointed out that UK employment was at record levels and the number of employees in low-paying sectors was on the rise.

- 1.116** The CBI said that while it considered the 2015 NMW upratings of 3 per cent ‘just about right’, caution was needed. It referred to the impact of the NMW on hours, citing previous research we had commissioned (Gregg and Papps, 2014), which it said found that for employees who were still working for the same business a year later, increases in the minimum wage had led to a reduction in hours and weeks of work.
- 1.117** The British Hospitality Association (BHA) said that while for some businesses – particularly in parts of the country with subdued economic growth – the real terms increases in the NMW have been difficult to absorb, the success and job creation of the hospitality industry has shown that the LPC’s past recommendations on NMW rates have been well judged. Similarly, the British Beer & Pub Association (BBPA) said that the moderate 2014 increases in the minimum wage rates reflected the hospitality sector’s concern not to harm employment growth in the sector at a time when economic recovery was still fragile. The BBPA said that employment levels in the sector were broadly flat over the last twelve months despite pub closures (as new pubs were being built with an increasing food-led focus).
- 1.118** However, the British Retail Consortium (BRC) told us that there was a clear trade-off between growth in employment (and other forms of investment) and NMW increases, particularly for small and independent retailers. The BRC told us that with other cost pressures, particularly from property (such as business rates) also bearing down, there was some evidence retailers were limiting new recruitment and hours available to staff (it said hours worked in food retail by employees fell for their 19th consecutive month in June 2015).
- 1.119** The Association of Convenience Stores (ACS) said that its survey of members found a clear link between increases in the minimum wage and a reduction in paid working hours and staff numbers, with almost two-thirds reporting that either or both had suffered as a result of increased employment costs. Taking account of potential loss of sales through possible future changes to Sunday trading as well as the cost of the increased NMW and NLW, the ACS said it is likely that some convenience stores will be forced into reducing the number of staff they employ.
- 1.120** In social care, the UK Home Care Association (UKHCA) explained that a high proportion of homecare services (some 70 per cent of the market) were subject to contracts with local authorities, whose budgets were being squeezed. There was a lack of realistic market signals, arising from this dominant purchasing position of local authorities and consequent unrealistically low fees. The UKHCA said that as a result homecare providers could neither offer higher remuneration nor pass on increased costs (such as those arising from the NMW) to their local authority customers. This in turn led to continuous problems with recruitment, retention and staff turnover in the sector.

“With a rising wage floor and significantly reduced commissioning fees from local authorities, voluntary disability services are set to make a deficit, which alongside the increasing difficulties in recruiting and retaining staff, is posing a threat to their viability”.

Meeting with Voluntary Organisations Disability Group (VODG), London visit

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1.121 The TUC said that the UK's jobs recovery had been vigorous in recent years with employment as at September 2015 standing at a record level of 31.1 million, 413,000 higher than twelve months previously (up 1.1 per cent). The TUC said that weekly hours worked in the UK economy for May-July 2015 were also up by 0.1 per cent on the previous year, increasing by 9.4 million to reach a grand total of 994.2 million.

1.122 The TUC also stated that the total number of employees in low-paying sectors had increased during the past two years (by 3.8 per cent up to the second quarter of 2015), adding that this was almost identical to the overall rate of jobs growth. It thought that most of this increase (226,000) was accounted for by the growth in three sectors: food and beverages; social care; and building services. In contrast, only the textiles and clothing sector suffered a statistically significant decline in employment.

1.123 The Union of Shop Distributive and Allied Workers (Usdaw) said that there had been no detrimental effect on employment arising from the 3 per cent NMW increase in 2014. It explained that while it had seen redundancies in several major retailers during 2015, these had been centred in large part on supervisory and management job tiers, with employers seeking to maximise efficiencies and simplify their staffing structures. Usdaw said that it had also seen retailers selling off parts of their

businesses to focus on their core retail operation, in an increasingly competitive market. Jobs had been preserved in these sales, it said, with workers transferring to the new employers. Usdaw also reported that it continued to see a trend towards short-hour contracts. However, in its view, this was a result of retailers working towards a goal of increased flexibility to meet customer demand, rather than cost-cutting.

'There has been previous concern about the NMW decreasing levels of employment within the UK's low-paying sectors (Retail, Hospitality, Social Work, Cleaning, Textiles, Agriculture, Security and Hairdressing). However, since the introduction of the NMW this has not proven to be the case. In fact, employment in the lower-paying sectors within the UK has increased by 1,338,000 or 20.1%.'

Unite evidence

Summary on Employment and Hours

1.124 Despite the increased level of the bite of the NMW, total employment has continued to grow in the economy as a whole. While it remains strong, growth in employment and hours has slowed in 2015. The number of jobs in the low-paying sectors had increased at a faster rate than the number in the whole economy since 2008 (5.6 per cent up to September 2015 compared with 2.1 per cent for other sectors). However, employment growth has slowed in the low-paying sectors in 2015, increasing by 1.0 per cent in the year to September, compared with 2.1 per cent experienced in the rest of the economy.

1.125 Employment growth has generally been strong over the last two years in small firms, including micro firms – the firm size most likely to be affected by the NMW. Further, the employment performance of those groups of workers most affected by the minimum wage – women, older workers, disabled workers, ethnic minorities, and migrants – has generally been better since the onset of the recession than that of others not so affected by the NMW. However, there are two groups whose experience has been worse: young people and those with no qualifications, although the employment rates of those aged 18-20 not in full-time education and those with no qualifications have improved over the last two years. Those aged 16-17 have experienced higher employment rates in the last year.

Impact on Competitiveness

1.126 Instead of reducing employment or cutting hours, firms may attempt to cope with minimum wage increases by seeking to: pass on increases in prices to customers; absorb them by reductions in profits; or raise the productivity of their workforce.

Prices

1.127 Firms affected by increases in their labour costs as a result of the minimum wage might try and pass their costs on to customers in the form of higher prices. There are three main sources of detailed information on consumer, and business-to-business prices. The CPI and RPI collate information on prices to consumers, while the Services Producer Price Index (SPPI) collects information on business-to-business transactions. Since the introduction of the minimum wage in April 1999, SPPI has increased by 33 per cent, while CPI and RPI have risen faster, by 40 and 58 per cent respectively. For the most part, it appears that firms may have found it easier to increase the prices of minimum wage goods and services (those produced by firms in low-paying sectors with a high proportion of minimum wage workers) to consumers rather than to other businesses.

1.128 Table 1.11 suggests that since the introduction of the minimum wage the prices of selected consumer goods and services have risen much faster than prices in general. However, factors other than the NMW may have been even more influential. Between 1999 and 2015, prices in restaurants and cafes; canteens; hairdressers; and dry cleaners had all increased faster than CPI. Similarly, the prices of restaurant, canteen, and takeaway meals; wine and beer; and personal services had all increased faster than the general level of RPI. In contrast, prices for many business-to-business minimum wage goods and services had typically increased much less than general price rises, for example, industrial cleaning, dry cleaning and hotels. The exceptions to this were canteens and catering, and employment agencies, where prices to business had gone up slightly more than the general increase in business-to-business prices since 1999. However, considering increases over the whole period from 1999-2015 disguises changes that have occurred within this period.

Table 1.11: CPI, RPI and SPPI Price Inflation for Selected Goods and Services, UK, 1999-2015

		Percentage change				
		1999	2004	2007	2014	1999
		Q1-2004	Q3-2007	Q3-2014	Q3-2015	Q1-2015
		Q3	Q3	Q3	Q3	Q3
CPI	All items	7.0	6.7	22.6	0.0	40.0
	Restaurants & cafes	17.2	10.0	25.9	1.6	64.9
	Canteens	28.8	11.6	19.7	-1.1	70.3
	Cleaning, repair and hire of clothing	18.0	13.8	19.4	2.2	63.8
	Domestic and household services	38.5	14.4	17.3	3.4	92.2
	Hairdressing	31.1	12.2	16.5	2.0	74.8
		All items	14.5	10.5	24.0	0.9
RPI	Restaurant meals	19.1	9.0	25.3	1.4	65.0
	Canteen meals	32.0	11.9	17.4	-0.8	72.1
	Take-aways and snacks	18.2	9.2	24.4	1.9	63.5
	Beer on sales	16.4	11.4	26.3	1.7	66.6
	Wine & spirits on sales	18.0	9.3	30.9	2.2	72.5
	Domestic services	35.0	15.5	20.6	3.4	94.4
	Personal services	32.7	14.3	27.1	2.0	96.6
	Net sector	10.6	8.7	10.1	0.5	33.4
SPPI	Hotels	9.7	13.2	-1.6	-2.0	19.7
	Canteens & catering	8.1	9.1	14.7	1.3	36.9
	Employment agencies	20.7	7.6	4.4	0.4	36.2
	Industrial cleaning	4.2	8.0	6.5	-0.1	19.7
	Commercial washing and dry cleaning	8.4	5.6	5.1	1.6	22.2

Source: LPC estimates based on ONS data: CPI all items (D7BT); restaurants and cafes (D7EW); canteens (D7EX); dry-cleaning, repair and hire of clothing (D7DM); domestic services and household services (D7E6); hairdressing and personal grooming establishments (D7EY); RPI all items (CHAW); restaurant meals (DOBE); canteen meals (DOBF); take-aways and snacks (DOBG); beer on sales (DOBI); wine and spirits on sales (DOBL); domestic services (DOCI); personal services (DOCR); SPPI aggregate net sector SIC 2003 basis (I5RX) and SIC 2007 basis (K8ZW); hotels (K8TE); canteens and catering (K8TP); employment agencies (K8XZ); industrial cleaning (K8YQ); commercial washing and dry cleaning (K8ZM), quarterly, not seasonally adjusted, UK, Q1 1999-Q3 2015.

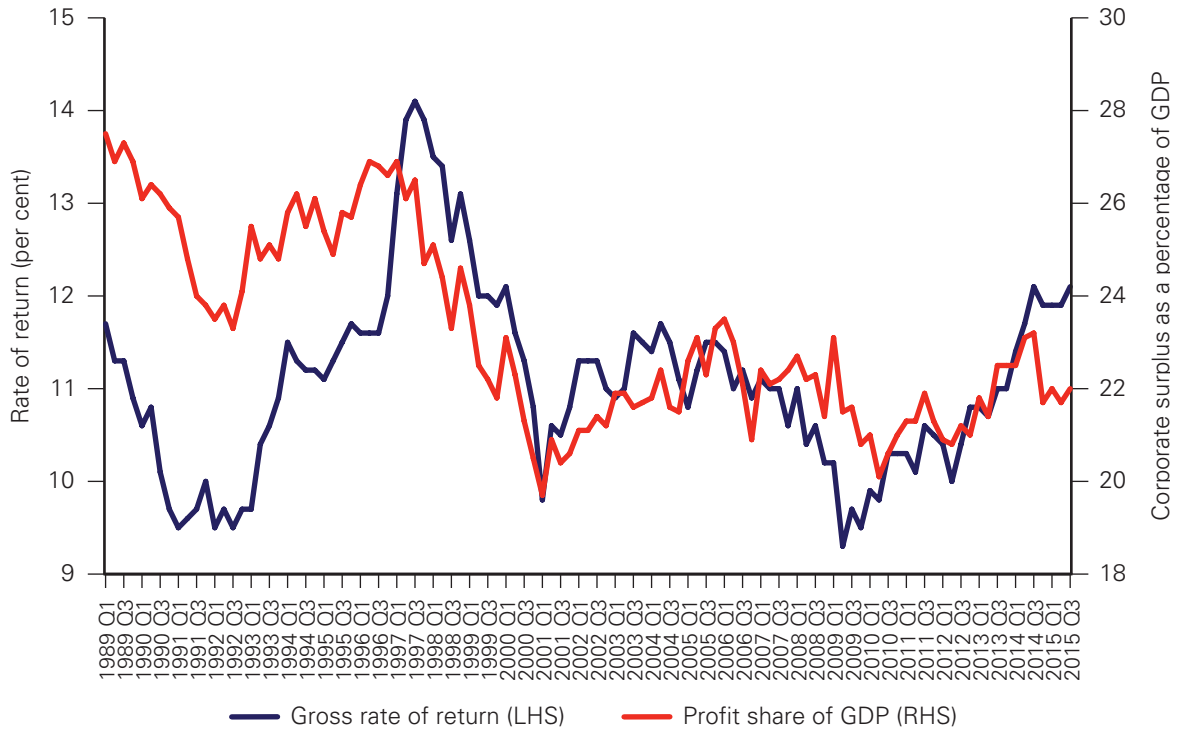
Note: SIC 2007-based SPPI net sector (transactions between business services and other sectors excluding business services) data are only available from Q1 2003 onwards. On the SIC 2003 basis they are available from Q1 1998-Q3 2010. Data provided here use the SIC 2003 basis and assume it would have grown at the same rate as the SIC 2007 data from Q2 2010-Q3 2015. All other SPPI figures are on the SIC 2007 basis.

- 1.129** Since the onset of recession, firms appear to have been much less able to pass on price rises to consumers than previously (although we are unable to identify whether other costs have also changed). However, there is a difference between trends measured on a CPI and RPI basis. Between 2007 and 2014, the price rises in selected minimum wage goods and services for consumers were generally below the general increase in CPI prices, with the exception of restaurants and cafes. The price rises in selected minimum wage goods and services using the RPI generally increased at least as fast as the general increase in the RPI. However, over the last year, this has reversed and we can see that, with the exception of canteens where prices fell, prices in those CPI goods and services selected grew faster than the general price rise. This was similar for the selected RPI goods and services, where prices grew more than the general price rise – apart from canteen meal prices which fell.
- 1.130** Overall, price rises for business-to-business transactions between 2007 and 2014 again appeared much more constrained than price rises to consumers, with the exception of canteens and catering – affected by the large increases in the price of food over that period. Business-to-business prices generally remained subdued in 2015, except for commercial washing and dry cleaning and canteens and catering again.

Profits

- 1.131** If firms are unable to pass increased costs on to their customers in the form of higher prices, they may have to try and absorb those costs by accepting reduced margins. At the aggregate level, we can measure profits in many ways, which generally give similar indications of what is happening to profits in the economy. From the National Accounts, we can measure profits by using gross trading profits or gross operating surplus of corporations. Profitability, as measured by gross trading profits for UK non-oil corporations, initially held up during the recession, growing at 4.0 per cent in 2008. It then collapsed, falling by 12.4 per cent in 2009. Thereafter, gross profits have increased, returning to their pre-recession level by the third quarter of 2012. They rose strongly by around 10.0 per cent in both 2013 and 2014, although they suffered a temporary blip – falling in both the fourth quarter of 2014 and the first quarter of 2015. They have since grown strongly again. In the third quarter of 2015, they were 3.2 per cent higher than in the second quarter of 2015.
- 1.132** Gross operating surplus has followed initially similar trends. When expressed as a proportion of GDP, it is often referred to as ‘the profit share’. Figure 1.10 shows that the profit share had fallen from around 25 per cent in the first quarter of 1998 to around 22 per cent of GDP, when the minimum wage was introduced, to about 19 per cent at the beginning of 2001. It then embarked on a general upward trend that peaked at 23.5 per cent in the first quarter of 2006. Having fluctuated just below this level, it reached 23.1 per cent at the beginning of 2009. It has since fallen back, fluctuating around 22.0 per cent.

Figure 1.10: Selected Profit Measures, UK, 1998-2015



Source: ONS, Gross rate of return (LRX0) and profit share of GDP (IHXM), quarterly, seasonally adjusted, UK, Q1 1998-Q3 2015.

1.133 Profits can also be measured using the gross (or net) rate of return on capital employed. Since the end of the recession in the second quarter of 2009, when it fell to 9.3 per cent as shown in Figure 1.10, the gross rate of return in non-oil non-financial corporations had generally been increasing until the third quarter of 2014, when it reached 12.1 per cent. Since then it has plateaued and remained around 12.1 per cent in the third quarter of 2015. That is still the highest it has been since the late 1990s, when it reached 14.1 per cent (in the third quarter of 1997). The net rate of return follows a similar pattern. These data are also available for manufacturing and services separately. They show similar trends from the late 1990s to 2014 but have diverged more recently. The gross rate of return in services had fallen from 17.9 per cent in the third quarter of 1997 to around 12.4 per cent in the depths of recession (the second quarter of 2009), it had then rebounded strongly and reached a record high of 19.0 per cent in the third quarter of 2015. Similarly, the gross rate of return in manufacturing had fallen from 13.3 per cent in the fourth quarter of 1996 to 6.5 per cent in the second quarter of 2009 and then rebounded strongly reaching 12.1 per cent in the third quarter of 2014. However, in contrast to services, the gross rate of return in manufacturing has fallen back sharply to 7.3 per cent in the third quarter of 2015 – only just above the lows recorded in the 1990s recession (7.1 per cent) and the most recent recession (6.5 per cent).

1.134 The above data on profitability present a broadly encouraging picture, but it should be noted that it is at an aggregate level, with most of it relating to the behaviour of large firms and the NMW having a minor impact at most. Anecdotal evidence, including accounts we heard during our visits around the UK, suggests small firms and certain low-paying sectors may have faced smaller profit margins than large firms. In its most recent biennial survey of small businesses conducted in 2014, BIS (2015c) found that 78 per cent of small and medium-sized enterprise (SME) employers generated a profit or surplus in their last financial year – implying

that about a fifth did not, though this is an improvement on 2012 when 72 per cent generated a profit or surplus (BIS, 2013a). Turnover had increased since the last survey with 40 per cent having higher sales than a year ago, compared with just 29 per cent in 2012. Firms were also expecting higher sales in the coming twelve months – around 51 per cent expected higher sales against 8 per cent expecting lower sales. This balance was an improvement on 2012, when it was 37 per cent and 14 per cent respectively.

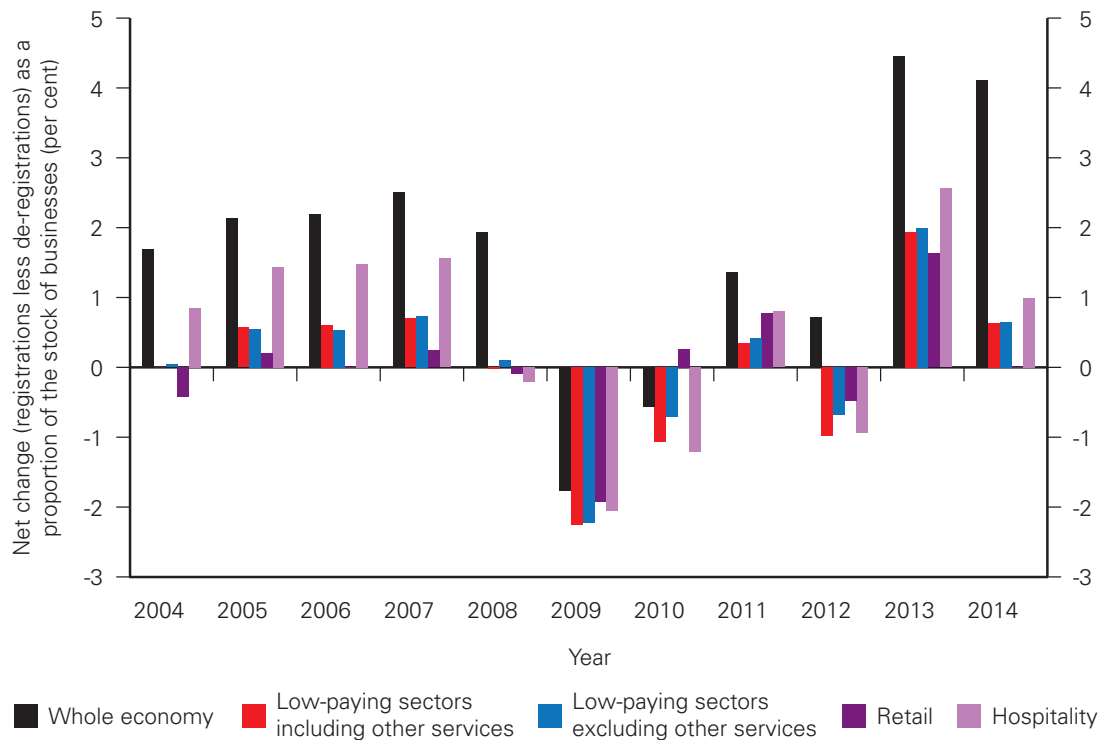
- 1.135** Business data also present a positive picture. BIS (2015i) reported that the latest Business Population Estimates for the UK showed that between the start of 2014 and start of 2015, annual turnover of all firms in the private sector increased by 5 per cent with varied growth across different firm sizes. Medium-sized firms recorded the greatest increase of 13 per cent in their annual turnover followed by a 6 per cent increase in other small firms. Turnover increased by 3 per cent in micro firms and around 4 per cent in large firms.
- 1.136** Overall, small and medium-sized firms accounted for 41 per cent of employment and 43 per cent of turnover in the private sector. Turnover per worker at the beginning of 2015 was the lowest for those with no employees (£53,300) and increased with firm size – micro firms had a turnover per worker of £108,600; other small firms £136,900; medium-sized firms £169,000; and large firms £190,700. Compared with the previous year, among all firms with employees, turnover per worker increased by 2.8 per cent with the fastest increase among medium-sized firms, up 9 per cent and the slowest in micro firms, up 0.4 per cent. Over the same period, turnover per worker increased by 1.2 per cent and 2.5 per cent respectively among other small and large firms.
- 1.137** A less positive picture is provided by the FTSE-All Share Index, which might be considered as a way of measuring (future) profitability. It ended 2014 at roughly the same level as it was at the end of 2013 – around 3,520. In line with growth in the economy and business confidence, the FTSE-All Share Index picked up in early 2015 to reach 3,787 in May 2015, but then fell back sharply, finishing the year at 3,405 (December 2015). This was back to where it was in 2007, prior to the financial crisis.

Births and Deaths of Firms

- 1.138** Another indicator of how well businesses are able to cope with the minimum wage is to look at its impact on the levels and changes in both the creation of new businesses (start-ups) and the deaths of existing businesses (failures). It should be noted that many factors can affect this, in particular consolidation due to mergers and acquisitions, which is likely to be important in the low-paying sectors. An increase in wage costs, caused by a rise in the minimum wage, might make it less attractive to start a business. Further, increases in the minimum wage might squeeze profits enough to lead firms to exit the market. In this section, we look at the aggregate and, where possible, sectoral picture of business start-ups and failures, and company insolvencies.

- 1.139** The stock of enterprises registered for VAT increased in every year from 1995 to 2008 but the recession prompted falls in 2009 and 2010. The latest data, for 2014, suggested that the stock of enterprises has now increased for four consecutive years, with growth strongest in 2013. The number of births, firms registering for VAT, fell from 281,000 in 2007 to around 235,000 in 2009 and 2010, but bounced back in 2011 and 2012 to 270,000. In 2014, that growth continued and at a much faster rate with 351,000 new firms. By contrast, the number of firm deaths, businesses de-registering from VAT, rose sharply from 223,000 in 2008 to 277,000 in 2009 but then fell back to 250,000 in 2010 and 230,000 in 2011. However, the number of firm deaths rose to 255,000 in 2012 as the recovery weakened, but fell back again (to 246,000) as the recovery picked up momentum in 2014. The net growth in the number of firms in 2014 was over 105,000. Although the number of business births was much greater than their pre-recession levels, the number of business deaths remained higher.
- 1.140** Although the stock of firms in the whole economy increased by nearly 2 per cent in 2008, Figure 1.11 shows it was at a similar level in the low-paying industries. In 2009, as the economy suffered its worst recession since the 1930s, the percentage reduction in the number of firms was greater in the low-paying industries (2.2 per cent) than in the economy as a whole (1.8 per cent). This pattern, albeit with fewer net firms lost, continued in 2010. Hospitality appeared more affected than retail, which experienced net growth. As the economy picked up in 2010 and into 2011, net firm creation was greater across the whole economy than in the low-paying industries. Although the number of new firms increased across the economy, the loss of momentum in the recovery was reflected in an increase in the number of firm deaths in 2012 and in 2014. This was more noticeable among the low-paying sectors, which experienced a fall in the stock of firms.
- 1.141** As the economic recovery picked up in 2014, the net change in the stock of firms across the whole economy grew by 4.1 per cent and by 0.6 per cent in the low-paying industries. But the composition has also changed. Following a period of larger falls in hospitality than retail, the net change in the stock of firms in 2014 was higher in the former (up 1.0 per cent) than in the low-paying industries as a whole (up 0.6 per cent), whereas the stock in retail remained largely unchanged.
- 1.142** These data on business creation and destruction contrast strikingly with our findings on employment. When assessing employment, we found net job growth had been greater in the low-paying industries than in the overall economy between 2010 and mid-2014. However, the increase in the number of jobs in hospitality is reflected to some extent in the growth in number of firms in the most recent data.

Figure 1.11: Net Change in Stock of Firms, by Selected Low-paying Industry, UK, 2004-2014



Source: LPC estimates based on ONS data; business demography, enterprise births, deaths and survivals, annual, UK, 2004-14. Note: From 2008 onwards these data are based on SIC 2007, before 2008 they are based on SIC 2003. Care should be taken in comparisons between 2007 and 2008.

Productivity

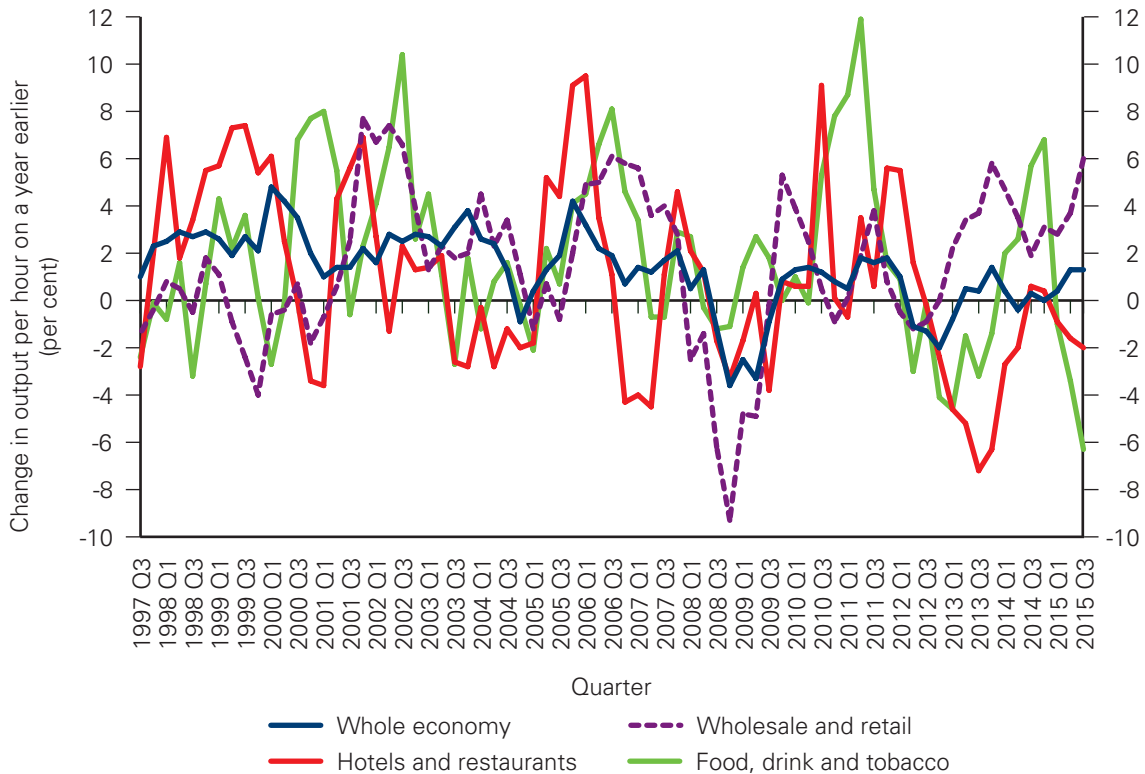
1.143 Other than reducing employment and hours; passing on costs in higher prices to customers; or absorbing costs through a squeeze in profits, businesses can seek to improve the productivity of their workforces. There are a number of ways that firms can do this. They could monitor or motivate workers to put in extra effort; adjust the work organisation to improve the capital-labour mix; invest in new equipment to replace existing workers; invest in new technology to improve the quality of capital; and/or invest in improving the quality of labour through education and training. Each of these would lead to an increase in labour productivity.

1.144 Whether measured per hour, per job or per worker, official data show productivity falling throughout the 2008-09 recession as losses in output were greater than the reductions in hours or employment. As the economy began to recover from mid-2009 and into 2011, productivity per hour, per job and per worker also picked up. However, since then productivity has generally been very weak, only returning to pre-recession levels in the second quarter of 2015 on all three measures.

1.145 Looking at productivity by sector, there has been a clear divergence between the productivity performance in wholesale and retail; and in hotels and restaurants, with neither following the path of the economy as a whole. Figure 1.12 shows that growth in productivity per hour in wholesale and retail, and in hotels and restaurants tracked the economy as a whole during

the recession and initial stages of recovery, falling in 2008-09 then rising back towards pre-recession levels by 2011. However, since the third quarter of 2012 productivity per hour in wholesale and retail has increased and is now 13 percentage points above its pre-recession level, whereas it remains over 8 percentage points lower in hotels and restaurants. In 2015, productivity per hour in wholesale and retail has continued to increase, but has fallen in hotels and restaurants. A similar picture emerges using productivity per job. This appears to be the obverse of sectoral trends in employment growth. Among these sectors, those with less strong jobs growth have had higher productivity, and vice versa.

Figure 1.12: Productivity per Hour, by Selected Low-paying Industry, UK, 1997-2015



Source: ONS, output per hour for the whole economy (LZVD); wholesale and retail (DJQ6); hotels and restaurants (DJR4); food, drink and tobacco (DJL3); quarterly, seasonally adjusted, UK, Q3 1997-Q3 2015.

1.146 Figure 1.12 also shows productivity in the food, drink and tobacco manufacturing sector, which held up reasonably well during the recession, and markedly improved in the second half of 2010 and the first half of 2011. As with the whole economy, it also slowed sharply towards the end of 2011 with productivity growth negative for much of 2012. However, productivity per hour in food, drink and tobacco manufacturing rose strongly in 2014 but has fallen back sharply in 2015.

Research on Competitiveness

1.147 As we noted above, most UK research that has investigated the impact of the minimum wage has focused on employment and hours. One of the reasons for that is the availability and comprehensiveness of firm-level data to assess other impacts on business. Whereas the Annual Survey of Hours and Earnings and the Labour Force Survey are reasonably reliable sources for assessing the impact of the NMW on earnings, employment and hours, there are limited data sources that enable an assessment of whether employers have passed on the

costs of the minimum wage: on to customers, by raising prices; on to workers, by increasing productivity; or on to owners, by reducing profit margins. Despite that constraint, researchers have used a variety of approaches to gain insights into the impact of the NMW on prices, profits and productivity. We now summarise that research on: labour costs; prices; profits; business start-ups and failures; and productivity, in particular highlighting research investigating productivity that we commissioned for this report.

- 1.148** Two of the most commonly used business data sources – the Annual Respondents Database (ARD) and Financial Analysis Made Easy (FAME) – have limitations but do provide relevant information on labour costs, profits and productivity. Research using these data has investigated the impact of the minimum wage on labour costs. Riley and Rosazza Bondibene (2013), while noting no such relationship before the minimum wage was introduced, found that average labour costs rose significantly more among low-paying firms than among firms with higher pay when the minimum wage was introduced. These effects were evident among firms of all sizes in the low-paying industries. Building on that initial research, Riley and Rosazza Bondibene (2015) found that the NMW led to increases in relative labour costs for low-paying firms at introduction in 1999, during the period of above-average wage increases (2001-06) and after the recession (although NMW increases were modest, most workers experienced real wage cuts). Increases in the NMW raised labour costs for low-paying firms across all firm sizes and industries. They were not confined to small firms and the low-paying sectors.
- 1.149** We next consider the limited research that has looked at the impact on prices. In an era when businesses have many goods and services, it is difficult to summarise changes in prices that are purely a result of minimum wage changes. There are changes in the costs of other inputs as well as on-going changes in the quality (and quantity) of products (goods and services). However, with these caveats in mind, Wadsworth (2007 and 2008) found some evidence that firms had been able to increase prices above the general price rise for those goods and services which were produced by a high proportion of minimum wage workers and were not internationally traded.
- 1.150** As well as passing costs onto consumers in the form of higher prices, firms can choose to absorb the increased costs by accepting lower profit margins. Again, it is difficult to get a clear picture of profits that is not distorted by major investments or tax changes in a particular year. However, researchers have attempted to overcome these issues. That research has generally either found little impact of the minimum wage on profits or that it has squeezed the profits of some firms. Draca, Machin and Van Reenen (2005) found that profits had fallen in the low-paying industries as a result of increases in the minimum wage. An extension of that analysis, Draca, Machin and Van Reenen (2011), found that the minimum wage had significantly reduced profits, particularly those in industries with less competition. Riley and Rosazza Bondibene (2013) also found some evidence that the NMW may have reduced firms' profitability and that these effects were more evident over the longer term (1999-2007). Forth, Harris, Rincon-Aznar and Robinson (2009) also found significant negative effects of the minimum wage on the return on capital employed. They also found adverse effects on profit margins but these were not robust.

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- 1.151** In contrast to the findings of Draca, Machin and Van Reenen (2005 and 2011), Riley and Rosazza Bondibene (2015) generally found no robust or statistically strong evidence that suggested that trends in profit margins differed substantially between lower and higher average labour cost businesses over any of the periods analysed. However, in models where they did find negative profit effects, these tended to be concentrated among low-paying small and medium-sized firms. In contrast, Experian (2007), found no effects on profits resulting from the 2003 and 2004 upratings.
- 1.152** Any squeeze in profits may restrict investment and affect the long-run viability of a business. Crawford, Jin and Simpson (2013) found that there was no strong evidence of differences in investment responses by firms of different sizes, and also little evidence of any differences in investment according to the long-term coverage of the NMW. Riley and Rosazza Bondibene (2013) also found no robust evidence to indicate that the NMW changed the investment behaviour of low-paying firms; upon introduction, over the longer term, or during recession.
- 1.153** A sufficient reduction in profits may lead to an enterprise closing down with subsequent impact on employment. Draca, Machin and Van Reenen (2005 and 2011) found that the reduction in profits had not led to business closure. Riley and Rosazza Bondibene (2013 and 2015) also found no evidence to suggest that the NMW had increased the rate of business exit. However, Forth, Harris, Rincon-Aznar and Robinson (2009) did find some weak evidence that the minimum wage may have led to higher exit rates of firms.
- 1.154** The introduction of a minimum wage (and its subsequent increases) may reduce the attractiveness of starting a new business. There is some weak evidence that the minimum wage may have adversely affected entry rates. Draca, Machin and Van Reenen (2011), Experian (2007) and Galinda-Rueda and Pereira (2004) all found evidence that business creation may have been slower as a result of the minimum wage.
- 1.155** Finally we turn to assess the impact of the NMW on productivity. Again the data sources are not perfect as it is very difficult to measure individual productivity and relate it to changes in the minimum wage. However, researchers have attempted to proxy productivity adopting a number of approaches. In general, that research has found a small positive association between productivity and the minimum wage. Riley and Rosazza Bondibene (2013 and 2015) found that low-paying firms had coped with these increases in labour costs by raising labour productivity. These productivity increases occurred in the initial years of the NMW and were apparent across data sources. Their findings suggested that these increases in labour productivity had not arisen due to reductions in employment but were associated with increases in total factor productivity. Galinda-Rueda and Pereira (2004) using plant level data; Forth and O'Mahony (2003) using industry data; Machin, Manning and Rahman (2003) using care home data; and Draca, Machin and Van Reenen (2005) and Croucher and Rizov (2011) using firm-level data all found evidence of a positive association of the minimum wage with productivity. In contrast, Forth, Harris, Rincon-Aznar and Robinson (2009) and Georgiadis (2006) found no such effects.
- 1.156** Riley and Rosazza Bondibene (2015) suggested that the positive association between the NMW and productivity was consistent with efficiency wage theories, lending support to the findings of Georgiadis (2013), and training responses to increases in minimum wages. It was

possible that this was associated with increases in average hours, but it was not possible to verify this as the data were not available for individual firms.

- 1.157** Bernini and Riley (2016) then explored the reasons for the general finding of a positive association between minimum wage increases and productivity. They attempted to identify various channels that productivity might be enhanced and investigated them further: capital/labour substitution; investment; occupational composition; outsourcing; recruitment; training; discretion; effort, and absenteeism. They used firm-level, workplace-level and employee-level data to explore these channels.
- 1.158** At the firm-level, in line with Crawford, Jin and Simpson (2013) and Riley and Rosazza Bondibene (2013 and 2015), they found no robust evidence that the NMW affected the capital/labour ratio or investment. Using workplace data, they found no evidence that the NMW had affected training or recruitment policy. Investigating employee-level channels, they found no evidence of a positive impact of the NMW on training, the degree of autonomy, absenteeism or their proxies for effort. This finding on training was similar to that by Dickerson (2007), using another data source, that there was no relationship between training and the minimum wage using data covering the introduction and first two upratings. However, Arulampalam, Booth and Bryan (2004), using yet another data source, had found a positive effect of the introduction of the minimum wage on both the incidence and intensity of training.
- 1.159** By contrast, Bernini and Riley (2016) did find some evidence of an impact on the occupational structure of the workforce. That is, firms that are most affected by the NMW tended to reduce their share of workers in unskilled routine occupations. They also found some limited evidence of an impact on outsourcing. There appeared to be little role for many of the hypothesised reasons. They concluded that any productivity effects from the NMW were likely to result from a variety of behaviours rather than a single most important mechanism.
- 1.160** The relationship between productivity and wages and how that changes with age has also been the subject of a number of research studies into the impact of the minimum wage. Again these studies have used productivity at an industry level to proxy for individual productivity and have then related that to sectoral wages and the sectoral age composition. This is not ideal as one is not able to perfectly isolate productivity changes to individuals grouped by age. Dickerson and McIntosh (2011), updating their previous study – Dickerson and McIntosh (2010) – found that there was a U-shaped age-earnings profile across the full period 2003-2010, with the highest wages paid to 30-49 year olds, but that there were no such productivity differentials between the age groups. However, they found that wage differentials between age groups had narrowed in the post-recession period (2008-10) at the same time as productivity differentials had opened up. The finding that the productivity of prime-aged workers relative to young workers increased in the post-recession period was particularly strong when attention was restricted to low-paying sectors only, where the National Minimum Wage is most relevant. This implied that young workers had become relatively 'overpaid' for their productivity contribution in the post-recession period, relative to prime-aged workers. However, the productivity results lacked robustness.

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- 1.161** Using similar methodology and data sources to that previous work by Dickerson and McIntosh (2010 and 2011), London Economics (2016) estimated age-wage and age-productivity profiles. In contrast to that earlier work, it found that the age-productivity profile was similar to the age-wage profile, which increased significantly with age. It concluded that younger workers appeared 'underpaid' relative to workers aged 30-49 but not compared with older workers (those aged 50-59) or with those aged 21-29. The productivity-wage gap coefficient for 18-20 year olds suggested that 16-17 year olds were 'overpaid' relative to their productivity contribution.
- 1.162** In contrast, restricting the analysis to the low-paying sectors, London Economics (2016) found that the productivity-wage gap coefficients suggested that younger workers were 'underpaid' relative to their productivity when compared with 21-29 year olds, but 'overpaid' relative to their productivity when compared with 30-59 year olds. This research found that wages and productivity increased with age in the low-paying sectors thus providing some support for a lower wage for young people than adults. There was some concern about measurement and spillover effects. The study also provided some tentative evidence that might give some productivity justification for the National Living Wage. It showed that the relative wages of those aged 21-24 were greater than the relative productivities when compared with those aged 25-29.

Views on Competitiveness

- 1.163** A number of employer organisations advised us that increases to the NMW, along with other regulatory costs, affected their overall competitiveness. The general message from business, providing evidence up to late 2015, was that productivity growth had been disappointing, and despite an improving economic picture overall that picture was mixed, both across the UK and between/within sectors.
- 1.164** Stakeholders representing employees were more upbeat regarding UK business competitiveness. In particular, they pointed out that profitability of UK corporations had recovered and now exceeded pre-recession levels.
- 1.165** In its written evidence, the CBI acknowledged that while the economy was performing reasonably in 2015, its overall growth forecast had been downgraded and the global risk to growth was intensifying. The CBI added that productivity growth remained in the doldrums, which had hampered nominal pay growth.
- 1.166** In the retail sector, the British Retail Consortium (BRC), representing the larger firms, highlighted a major difference between food and non-food in terms of performance, with the former subject to structural change and the latter experiencing comparatively better conditions, although both had been subject to price deflation. The BRC said that while retail output was stronger in 2015, this was not yet fully reflected in retail sales, which still lagged pre-crisis trends. Overall it said there were falling profit margins in retail.
- 1.167** The Association of Convenience Stores (ACS) said that the convenience store sub-sector of retail continued to grow ahead of the rest of the market. However, margins were under pressure from various sources, including employment costs, and growth was not shared equally across all businesses. The ACS reported that the food sector had experienced a

decrease in sales overall with retailers being forced to put more goods on promotion, in turn squeezing margins. The ACS additionally referred to a recent survey of its members which reported that 46 per cent of respondents said that NMW rises made their business less competitive.

1.168 Cleaning has the highest proportion of jobs paid at the minimum wage, and to help gauge the impact of the minimum wage on this low-paying sector, we met two cleaning companies on our visit to the South West of England in June 2015. Both companies said that the rate of pay of their workers was dependent on what the service user was willing to pay, so the effect of the minimum wage will be determined by how far its costs can be passed on as opposed to accepting reduced margins.

1.169 In agriculture, the National Farmers' Union (NFU) said that farm gate prices of many commodities had been falling. A combination of global supply and demand factors and continued intense competition at the retail end had put downward pressure on prices for farmers' goods. The NFU said it remained concerned about the current volatility in commodity prices and predicted an uncertain outlook for the agricultural and horticultural sectors.

1.170 In the childcare sector, the National Day Nurseries Association (NDNA) said that increases in the NMW continued to have a direct bearing on fees charged to parents and margins for nursery businesses. This situation was exacerbated by the level of funding from local authorities which failed to cover the costs of free early years education. In terms of future profitability in the sector, the NDNA reported that its annual survey indicated that 59 per cent of respondents expected to make a profit in the next year, down from 67 per cent the previous year. Meanwhile, 32 per cent expected to break even and 9 per cent to make a loss.

1.171 In contrast, stakeholders representing employees were more bullish regarding UK business competitiveness. The TUC highlighted that the gross profitability of UK corporations had recovered and now exceeded pre-recession levels, rising from 11.5 per cent to 11.8 per cent in the last year alone, which it said suggested that many corporations could afford a further increase in the NMW. Unite provided additional evidence regarding this issue, stating that UK corporations made profits of £101.6 billion in

“Set against the backdrop of rising costs, including pension auto-enrolment and apprenticeship funding changes, the impact of any increase in employment costs will be severe for those salons which are already struggling to remain in business, in particular the smaller salons or in more depressed regions.”

National Hairdressers Federation evidence

“If executive pay is any kind of yardstick [of corporate profitability] then the recently published figures by the High Pay Centre show that FTSE 100 bosses are now paid on average 183 times more than a full-time worker. Top bosses earned on average £4.964m in 2014. That compares to £27,195 median pay for a full-time employee in 2014. So clearly Chief Executives seem to be enjoying the rewards from the profits that their workers have brought them.”

Unite evidence

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the first quarter of 2015, which was up by £3.34 billion or 3.4 per cent from £98.28 billion in the first quarter of 2014.

- 1.172** In addition the TUC highlighted that business investment was also rising strongly (it said gross fixed capital investment grew by 4.9 per cent in the year to the first quarter of 2015) and productivity was also starting to recover at last.

Summary on Competitiveness

- 1.173** Recent evidence on competitiveness suggests higher profitability and a greater rate of firm birth than before the recession, albeit this was offset by higher deaths. Productivity has improved but remains sluggish – up just 1.5 percentage points since the first quarter of 2014. It has been stronger in retail than in hotels and restaurants, as employment and hours growth have been much weaker in retail.

Conclusion

- 1.174** The adult rate of the NMW has increased by 86 per cent since its introduction at £3.60 an hour in April 1999 – greater than the increase in average earnings and prices over the same period. Though the real value dipped during the recession (as, like wages across the economy, it increased more slowly than inflation), the increases recommended in our previous two reports (3.0 per cent in October 2014 and 3.1 per cent in October 2015) have restored most of that lost value. Measured against CPI, it is now above its real value in every year apart from 2007. It still had a little way to go against RPI.
- 1.175** It has also continued to increase in relative value. In October 2015 the bite of the NMW (its value relative to the median) was again at its highest level since introduction: 54.5 per cent for employees aged 21 and over in April 2015. The bite was also at its highest across firm sizes, reaching 67.8 per cent for micro firms and rose above 80 per cent for the first time in the low-paying sectors as a whole. Taking a longer-term comparison using adults aged 22 and over, the bite has risen from 45.7 per cent on introduction to 50.9 per cent in April 2010 to 53.9 per cent in April 2015 – a gradual acceleration in the pace of relative increase. The coverage of the NMW was also at record levels, with over a million adults (aged 22 and over) paid within 10 pence of the adult rate compared with around 700,000 in 2010. Despite the increased level of the bite of the NMW, total employment has continued to grow in the economy as a whole and in the low-paying sectors. After record-breaking job growth in 2014, the labour market weakened in 2015 but saw 1.7 per cent growth in the number of employees and employee jobs in the year to September 2015. The number of hours only grew by 0.7 per cent but redundancy and vacancy data continued to suggest that the labour market was coping with the increased labour supply – from those out of the workforce, women approaching retirement age, those beyond the State Pension Age and migrants.

- 1.176** Nonetheless there were some signs of pressures on firms. With inflation low, firms had found it difficult to pass additional labour costs on to consumers and clients in the form of higher prices. However, falling energy, commodity, and input prices, have generally enabled them to maintain or increase margins. On various measures of profitability, the corporate sector looked reasonably healthy though, other than in services, output growth had been disappointing with correspondingly poor productivity performance. Most of the competitiveness data suggested that firms were coping with the latest increases in the NMW, although there remained sector-specific pressures.
- 1.177** Research suggests that, over the long-term, the minimum wage has raised pay with little adverse effect on employment, though there may have been other effects. We have now commissioned around 140 research projects which suggest firms have coped with increased costs by adjusting pay structures, reducing non-wage costs, and making some reductions in hours. Other strategies have included: increasing productivity; increasing some prices (particularly for consumer services rather than business-to-business services); and some squeezing of profits although insufficient to lead to an increase in business failure.
- 1.178** With the introduction of the NLW, there has been renewed interest in how firms adapt. In research commissioned for this report, researchers again found a positive association between the NMW and productivity, but the precise channel remains an enigma. They could find no robust evidence that the NMW affected the capital/labour ratio; investment; training; the degree of employee autonomy; absenteeism; or their proxies for effort. However, they did find some evidence that firms affected by the NMW tended to reduce their share of workers in unskilled routine occupations, with non-labour costs important.
- 1.179** Other research, looking at how wages and productivity changed with age, found some evidence that supported increasing wages with age. Another study found that minimum wages reduced the likelihood of workers quitting and presented some evidence that employment of teenagers was positively related to the cost of hiring adult workers. These findings may help give a guide to the likely impact of the introduction of the National Living Wage, which we now go on to discuss in Chapter 2.

Chapter 2

The Impact of the National Living Wage

Introduction

- 2.1** As Chapter 1 set out, a range of evidence suggests that the National Minimum Wage (NMW) has succeeded in raising pay for workers without damaging employment or the economy. The benefits have been significant, in effect cutting off the bottom end of the pay distribution that existed before 1999, albeit increasing the pressures on employers. However, the nature of the impact on pay levels has been more muted further up the distribution, and the overall level of impact on earnings partly limited by the design of a policy which has sought to have no significant negative impact on employment.
- 2.2** On 8 July 2015, the Chancellor announced his intention to ‘tackle low pay and ensure that lower wage workers can take a greater share of the gains from growth’ by introducing the National Living Wage (NLW) for those aged 25 and over, set initially at 50 pence above the adult rate of the NMW. The NLW of £7.20 will become effective in April 2016. The Chancellor has tasked the Low Pay Commission with considering the pace of the increase such that it ‘increases to reach 60 per cent of median earnings by 2020, subject to sustained economic growth. The Government’s objective is to have a National Living Wage of over £9 by 2020’.
- 2.3** This chapter provides a preliminary assessment of the impact, as a baseline for our deliberations later this year on the NLW. It is in two main parts. The first section summarises the results of our consultation including firms and employees’ reactions to the NLW and initial views on how they are planning to adapt, as well as some preliminary survey evidence. The remainder of the chapter sets out static analysis of what the NLW is likely to mean in terms of bite, coverage and wage bills.
- 2.4** Each source of evidence suggests that the NLW represents a significant change in the UK labour market, with both opportunities and uncertainties. The main beneficiaries are low-paid workers, who are set to receive a substantial relative and real increase in pay in April 2016, followed by further significant year-on-year increases to 2020.
- 2.5** The main risks and uncertainties relate to the wider pay, employment and competitiveness effects. While sensitivity analysis conducted by the OBR (2015b) in July forecast relatively modest job losses by 2020 in a range between 20,000 and 120,000 – against wider employment gains of 1.1 million – such estimates are inevitably highly uncertain, and the impact in practice will depend critically on how employers respond. This depends in turn on economic factors including growth in GDP, employment, pay and productivity – considered further in Chapter 6.

Views on the National Living Wage

2.6 We begin with stakeholder views, where we carried out both a written consultation and a programme of visits. These sought to capture as broad a spectrum of views as possible, including from both employers and employees in low-paying sectors with, this year, nearly 100 written responses and more than 50 businesses visited. Inevitably there will have been a degree of self-selection in the organisations that chose to respond to our call for evidence or that agreed to a visit, and we do not know how representative they are. On the other hand, responses included many of the UK's biggest organisations speaking on behalf of businesses and employees, as well as a wide range of smaller businesses and workplaces across the country. Below we report the main opinions expressed. We also highlight short case studies of some firms we visited and extracts from evidence – though it should be noted we have not validated the arguments or data cited. Finally, we summarise preliminary survey evidence.

2.7 In our consultation, most businesses and employees alike welcomed the goal of higher pay as an important objective. But the detailed responses were more divided. Among employers, some were supportive, arguing a more ambitious pay floor was affordable. Others were concerned about the introductory rate of £7.20 – mainly in sectors like social care, small retail, agriculture and textiles, and some SMEs. Many fell into a third grouping: those who felt that the April 2016 level was manageable, but were concerned about the 2020 goal of 60 per cent of median earnings. Few firms had yet thought seriously about how they planned to adapt to address successive increases. Indeed, few of the firms that we know will be affected had announced publicly how they would cope with the introduction in April. A key theme across responses was uncertainty, with little information on the impacts of the NLW on differentials and on costs through the supply chain.

2.8 Firms generally reported that, in the long-term, the NLW is likely to be funded in a whole panoply of ways familiar from past experience of the NMW. There are at least eight ways to adjust to higher pay including: raising productivity by training, work reorganisation, or increased use of technology; reducing hours or jobs (or foregoing growth); squeezing premium pay and wider benefits; squeezing differentials; outsourcing work; reducing profits; raising prices; and – with possible new relevance given the adult rate is set to apply directly to 21-24 year olds only – making more use of younger staff on age-related NMW rates. While many affected respondents were trying to avoid job losses and (at this stage) extending pay differentiation by age, a number of businesses reported an intention to fund the introductory rate by a reduction in premium pay, changes to the wider reward package, squeezing differentials, limiting pay increases for other workers or reviewing hours.

Members attending from hospitality, logistics, and employment agencies expressed strong concerns about the NLW. Its reported impact on their individual businesses varied from reduced hours/employment and compressed differentials, to the prospect of business closure.

Meeting with East Midlands Chambers of Commerce, LPC visit to Leicester and Derby

Longer-term, these kinds of adjustment looked unlikely to be enough: it was clear that for some, the path to 2020 will require business models to change significantly.

2.9 The CBI was representative of the views of many business responses in arguing that the NLW was ‘a seismic shift in the way pay is set in the UK... away from an independent evidence-based approach... towards a politically driven goal’. It was ‘a big gamble’ and firms were ‘extremely worried’. Companies would adjust through jobs, hours, differentials and reduced total reward – potentially harming both jobseekers and existing employees. Its priorities in relation to the NLW included for the LPC to recommend a back-loaded path, with the rate for 21-24 year olds clearly set on the basis of affordability, not linked to the NLW. It called for the LPC to mitigate any negative consequences of higher wage bills by recommending other changes to business costs.

2.10 The Institute of Directors (IoD) and EEF, the manufacturers’ organisation, were among the more positive employer respondents on the NLW. The IoD said that ‘past experience tells us that most [employers] absorb the pressures via some combination of passing on small increases in price to consumers, a dip in profits and increases in productivity’ and ‘thanks to the strength of the recovery in some quarters, there are now plenty of businesses who can afford, over time, to meet this sort of wage rise’. However, it also warned that ‘in the long run... improving the UK’s productivity performance will be essential to making the NLW affordable... Politicians should address the underlying issues holding back pay rises, and must resist the temptation of descending into a wage auction.’

Case Study: LPC Visit to Costa Coffee

Costa Coffee told us that it was still considering how it would cope with the additional costs arising from the introduction of the NLW and likely path to 2020. However, it did not expect the policy to slow down its programme of growth. Indeed, it had decided to anticipate the NLW by introducing a new entry rate for its staff of £7.20 an hour from 1 October 2015. It was important to recognise that there were benefits to firms from a higher wage including increased staff loyalty and lower turnover of employees.

In order to adjust to higher pay, the firm was considering a number of options. For example, the NLW could enable reform of progression levels; at present there is a starter, skilled (after 6 months), and specialist rate. The future challenge would be to ensure differentials up to the Store Manager role were maintained.

During the visit we also met with some Costa staff who said they were content with both the level of training provided and reward they received, including the announced rise to £7.20 per hour.

2.11 EEF thought the ‘new wage floor should not be unaffordable for manufacturers in general’ – albeit commoditised sectors like food and drink, basic metals, rubber, plastics and chemicals were most affected. It asked the LPC to proceed with caution, particularly given wider pressures like the problems in the steel industry and China.

2.12 On the employee side, trade unions welcomed the NLW, though many thought it should be more ambitious still, citing the UK Living Wage as a better benchmark. Their responses made the case for the level of the NLW to be as high as possible, citing need arising from changes to in-work support as Universal Credit is fully introduced towards the end of the Parliament. They also made a business case: higher pay might: encourage improved productivity; reduce absenteeism; and boost demand. Many focused on the need for the rate to be extended to younger workers and apprentices, with minimal or no differentiation by age for those under 25 years old. The Communication Workers Union (CWU) among others wanted a commitment to raise the NLW/NMW to the UK Living Wage as part of a journey to a £10 an hour wage in line with TUC policy.

2.13 Employee representative responses were sceptical of concerns about affordability of the NLW by employers. The TUC thought that ‘we should not put excessive weight on risks from the NLW arising from a higher bite and coverage. It is true but is it a concern? Not in the context of improving pay growth and falling employment. Employment concerns are not credible at this stage; job creation has continued strongly even after the NLW announcement.’ The CWU was typical of several responses in arguing that concerns should also be seen in light of unfounded warnings when the minimum wage was introduced. Some evidence also pointed to high profile examples of retailers and others who have publicly committed to rates above the NLW – for example, Lidl, Aldi, and IKEA –, suggesting these cases implied wider affordability. However, a number of trade union responses also agreed they had seen evidence of businesses reducing or seeking to reduce employer-provided benefits and pay enhancements to help fund a higher basic hourly rate.

‘Some recent increases in basic rates of pay have been accompanied by reductions in certain benefits, including Sunday pay, paid breaks, paid sick leave and possibly reduction in overtime pay.’

Usdaw members, LPC visit to Blackpool and Lancashire

Impact of the Introductory Rate in April 2016

2.14 Looking first at those with views on the introductory rate of the NLW, employer responses raised concerns including: higher costs both directly and via the need to increase pay to maintain some differential for higher skilled and more experienced staff; effects on progression, motivation and incentives from any reduction in differentials that nonetheless takes place; and incompatibility of a higher pay floor with current pay structures.

2.15 The strongest critical response came from social care, where a number of responses warned that a £7.20 rate would have serious implications for a sector already in crisis. Concerns about the affordability of minimum wage increases for domiciliary and residential care are a longstanding complaint made to the LPC – we have regularly received similar evidence in the past and cited it in successive reports – but they were expressed here with renewed intensity. And both parts of the sector – care homes and domiciliary care – had also made representations direct to the Government on their concerns about the NLW and available funding.

- 2.16** The UK Home Care Association (UKHCA), representing domiciliary care providers, reported that fees paid by local authorities averaged £13.66 in September 2014 against a UKHCA recommended minimum of £15.74 (UKHCA, 2015a) – before the NLW takes effect. It thought the £7.20 rate would require a minimum fee of £16.70 an hour. It cited results from a September 2015 survey of its members, where 74 per cent of providers said ‘they would have to look to cease or reduce their supply to councils with which they trade’ (UKHCA, 2015b). It thought the homecare market was set to run at a deficit of £753 million in 2016/17. In an open letter to the Government, UKHCA said that unless the additional costs of the NLW were fully-funded it saw a ‘serious risk of catastrophic failure’ to support people who received state-funded care at home.
- 2.17** In residential care, the level of concern was reflected in the five biggest providers (Four Seasons Health Care, Bupa UK, HC-One, Care UK and Barchester Healthcare) also writing to the Chancellor calling for more funding before the Spending Review. As we highlight in Chapter 8, the real value of local authority fees for care home residents has been falling for a number of years (Laing and Buisson, 2015b). The evidence we received suggested that funding risks to care home providers varied by operator and region, depending on their reliance on local authority fees. Operators in the South East, South West and Eastern England had been helped by a greater proportion of private payers, whereas the industry in other parts of the country, such as the North East, was much more dependent on local authorities alone so was particularly exposed (Laing and Buisson, 2015c and 2015d).
- 2.18** Social care sector representatives were sceptical that policy changes, including the introduction of a council tax precept hypothecated for adult social care announced in the Autumn Statement, would make up the shortfall in funding the NLW: the view was the Council Tax precept simply transferred the burden of care funding rather than resolved it, and would likely be used by local authorities to improve volume of purchases rather than tackling inadequate provider margins. The Association of Directors of Adult Social Services (ADASS, 2015) said the Council Tax precept would raise least money in areas of greatest need which risked heightening inequality; councils in deprived areas will have greatest social care needs yet would raise less than one-third of the income of more affluent areas.² Sector representatives also thought there was limited scope for organisational and other change to fund the higher rate: raising productivity would likely mean lower staff ratios and (for homecare) shorter visits, both undesirable in an industry based on quality of relationships.

² Analysis by the Social Market Foundation (2015) concluded that the value of the two per cent precept would also vary sharply by local population age profile as well as by levels of deprivation. It ranked Council Tax income per head of population aged 65 and over: in Tower Hamlets, with a younger age profile population, the precept would raise £113 per older person, compared with just £36 in Sunderland.

Case Study: Social Care in Southend

Representatives from social care organisations in Southend told us that the introduction of the NLW worsened existing challenges for local providers of inadequate funding, fragmented contracting and difficulties of communication with funders.

Home care services are tendered by Southend-on-Sea Borough Council under a block contract designed to balance economies of scale for providers, and choice for service users. In 2011, the council went through a re-tendering process that increased the number of providers from four to nine, reducing the scope for providers to spread the fixed costs of services across large contracts, and cut the hourly rate of the contract by around £2 an hour to £11.96.

The figure was raised to £12.44 in October 2014 fixed for the remainder of the five year contract, and has not been raised again. The UK Home Care Association's cost model estimated in 2015 that an hourly rate of £15.74 was needed to meet existing costs – so providers argue the rate is already inadequate relative to need – making no allowance for overheads, or management charges. Now providers face the implementation of the NLW in April 2016, they believe that an existing problem of underfunding approaching £4 an hour is set to get worse.

Looking ahead, providers argued that the current contract is unsustainable. Providers have been paying a contact allowance, bonus payments and unsocial hour enhancements from their margins, limiting investment. They said they were struggling to recruit, with consequences for effectively managing the service.

The Council disputed providers' criticisms, saying: it meets them quarterly; that the 2011 retender of the contract was based upon best practice in procurement; that providers willingly entered into the contracts, and did not take up a subsequent offer to go through an open book process.

Nonetheless, it recognises that the NLW is a pressure area for providers, which was discussed at a recent meeting. It has agreed to complete a full cost recovery template which will provide a breakdown of the suggested hourly rate. The Council also confirmed that it is taking up the two per cent Council Tax precept 'to support the service redesign and transition to new style services, including a commitment to develop an outcome based approach to the commissioning of domiciliary care'.

However, providers are concerned that even with a Council Tax increase, funds will be insufficient to pay the required rate for home care providers: large-scale withdrawal from contracts by providers was a real possibility. One organisation had already withdrawn from its contract - which was offered by the Council to other block providers. There was a risk in the coming years that 'community care will fall apart leaving thousands of extremely vulnerable people at significant risk of harm.'

- 2.19** Among small firms the Federation of Small Businesses (FSB) reported that 38 per cent of 1,261 respondents to its survey thought the introduction of the NLW would have a negative impact on their business (compared with 54 per cent reporting no or marginal impact). Firms would adjust to the NLW by adopting a number of methods, including putting off hiring, raising prices or reducing hours.
- 2.20** In retail, the Association of Convenience Stores (ACS) argued that smaller stores would be significantly affected by the £7.20 initial rate, given pay for entry level workers in its sector was about £6.65. It highlighted estimated costs of the £7.20 rate at £167 million to the sector. It thought there was limited scope to fund this through some of the means open to other sectors. In a low-margin business, where local stores already charged a premium over supermarkets for convenience, price rises would be risky. There were practical constraints on varying pay by age (even if firms wanted to, workers tended to know what each other were paid, and in any event there are product age restrictions discouraging use of younger workers). Firms were already diversifying into products including post office counters and parcel collection – but margins here were fixed. In the short-term, firms were looking at funding the NLW through reviewing the overall employment package/benefits, reducing pay differentials and reducing staffing levels. In the longer-term, structural change would be needed. This could include retailers delaying investment and business expansion, reducing staff hours and numbers, increasing product costs and in some cases closing their business or stores within the estate.
- 2.21** Some parts of the hospitality and leisure sectors also saw the introductory rate of the NLW as having an early impact. The Association of Licensed Multiple Retailers (ALMR) referred to a survey of its members, which suggested that the introduction of the NLW could increase wage costs by around 11 per cent and see 80 per cent of companies facing reduced profits as a result. The ALMR commented that the NLW introduction would limit further pay increases – as well as infrastructure, training and capital investment – and therefore future wage growth in the licensed hospitality sector is likely to be determined primarily by statutory pay rises. Business in Licensing (BIL) highlighted that the gaming sector, including bingo halls, had been hit hard economically in recent times and the NLW may reinforce pressures leading to closures. The UK Cinema Association warned that upratings of the NMW/NLW ‘may prove impossible for many operator companies... without it impacting on their ability to recruit new employees – particularly those over 25 – and/or without passing some proportion of the additional operating costs onto consumers through increased ticket prices.’
- 2.22** In contrast, the union Unite pointed to sector data produced by PricewaterhouseCoopers (PwC) which it said suggested the hospitality sector was in a strong position to be able to afford increases in the minimum wage. Unite said that in the restaurant part of the hospitality sector, consumer spending on eating and drinking-out was at its highest on record in May 2015, according to the (then) latest Barclaycard Consumer Spending report. Falling prices, stronger wage growth and record-high employment saw restaurant spend rise 16.7 per cent year-on-year, while the pub trade saw a 14 per cent boost in sales – the highest reading in the previous 13 months.

National Minimum Wage

- 2.23** Representing the employment agency sector, the Recruitment and Employment Confederation (REC) was relatively positive, arguing that the NLW had been well-received in many quarters and could have a direct and positive impact on UK productivity. However, feedback from REC members included that the NLW was likely to be a particular challenge in the retail, hospitality, agriculture and care sectors. Low margins meant limited room to absorb immediate increases in the wage bill.
- 2.24** Following these sectors came a number whose views on the introductory rate were tied up with high labour intensity, and (often) international competition: agriculture, food and furniture manufacturing, and textiles.
- 2.25** In agriculture, Monaghan Mushrooms warned that labour makes up a high proportion of its operating costs, with forward pricing for its products already fixed prior to the NLW announcement. While the vast majority of its workforce was paid above £7.20, it was concerned that the rise in 2016 and subsequent increases to 2020 could cause problems with differentials and incentivising mushroom pickers. Laurence J Betts, salad farmers, highlighted a substantial increase to its seasonal worker wage bill arising from the introduction of the NLW. Offering some insight into how firms might adapt, the Association of Labour Providers (ALP) thought that the response to a higher pay floor would be varied, including users driving tighter margins from suppliers, a squeeze on differentials, and demands for higher productivity. To the extent this included acceleration of existing trends towards automation, it had the potential to reduce employment. It cited the recent introduction of unmanned planters for brassica in Scotland, automatic parsnip trimming lines and automated chicken deboning machines. The National Farmers' Union (NFU) agreed that the introduction of the NLW would have the most pronounced impact on businesses where labour was the key input – for example, in horticulture where seasonal workers were relied on to harvest crops and the vast majority were aged over 25. It had commissioned analysis from business consultants Andersons on the impact of the NLW, which was due to report in February.
- 2.26** In textiles, UK Fashion and Textiles Association warned that 'most of our members are very concerned'. Many skilled machinists were already having wages 'made-up' to £6.70, and this would be a further pressure. It told us it will in practice be very difficult to make up the wages of a skilled 22 year old to £6.70 and a 28 year old colleague machinist to £7.20 an hour so de-facto the pay floor in these circumstances would end up as the higher figure. It thought that for some small companies this could result in redundancies and may threaten closure.
- 2.27** In food, a survey of members by the Craft Bakers Association found 87 per cent of respondents would increase prices and 67 per cent reduce hours or staffing levels to accommodate the NLW. The Food and Drink Federation (FDF) advised that although companies hoped to be able to deal with the increase in costs, there would be many who were adversely affected by these changes. Coping strategies could include greater automation. Furthermore, members would be affected by the NLW due to the effect on the whole supply chain, leading suppliers and other links in the chain to push up their prices and retailers looking for more competitive margins.

2.28 Sectors dependent on government funding also highlighted risks. The Independent Children's Home Association for example warned that its sector faced similar problems to those in social care, but to a greater degree because there were no private purchasers to help cross-subsidise costs. The introduction of the NLW could be the tipping point for some homes.

Trajectory and Impact as the National Living Wage Moves Towards 2020

2.29 A wider set of firms thought the initial rate of £7.20 would be manageable but were concerned about the future trajectory to 2020. These responses cited likely adjustments including reduced jobs and hours, further pressure on differentials and the wider reward package (with implications for progression), and negative impacts on particular groups of workers.

2.30 Social care providers were the most concerned, with several arguing that, in the absence of more funding, the NLW by 2020 threatened business viability. A large provider of supported-living services to people with learning disabilities, said it was simply unable to increase wages by the (likely) required amount, and that the NLW would add an additional £2.5 million to its annual wage bill in 2016/17; with an estimated additional £4 million in 2017/18. Around 80 per cent of income was spent on staff salaries and 92 per cent of its 10,000 staff were aged 25 and over. Its concern was that the whole social care market would be at risk of failure. A national care provider warned that a NLW rate at £9 per hour generated a cost to its business that its modelling suggested would be 133 per cent of profits and cash flows. Without a substantial re-alignment of funding for care home provision the business would cease to exist before it was able to pay the £9 per hour rate. A social care charity warned us that there was no longer any margin in the service and the result of this enforced wage increase would be to drive organisations in the sector out of business.

2.31 Some bigger retailers were also concerned about the path to 2020. While the short-term focus was the transition to the NLW in April 2016, including the challenge of redesigning pay systems and the impact on salary sacrifice arrangements, the longer-term concern was maintaining current pay differentials. One large retailer was worried about the fit with its pay philosophy – for example, reconciling the NLW with its use of pay bands, use of commission, and treatment of annual bonuses. The British Retail Consortium (BRC) thought the NLW has the 'potential to adversely impact the pay structure and differentials for many of the companies concerned' harming progression. It is 'likely that, for some companies... it will lead them to review pay enhancements and related premia to address legacy issues'. It is 'inevitable that, in some cases, it will have a material impact on store profitability'.

2.32 Unions were more sceptical about concerns regarding the affordability of the NLW in retail. Usdaw believed that most retail employers would absorb the additional costs of the NLW and that the trend towards consolidated rates, with premium payments being eroded gradually over the years, was nothing new. The GMB referred to the position at Next on affordability of the NLW, quoting the retailer as saying that the cost of introducing the NLW was £27 million: 'while it's a lot of money in the scheme of things it's not transformative... not welcome, but

it's not unmanageable'. Respondents also cited upbeat forecasts of sector growth, albeit driven by large chains, not independent stores.

Case Study: Group of Large Retailers

A group of large retailers told us that they were much more worried about the path of the NLW to 2020 than about the introductory rate of £7.20. None envisaged immediate job cuts as a way of affording the new rates but it would affect future growth in jobs.

There was little appetite or scope to manage costs by pay differentiation by age given legal risk and employment relations challenges.

Two of the firms had concerns regarding the impact of the NLW on salary-sacrifice schemes, leading to older workers being moved out of the current schemes to their net detriment.

Others were planning to accelerate plans for automation, including growing the share of business executed online.

- 2.33** The view that the path to 2020 was the main challenge extended to some hospitality firms. One major employer in the hospitality sector, for example, thought the path was 'uncharted territory', projecting its total wage bill to increase by 14 per cent in 2016. Hoteliers highlighted issues including direct and supply chain costs, differentials, and possible impact on benefits like meals on duty, free uniforms and healthcare.

Case Study: Independent Retailer

A director of an independent retailer told us that he strongly supported higher pay but had some concerns. To meet the cost of the NLW, the firm thought it would have to raise branded-goods prices by up to 18 per cent, which was not a viable option given low price inflation. The company would therefore need to look at offsetting costs.

In terms of future payroll costs, more than two-thirds of the workforce were likely to be aged 25 or over by 2020 and so would qualify for the NLW. Recruiting younger and cheaper staff would be self-defeating, as they would not have the necessary customer skills.

The key coping strategy would be to review overall staff benefits, and not replace staff who leave. The company might also cut back on training.

- 2.34** In childcare, the National Day Nurseries Association (NDNA) said that the impact of the NLW would 'threaten business sustainability, risk loss of childcare places and push up the cost of childcare for parents'. Its survey of 300 child nurseries in July 2015 found total payroll costs were anticipated to increase by 10 per cent from April 2016, and by 35 per cent from April 2020. Around 50 per cent of respondents said the NLW would affect their pay policy for under 25 year olds, with 58 per cent balancing their books by recruiting younger staff, having tighter staff-child ratios or employing fewer supernumerary staff – all of which could adversely affect the quality of childcare they can offer. In oral evidence, the NDNA advised

that a large proportion of nurseries were already loss making or break-even only, with the existing free childcare offer from the Government to parents underfunded by about 80 pence per hour. In combination with more free hours from 2017/18, the NLW presented a risk for many businesses, especially smaller ones. Many parents of 3 and 4 year olds getting 30 hours of free care would no longer need to buy extra hours, so there would be reduced opportunity for cross-subsidy from private payers – just as the NLW increased in cost. The Wales Pre-school Providers Association welcomed the NLW in principle but said it had been advised that ‘increased costs... will have to be passed on in higher childcare fees which will have to be met by parents’.

Meanwhile, a small day care nursery chain said it would increase fees by at least five per cent per year for the five years of the Parliament to accommodate wage costs.

A group of Scottish hoteliers expressed strong concerns about the NLW. Their modelling of the impact (assuming workers under 25 year old would receive the same rate) found that while the initial rate of £7.20 could be accommodated, the path to £9 would halve profits and in some cases endanger banking covenants. The general view was that mid-range hotels would be most vulnerable, with increased use of automated services in all but top-end establishments.

Meeting with Scottish hoteliers, LPC visit to Scotland

Case Study: Day Nurseries in Belfast

The Managing Director of a chain of day nurseries employing more than 200 staff across eight different sites told us that the new NLW rate would add £150,000 to its payroll costs of £2.4 million.

The new rate for workers aged 25 and over would disrupt existing pay structures in relation to payment of unqualified versus qualified staff and reduce differentials. The current average cost for the parents would increase by around 7-8 percent every year – potentially reducing demand, and with possible risk to jobs and employment opportunities. Consequences could include parents of young children moving into temporary or permanent economic inactivity or sourcing childcare from informal unregistered arrangements.

While he appreciated the benefits of a higher-paid workforce, he thought the NLW would damage efforts in his area to get parents back into employment.

2.35 In the hairdressing sector, the National Hairdressers Federation (NHF) thought the Government’s ambition for the NLW to be 60 per cent of median earnings seemed an unrealistic target for many small businesses and posed a threat to their viability and to future employment within the sector.

2.36 In manufacturing, the British Furniture Manufacturers Association (BFM) thought that the introduction of the NLW could result in an erosion of the differential between skilled and unskilled worker rates paid under the terms of the sector wage agreement. To catch-up with

National Minimum Wage

the NLW the skilled rate would need to rise by 4.2 per cent in 2016, while to restore the differential between rates there would need to be a near 11 per cent rise for skilled workers. Taking into account these required changes together with other knock-on effects, including overtime, sick pay and paid leave, would reduce company profitability and competitiveness and potentially result in fewer companies and workers in the industry. In its view the proposed rises to 2020 were unrealistic as they did not take account of the employers' ability to pay. It thought the effect could be severe for some companies and for jobs. BFM advocated a longer period to reach the 2020 NLW target rate, of a minimum of 7 years.

- 2.37** There were few public sector respondents. However, the Universities and Colleges Employers Association warned that the lowest point on their pay scale for those on a 37 hour week will need to increase by 21.1 per cent by 2020 and highlighted 'a genuine concern that both employment levels and... benefits would come under pressure'. Other evidence related to the public sector was with respect to the impact of the NLW on publicly-commissioned services.
- 2.38** The British Association of Landscape Industries (BALI) thought that by 2017, taking into account the likely path of the NLW, members faced the prospect of contracts in the local authority grounds maintenance sector becoming financially unviable. This reflected that contracts were either fixed price, or where cost-increase indexation was provided for, they were capped, typically at 2 per cent.

Case Study: Baker in Essex

The owner of a small family-owned bakery in Essex told us that – while he supported higher pay in principle – the NLW would be very difficult to accommodate affordably towards 2020. He felt it was likely to result in him closing the business, and he was already making plans in relation to redundancy costs.

The business is made up of three bread and cake shops employing 23 workers including 18 shop staff, 2 bakers and a delivery driver – all run with a family ethos.

Like other small bakers, the firm has generally been under financial pressure, with highly price sensitive customers, large chain competitors locally, and a high quality artisanal product range which is expensive to produce. Prices have been flat since 2012, though falling commodity prices have helped keep the business on an even keel over the last couple of years.

The NLW is set to be a challenge because, according to his estimates the October 2015 NMW uprating together with the £7.20 NLW introductory rate will increase his labour cost bill by 9.2 per cent. In addition he is anticipating a further 7.2 per cent each year until 2020.

The firm said that to help cope with the significant additional NLW costs, it would consider putting up prices and reducing its opening hours Monday to Friday.

- 2.39** Across the public sector generally, REC thought the Government needed to clarify how public budgets will be increased to cover additional costs. UNISON was strongly supportive of a

higher minimum wage. It was also concerned that without a Government commitment to fully funding the increase in costs from the NLW there could be further pay restraint for other staff groups, job cuts and deterioration in services.

- 2.40** As the NLW increases to 60 per cent of median earnings in 2020, it may reach new sectors little touched by the existing NMW rates. At our oral evidence sessions the Local Government Association (LGA) provided details of the impact of the NLW on local government. The LGA said that the introduction of the NLW at £7.20 in April 2016 would cost the sector £7 million pounds. The reason for this relatively low figure was that the bottom rate of pay in their pay spine was £7.06, just below the NLW. However, the LGA added that as the NLW moved towards 60 per cent of median earnings the costs for local government (in relation to the directly employed workforce) would increase to £111 million by 2020.³ The wider concern was the impact on commissioned services, especially (as already noted) social care.
- 2.41** Call centres are another sector likely to be affected in future by the NLW. In oral evidence the CWU told us most of its call centre members were paid at or above the introductory level of the NLW. Some agency workers who were on 'pay between assignments' contracts and therefore not entitled to equal pay with their counterparts, were earning between £7.25 and £7.50 working in large call centres in places such as Glasgow, Doncaster, Newcastle and Warrington. However, most of its permanently employed call centre members earned considerably higher rates depending on their role and level of responsibility. Therefore it advised us that while most of its call centre members would not benefit from the Government's introductory NLW, many would benefit as the NLW increased towards £9.
- 2.42** Some voices warned that the NLW might affect recruitment of particular groups, with employment risks for low-paid women, disabled people and older workers. The FDF also thought it was 'likely to have a greater impact on low-skilled older workers who will become more expensive than young workers at the same skill level'. The ALP noted that 'more A8 and A2 migrants will choose to work in the UK for the higher wages, as opposed to remaining at home or migrating to other EEA countries'.
- 2.43** As well as responses to our consultation and case study evidence from visits, there is some emerging survey evidence on employer responses, which broadly confirms a picture of sector-specific pressures combined with considerable uncertainty.
- 2.44** An initial survey of the impact of the NLW by Incomes Data Research (IDR), commissioned for our 2016 reports, focused on 40 large high street chains, largely in the retail sector. It found that most employers had yet to make a decision on how to implement the NLW. Some employers had deferred pay rises from earlier months while others had not yet decided whether it would be implemented for all staff or just those aged 25 and over, or whether employees paid above the NLW would also receive an increase. It was common for employers to be looking to see how competitors were going to react. The research identified some moves by employers to merge starter and established rates of pay, or to merge supervisor/team leader roles with the lowest manager grades. In a small number of responses, firms reported introducing skills-based progression including upskilling the

³ Subsequent local government earnings survey data indicated the 2016 costs will be around £4.7 million.

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supervisory role to give it a higher rate of pay and more headroom over the NLW rate, and in one case multiskilling for all team members. This research will be published alongside our Autumn 2016 Report.

- 2.45** XpertHR (2016a) conducted a survey of 417 employers, collectively employing 833,000 staff, in November and December 2015. Just under half of respondents employed staff aged 25 or over and paid less than £7.20 an hour. XpertHR calculated the costs of implementing the NLW at £593 per affected employee in the first year of operation. The cost to small and medium-sized businesses (those with fewer than 250 staff), at £600 per head in year one, was the same per employee as the cost to employers with between 250 and 999 employees – and less than £10 per person per year above the median for all employers. A lower proportion of smaller employers surveyed said their employees would be directly affected by the NLW (38.2 per cent compared with 45.8 per cent overall), and the percentage of the workforce affected within that group was only a little higher (13.8 per cent compared with 11.8 per cent overall).
- 2.46** The survey highlighted considerable variation in how employers planned to treat other staff in their organisations, who were not directly affected by the NLW. Most commonly they intended to offer pay rises for this group in line with previous expectations (41 per cent), implying compressed differentials. However, a significant minority (15 per cent) believed they would have to offer larger pay rises to maintain differentials. Many others planned to offer smaller pay rises (21 per cent) or even to freeze pay (10 per cent) to fund the National Living Wage for the lowest-paid group.
- 2.47** Employers were asked how they would fund pay increases as a result of the NLW. The most common response was to increase the reward budget (46 per cent), while the second most common option was to increase prices (25 per cent). A significant minority were looking (at least in part) to a self-funding or zero-cost approach, by reducing bonuses or other discretionary payments (15 per cent) or reducing the amount spent on employee benefits (11 per cent).
- 2.48** A joint Chartered Institute of Personnel and Development (CIPD)/Resolution Foundation (Resolution Foundation, 2015) survey of 1,037 employers, also asked for the three most important things employers planned to do in response to the NLW. Respondents were most likely to say they intended to manage these higher costs by improving efficiency/productivity, with almost a third (30 per cent) of employers intending to do this. It was not clear however exactly what this meant in practice and why they had not considered these productivity improvements prior to the introduction of the NLW. Taking lower profits/absorbing costs was the next most popular response (22 per cent), followed by reducing overtime and bonuses (16 per cent), raising prices (15 per cent) and reducing the number of employees through redundancies or slower recruitment (15 per cent). Fewer than one in ten employers said they would reduce the basic pay growth rate for the rest of the workforce (9 per cent), reduce hours (9 per cent), hire more workers aged under 25 (8 per cent), hire more apprentices (8 per cent) or cancel/scale down plans for investing in or expanding the business (7 per cent).

- 2.49** Resolution Foundation (2015) noted however that the responses differed by type of employer. Small employers (those with 1-249 staff) were more likely to say that they would respond by raising prices (25 per cent) than larger employers (those with 250 or more staff) of whom just 10 per cent said they would respond in this way.

Summary of Views on the National Living Wage

- 2.50** Overall, responses to the LPC's consultation highlighted a wide range of views on the impact of the NLW and considerable uncertainty. Many firms in low-paying sectors told us that they expected to be able to cope with the initial rate through a mixture of reduced premium payments, higher prices, lower profits or offering fewer hours. The main areas of concern were smaller businesses in more marginal sectors and places, and especially the longstanding issue of the social care sector. Here providers warned that, in combination with other pressures, the introductory rate of the NLW presented a risk to the viability of some businesses, particularly in the north. The response of local authorities will be critical, though there were real concerns about their ability to meet the costs of the sector even with extra flexibility on Council Tax, particularly in poorer areas with high need but a weaker tax base. A further message from our consultation with employers and workers is that most organisations are still working out how they will accommodate the NLW, and have not yet looked beyond this year. Significant change in many business models is likely to be needed towards 2020.

Impact of the National Living Wage on Pay, Coverage and Wage Bills

- 2.51** Against the backdrop of stakeholder views and survey evidence, the second part of this chapter turns to the LPC's quantitative analysis of the impact of the NLW. How it will operate in practice depends on a wide range of variables that are difficult to model. Here we focus on static analysis considering several aspects in turn. We begin with the basis and level of the NLW in the context of the NMW. We then turn to its value relative to median earnings (or bite) and its coverage (the numbers and proportion of employees or jobs paid at the minimum wage). There is no exact relationship between a high bite, coverage and considerations of affordability – as Chapter 4 discusses, 21 year olds have a high bite that increased sharply in 2010 when they became eligible for the adult rate, without apparent strong employment consequences. Nonetheless, we have typically evaluated these as measures of the possible scale of the NMW's effect on the labour market as well as possible leading indicators of employer 'stress' in adjusting to the minimum wage. A high bite or coverage is also likely to have implications for progression – since it indicates high proportions of people earning a similar wage within an industry. Towards the end of the chapter we look at a third and fourth measure of the impact of the minimum wage: its effect on wage bills, and how our minimum wage compares internationally.

Basis and Level of the National Living Wage

- 2.52** The NLW is set to apply to workers aged 25 and over. Chapter 4 discusses the basis of the age structure in relation to younger workers. But there are in principle good reasons to believe older workers may be able to bear a higher wage floor than younger workers. As the LPC has long argued in relation to the youth rates, international evidence suggests that younger workers are more exposed to unemployment risks from a high wage floor. Scope for higher pay for older workers is reflected in their greater average experience, higher average wages and lower unemployment levels (for example, median pay of workers aged 25 and over was £12.39 in April 2015 compared with £8.24 for workers aged 21-24). This has led some analysts in the past – for example, Manning (2012) – to argue for a higher minimum wage for workers aged 30 and over, albeit this would require primary legislation to enact.
- 2.53** For the analysis in this chapter we consider the NLW in both 2016 and 2020. A key challenge in doing so is that a forward-looking assessment depends on predictions that are inevitably speculative.
- 2.54** This is particularly relevant for estimates of bite and coverage of the NLW where we do not know how the wage distribution and underlying population will change over time, including the degree to which increases in the minimum wage will push pay higher up the distribution (so-called spillover effects). For the purposes of the analysis here, we base predictions of the coverage and the bite on the wage distribution from the most accurate and up-to-date pay data available, the Annual Survey of Hours and Earnings (ASHE) 2015, using downrated estimates of the introductory £7.20 level of the NLW, and the contemporary measure of 60 per cent of average earnings at that point. In reality, the assumption the NLW will increase to the target level is a likely but not wholly certain one: it is subject to sustained economic growth, LPC recommendations and Government decisions. We also assume that minimum wage rates for workers aged under 25 increase in line with average earnings only, so neither the bite nor coverage of the NMW changes for this age group. The pay floor for these workers has generally increased faster than average earnings in the past, so this may prove an underestimate. A third assumption is that wages of employees earning just above the NMW at the time of the October 2015 minimum wage uprating increase in line with average wage growth, and we also include workers paid less than the NMW in our measure of coverage. Other assumptions are more technical: our definition of the wage; the weighting variable used; and estimates of spillover effects are in line with our historic practice. Overall, these assumptions give broadly similar estimates of direct coverage to D’Arcy and Corlett (2015), D’Arcy, Corlett and Gardiner (2015) and BIS (2015j) – but slightly larger than the OBR (2015b, 2015c and 2016).
- 2.55** Uncertainty about the future also bears directly on the 2020 goal where the cash value of the ambition of 60 per cent of median earnings will vary according to forecasts of average earnings, and the baseline provided for median hourly pay from ASHE updated each year.
- 2.56** Indeed the fact that the 2020 goal is to some extent a moving target is already apparent in earnings statistics released since the policy was announced. At the time of the announcement of the NLW in July 2015, the Office for Budget Responsibility (OBR, 2015^b) estimated that the ‘target’ NLW would be £9.35 by 2020. In November this was revised to

£9.30 in light of new earnings forecasts which predicted faster short-term earnings growth but then slower wage growth after 2016. In January the OBR (2016) updated the estimate again using the same November forecast but with newer pay data – ASHE 2015. Due to the data showing lower wage growth than was forecast, the ‘target’ NLW was revised to £9.15 in 2020 (rounded to the nearest five pence).

- 2.57** Using the latest ASHE 2015 data and the latest available OBR (2015c) forecasts, we estimate that the median will now be £15.27 in October 2020, as shown in Table 2.1, implying a ‘target’ NLW of £9.16 – about 19 pence or 2 per cent below that calculated, when the policy was announced in the summer.

Table 2.1: Changes to Forecast Median Earnings for Those Aged 25 and Over, UK, 2014-2020

LPC estimates using	ASHE 2014		ASHE 2015	
	OBR Jul 2015 forecasts	OBR Nov 2015 forecasts	OBR Jul 2015 forecasts	OBR Nov 2015 forecasts
April 2014	12.20	12.20	12.20	12.20
October 2014	12.37	12.33	12.30	12.30
April 2015	12.44	12.54	12.39	12.39
October 2015	12.62	12.76	12.57	12.61
April 2016	12.87	12.98	12.82	12.82
October 2016	13.13	13.22	13.08	13.06
April 2017	13.41	13.47	13.36	13.31
October 2017	13.68	13.73	13.63	13.56
April 2018	13.97	14.00	13.92	13.83
October 2018	14.26	14.27	14.21	14.10
April 2019	14.57	14.55	14.52	14.37
October 2019	14.89	14.83	14.84	14.66
April 2020	15.23	15.14	15.17	14.96
October 2020	15.59	15.46	15.53	15.27

Source: LPC calculations based on: ASHE 2010 methodology, ASHE 2014 and ASHE 2015, standard weights, including those not on adult rates of pay, UK; OBR average hourly earnings growth forecasts, July and November 2015.

Note: As part of its March Economic and Fiscal Outlook, the OBR will produce an updated average hourly earnings forecast. This could further change our forecast of median earnings.

- 2.58** Here we follow the OBR in measuring the NLW bite in October. This gives a slightly higher cash figure than measuring it in April, the approach that the LPC has historically taken, reflecting the changed calendar for the NLW (which runs April to April rather than October to October, as currently for the NMW). The Government has advised that for the purposes of the remit, the bite should be measured at the mid-year point, as the best proxy for a whole-year average.

Impact on Earnings and Pay

- 2.59** The changing cash value of the 2020 goal reinforces the point that it is difficult reliably to forecast earnings data some five years ahead and the specific figure may be subject to large

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revisions as we progress towards 2020. Nonetheless, the cash value provides a sense of the scale of the impact.

2.60 Table 2.2 shows cash and percentage increases in the main NMW rate from the introduction of the policy in 1999. The increase in April 2016, from a NMW of £6.70 to the new NLW of £7.20 for those aged 25 and over, is 50 pence or 7.5 per cent. On a year-on-year basis, it is an increase of 70 pence or 10.8 per cent – it was £6.50 in April 2015. In cash terms the introductory rate is the biggest increase in the main rate since the minimum wage was introduced. In percentage terms, it is the third highest increase in the main rate after 2001 and 2004 and the joint highest on an annualised basis. Looking ahead, the forecast 27.2 per cent increase from April 2016 to April 2020 is set to occur over a period when average earnings are forecast to increase by around 17 per cent. This is slightly more ambitious than the previous biggest sustained increases 2002-2006, which lifted the NMW 23.2 per cent (from £4.10 to £5.05). If borne out, the percentage and cash increases will be the largest ever over a comparable period, albeit applying to a group of workers – aged 25 and over – with higher average pay than those aged 21 and over.

Table 2.2: Cash and Percentage Increase in the National Minimum Wage/National Living Wage, UK, 1999-2016

Minimum wage in (October)	Main NMW rate (£)	Age	Cash increase (£)	Percentage increase (%)
1999 (April)	3.60	22 and over	n/a	n/a
2000	3.70	22 and over	0.10	2.8
2001	4.10	22 and over	0.40	10.8
2002	4.20	22 and over	0.10	2.4
2003	4.50	22 and over	0.30	7.1
2004	4.85	22 and over	0.35	7.8
2005	5.05	22 and over	0.20	4.1
2006	5.35	22 and over	0.30	5.9
2007	5.52	22 and over	0.17	3.2
2008	5.73	22 and over	0.21	3.8
2009	5.80	22 and over	0.07	1.2
2010	5.93	21 and over	0.13	2.2
2011	6.08	21 and over	0.15	2.5
2012	6.19	21 and over	0.11	1.8
2013	6.31	21 and over	0.12	1.9
2014	6.50	21 and over	0.19	3.0
2015	6.70	21 and over	0.20	3.0
2016 (NLW, April)	7.20	25 and over	0.50 (0.70 year-on-year)	7.5 (10.8)
2020 (forecast, April)*	9.16*	25 and over	0.49 average over 4 years*	6.2 average over 4 years*

Source: LPC calculations based on: ASHE 2010 methodology, ASHE 2015, standard weights, including those not on adult rates of pay, UK; OBR average hourly earnings growth forecasts, November 2015.

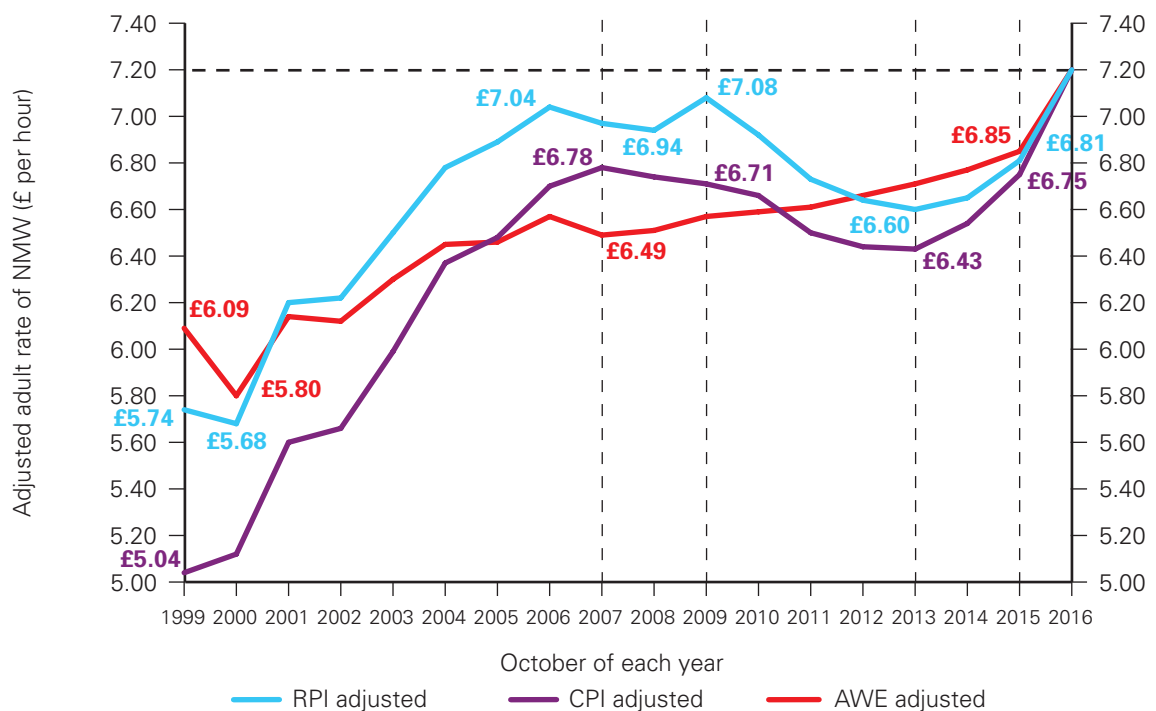
Note: *indicative only. Set to vary in light of new earnings data, revisions to earnings forecasts, and LPC recommendations.

2.61 But pay increases reported in nominal terms are likely to be misleading, because their true scale depends on trends in wider pay and inflation. And the comparison above has not adjusted for the change in the age group to which the NLW applies. So we need to consider the NLW in both real and relative terms.

2.62 Chapter 1 showed that over the course of the recession, the adult rate of the minimum wage reached its highest ever value relative to average earnings but – along with earnings for other workers – fell in real value, as LPC recommendations sought to avoid pricing workers out of employment. In the last two years, there has been a substantial restoration of its real value as the value of our recommendations exceeded inflation. Indeed, the increase in October 2015 had nearly restored the value of the minimum wage in CPI terms at 2015 prices – it was just 3 pence below the level achieved in October 2007.

2.63 Figure 2.1 shows how the NLW could change this picture. The increase in the minimum wage in April 2016 for those aged 25 and over is sufficient to more than restore the real value of the minimum wage for this group of workers. The increase to £7.20 takes the value of the NLW to 42 pence or more than 6 per cent above its previous peak – £6.78 in 2007 (in 2016 prices). The increase in April 2016 also restores its real value in RPI terms at 2016 prices. The real value of the NMW fell by nearly 7 per cent in RPI terms between 2009 and 2013, falling from £7.08 to £6.60 in 2016. Between October 2015 and April 2016, the real RPI value of the minimum wage will have increased by around 5.7 per cent from £6.81 to £7.20. Over this period, it will also increase by 5 per cent in relative terms, from £6.85 to £7.20.

Figure 2.1: Real and Relative Value of the National Minimum Wage/National Living Wage, UK, 1999-2016



Source: LPC estimates based on ONS data: AEI including bonuses (LNMQ), 1999, AWE total pay (KAB9), 2000-15, CPI (D7BT), 1999-2015, and RPI (CHAW), 1999-2015, monthly; and nominal GDP (YBHA), 1999-2015, quarterly, seasonally adjusted (AWE, AEI and GDP only), UK (GB for AWE and AEI); and OBR average hourly earnings growth forecasts, November 2015. 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-October 2015.

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- 2.64** We can extend this analysis to the forecast trajectory of the NLW to 2020. The implied increases in the real and relative values of the NLW (in 2016 prices) are substantial – increasing by 12.5 per cent to £8.10 in RPI terms; increasing by 18 per cent to £8.50 in CPI terms; and increasing by 9 per cent to £7.85 in average weekly earnings (AWE) terms.
- 2.65** These increases have implications for workers, who are set to gain significantly, if the forecasts are borne out. The increases are largest for those currently earning the NMW – for a typical minimum wage worker (who works an average of 26.2 hours a week), the increase from £6.70 to £7.20 equates to a nominal increase of just over £680 a year in gross pay, and the increase from £6.70 to £9.16 equates to a nominal increase of around £3,360 in annual gross pay. Taking into account forecast levels of inflation, the analogous real increases in annual gross pay are just under £550 for the increase to £7.20 an hour, and around £2,280 for the increase to £9.16 an hour. By taking account of forecasts for average earnings growth, we can estimate the increase in pay above what workers otherwise would have received if their earnings increased by the growth in average earnings. It is estimated a typical minimum wage worker will receive an additional £340 for the increase to £7.20, and about £1,175 for the increase to £9.16, relative to what they would have earned through forecast average earnings growth.
- 2.66** Workers who are currently earning between the current NMW and the proposed NLW will also see an increase in their gross income as their hourly wage is lifted, but these increases will be lower than for those workers currently on the NMW. It should also be noted that these estimates are in terms of a worker's gross pay. How this increase relates to increases in net household income will depend on many factors, such as household composition, and the tax and benefit system.
- 2.67** The value of the NLW also has implications for the LPC's traditional measures of NMW impact: the bite; coverage; and wage bills, which we turn to next.

Bite

- 2.68** Table 2.3 considers the bite for workers aged 25 and over. It shows that the bite was 51.7 per cent in April 2014 and that it increased to 52.5 per cent in April 2015. It also shows that the bite is expected to increase to 55.1 per cent in October 2016 and then to reach 60.0 per cent in 2020. The bite that informed the OBR's initial analysis in July 2015, is given for comparison and generally paints a similar picture.
- 2.69** This increase in bite is significant, and rapid, relative to trends in the past. The NMW was introduced in April 1999 at £3.60 an hour, around 45.6 per cent of median hourly earnings for those aged 25 and over at that time. It then increased in October 2000 to £3.70 an hour (when the bite was estimated to be about 45.5 per cent) and has subsequently increased in each October since then. Figure 2.2 gives three series for the trend over time for workers aged 25 and over with the bite measured in April, October, and at the mid-year point.⁴ It shows that the

⁴ As the data are collected in April, we have tended to make comparisons over time in April but going forwards, as discussed briefly above, we will make these comparisons at the mid-point of the minimum wage year. Because the data will still only be collected in April this will require us to either wait for the following April in order to calculate the median in October (as a mid-point between the two April data sets) or make an assumption about earnings growth. Figure 2.2 is based on out-turn data where available and forecasts where not.

bite increased from 45.3 per cent at the introduction of the NMW in 1999 to 52.5 per cent in 2015. It is then estimated to rise to 55.1 in 2016 and reach 60 per cent by 2020.

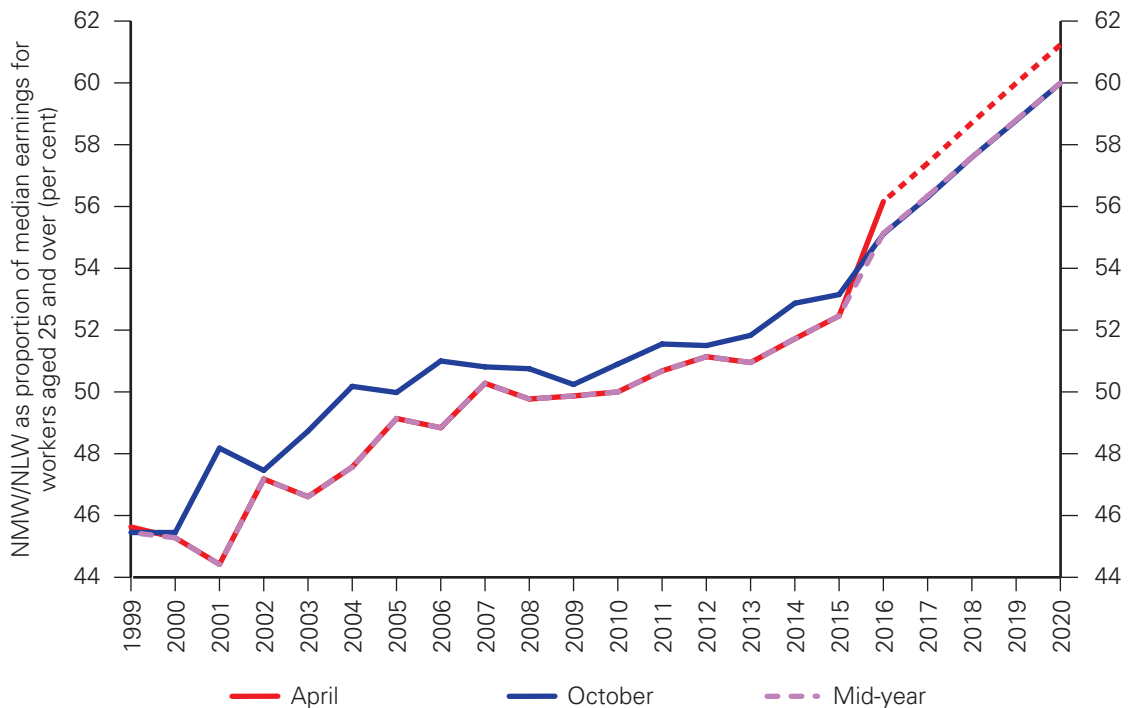
Table 2.3: Bite of the National Minimum Wage/National Living Wage at the Median for Those Aged 25 and Over, UK, 2014-2020

	ASHE 2014 OBR July 2015		ASHE 2015 OBR November 2015	
	NMW/NLW (£)	Bite (%)	NMW/NLW (£)	Bite (%)
April 2014	6.31	51.7	6.31	51.7
October 2014	6.50	52.5	6.50	52.8
April 2015	6.50	52.3	6.50	52.5
October 2015	6.70	53.1	6.70	53.1
April 2016	7.20	55.9	7.20	56.2
October 2016	7.20	54.8	7.20	55.1
April 2020	9.35	61.4	9.16	61.2
October 2020	9.35	60.0	9.16*	60.0

Source: Implied 'bite' path in the OBR Economic and Fiscal Outlook July 2015 using 2014 ASHE and OBR average hourly earnings growth forecasts, July 2015; compared with latest LPC estimates of implied 'bite' path using ASHE 2015 and OBR average hourly earnings growth forecasts, November 2015.

Note: *indicative only. Set to vary in view of out-turn and forecasts of average earnings, and LPC recommendations.

Figure 2.2: Increases in the Bite of the National Minimum Wage/National Living Wage for Workers Aged 25 and Over, UK, 1999-2015



Source: LPC estimates of earnings using adjustments based on ONS data: ASHE without supplementary information, April 2000-04; ASHE with supplementary information, April 2004-06; ASHE 2007 methodology, April 2006-11; and ASHE 2010 methodology, April 2011-April 2015, standard weights, including those not on adult rates of pay, UK; and OBR average hourly earnings growth forecasts, November 2015.

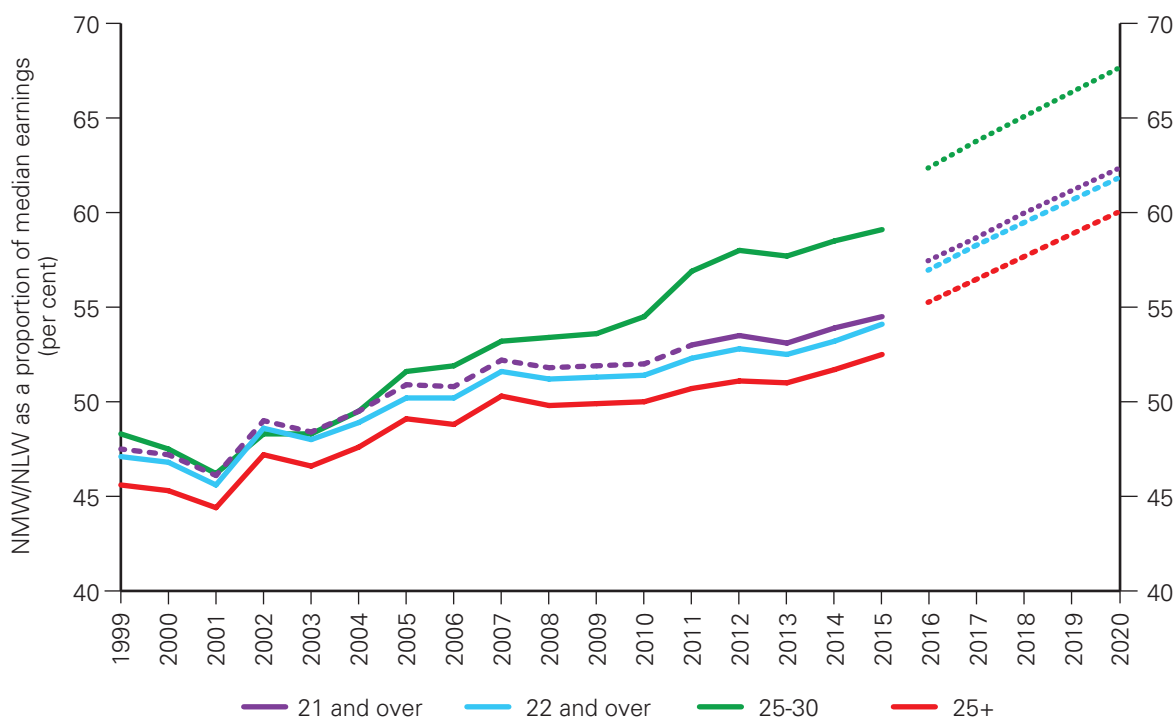
Notes:

- a. Data include apprentices for all years. It is not possible to identify apprentices prior to 2013.
- b. Implied straight line 'bite' path 2016-2020.

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- 2.70** Overall, the increase in the bite between 2015 and 2020 for workers aged 25 and over is a similar percentage point increase to that experienced since the introduction of the NMW increase – but over 5 years rather than 16 years. In other words, it is set to increase three times as quickly.
- 2.71** Figure 2.3 puts the bite into a historical perspective by comparing the bite for those aged 25 and over with the bites for those aged 22 and over (those covered by the NMW up to October 2010) and those aged 21 and over (those covered by the NMW since October 2010). It shows that the bite is higher for younger workers and, across all groups, followed broadly similar patterns between 1999 and 2015. But for 25-30 year olds, the bite increased more rapidly from the mid-2000s: the minimum wage increased in relative value sharply for this group in reflection of stagnating median pay.
- 2.72** Looking at the period 2016-2020, it is important to note that the goal for the NLW to reach the value of 60 per cent of the median earnings of workers aged 25 and over in fact equates to a bite for all adult workers that is somewhat higher. As we have shown in previous reports, workers subject to the existing youth rates – those aged under 21 – have lower pay and bites against their respective minimum wages of over 70 per cent. For those aged 21-24 years old, the adult rate of the minimum wage is also more than 70 per cent of median earnings.

Figure 2.3: Bite of the Adult Rate of the National Minimum Wage/National Living Wage, UK, 1999-2020

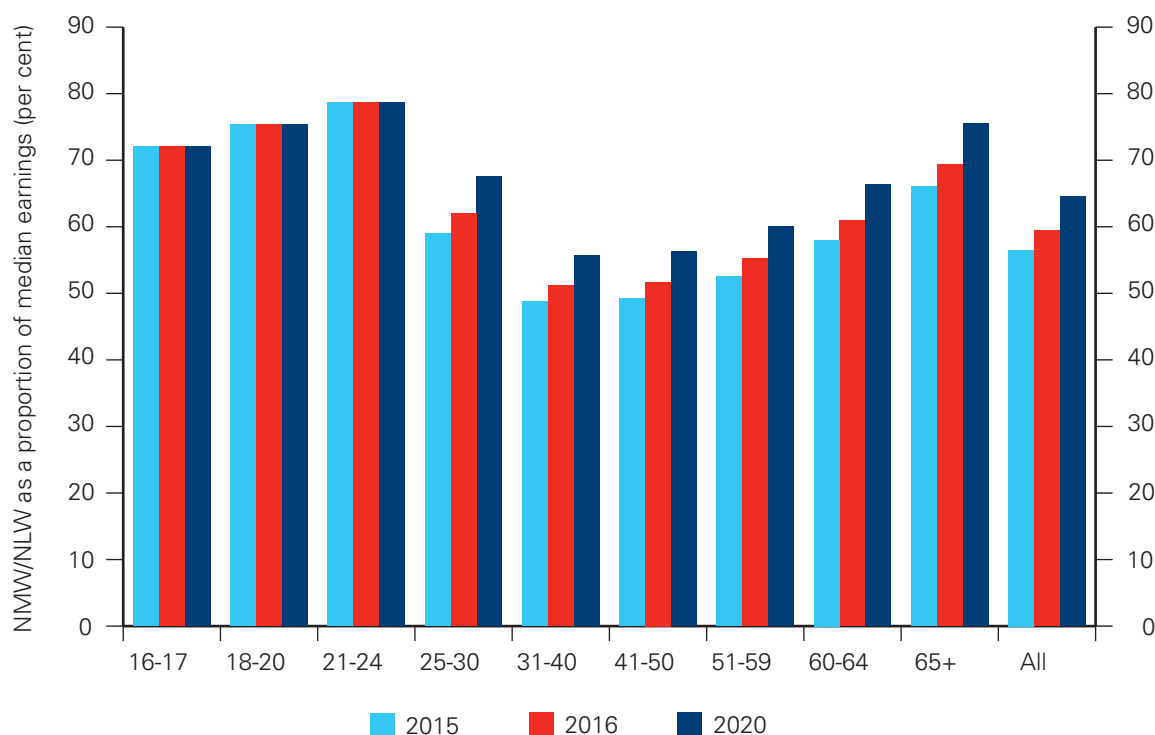


Source: LPC estimates of earnings using adjustments based on: ASHE without supplementary information, April 2000-04; ASHE with supplementary information, April 2004-06; ASHE 2007 methodology, April 2006-11; and ASHE 2010 methodology, April 2011-April 2015, standard weights, including those not on adult rates of pay, UK; OBR average hourly earnings growth forecasts, November 2015. Notes:

- Data include apprentices for all years. It is not possible to identify apprentices prior to 2013.
- We have projected the bites for 2016-2020 on the assumption of a (hypothetical) straight line bite path, measuring the NLW as a proportion of median wages for all workers. For 21 year olds and over and 22 year olds and over, we have not corrected here for the age structure of the minimum wage so these lines are likely to be a slight overestimate.

- 2.73** Measured by taking a weighted average of the bites for different groups, we estimate it will rise to 61.9 per cent for workers aged 18 and above by 2020, up from 54.8 per cent in 2014. The weighted average bite would be somewhat above this level if the minimum wages for those aged under 25 increase in value faster than average earnings. We discuss this issue further below in the context of international comparisons.
- 2.74** Figure 2.4 shows the changing profile of the bite by age, with those aged 25-30 and 60 and over set both to gain and to be exposed to any stresses arising from the higher pay floor. The NLW increases the level of the bite compared with the NMW across all age groups for those aged 25 and over, albeit the pattern – which is u-shaped, reflecting lower earnings for older and younger workers – remains unchanged.
- 2.75** In 2015, the bite was highest for the youngest age groups, in consequence of their lower average earnings. Excluding first year apprentices, it ranged from 72.1 per cent for 16-17 year olds to 78.7 per cent for those aged 21-24.
- 2.76** For 25-30 year olds the bite is estimated to increase from 59.1 per cent in 2015 to 62.1 per cent in 2016 and to 67.6 per cent by 2020. As Figure 2.3 has already suggested, this comes on top of significant previous increases. Between 2003 and 2015, the bite for this age group increased by over 10 percentage points, from 48.3 per cent to 59.1 per cent, compared with an 8.5 percentage point increase for workers aged 21 and over.
- 2.77** Of the age groups aged 25 and over, those aged 65 and over had the highest bite in 2015 (66.1 per cent) with those aged 60-64 (58 per cent) (and 25-30 year olds) also having higher bites than the other three 'prime working age' age groups – the lowest being for those aged 31-40 (48.8 per cent). The £7.20 introductory rate of the NLW in 2016 is set to increase the bite for all those aged 25 and over. The estimated bite for those aged 65 and over rises to 69.4 per cent and increases above 60 per cent for those aged 25-30 and 61-64. For those aged 51-59, it rises to 55.2 per cent and to around 51 per cent for 31-50 year olds. By 2020, the estimated bite is also estimated to reach 60.0 per cent for 51-59 year olds and to have risen above 75 per cent for those aged 65 and over and be around 66-67 per cent for 25-30 year olds and 60-64 year olds. It is estimated to be about 56 per cent for 31-50 year olds.

Figure 2.4: Bite of the National Minimum Wage/National Living Wage, by Age, UK, 2015-2020

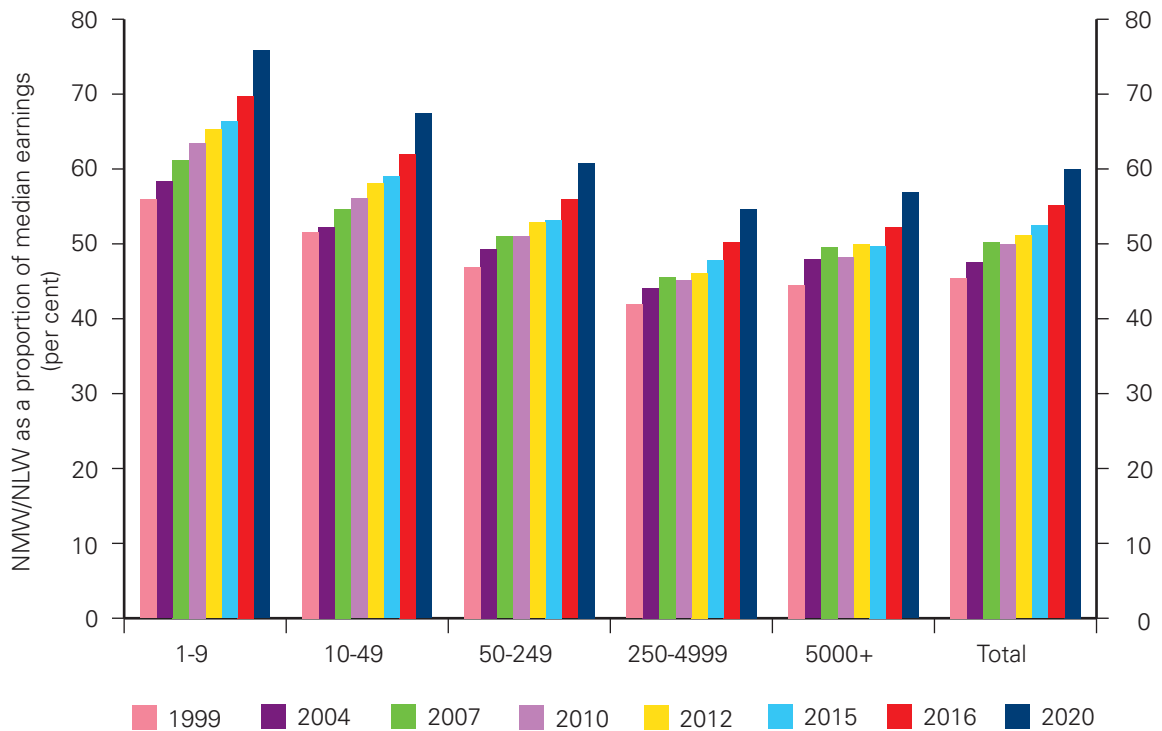


Source: LPC estimates of earnings using adjustments based on: ASHE without supplementary information, April 2000-04; ASHE with supplementary information, April 2004-06; ASHE 2007 methodology, April 2006-11; and ASHE 2010 methodology, April 2011-April 2015, standard weights, including those not on adult rates of pay, UK; OBR average hourly earnings growth forecasts, November 2015. Note: Data exclude Year One Apprentices for all years.

2.78 The bite for workers aged 25 and over also varies by the size of firm, with the NLW set to increase it across large and small businesses. As Chapter 1 and successive LPC reports have set out, the smallest firms generally have the lowest average wages, so already command the highest bite. Indeed, in 2015 the bite for workers aged 25 and over was already above 60 per cent for micro firms (those with fewer than 10 employees) – 66.4 per cent – and was close to it for other small firms (those with 10-49 employees). Figure 2.5 shows that the introduction of the NLW is set to increase the bite for micro firms for workers aged 25 and over to around 69.7 per cent in 2016 and then to about 75.9 per cent by 2020, with the bite for other small firms for those aged 25 and over rising to 67.4 per cent. For comparison, when the NMW was introduced the bite for micro firms was 55.9 per cent for those aged 25 and over.

2.79 Among larger firms, the bite for those with 250–4,999 employees is also estimated to increase considerably, albeit to a lower level. Between 1999 and 2015, the bite for those aged 25 and over working in these large firms increased by 5.9 percentage points, from 41.9 per cent to 47.8 per cent. By 2020, the bite is set to have increased by a further 6.8 percentage points. For the very largest firms (those with 5,000 or more employees), the bite is estimated to increase from 49.7 per cent in 2015 to 56.9 per cent in 2020, which will be slightly larger (7.2) than the percentage point increase from 1999 to 2015 (5.2).

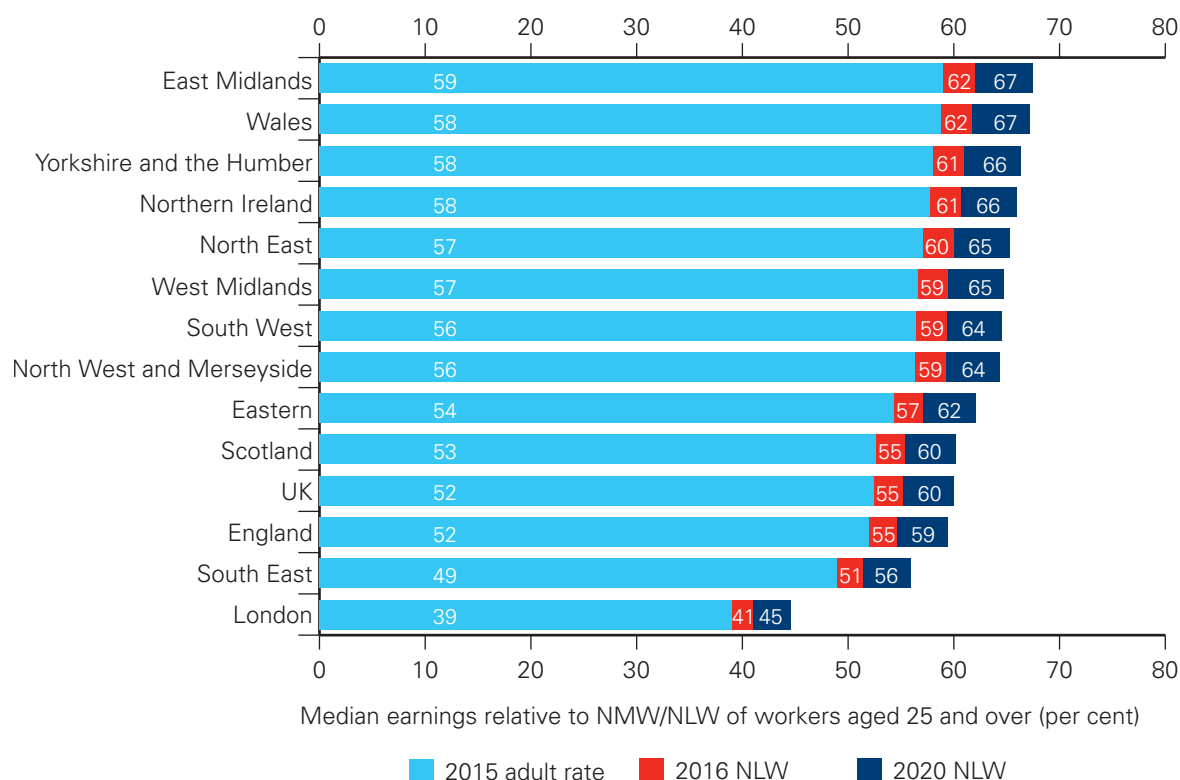
Figure 2.5: Bite of the Adult Rate of the National Minimum Wage/National Living Wage for Workers Aged 25 and Over, by Size of Firm, UK, 1999-2020



Source: LPC estimates of earnings using adjustments based on: ASHE without supplementary information, April 2000-04; ASHE with supplementary information, April 2004-06; ASHE 2007 methodology, April 2006-11; and ASHE 2010 methodology, April 2011-April 2015, standard weights, including those not on adult rates of pay, UK; OBR average hourly earnings growth forecasts, November 2015. Note: Data exclude Year One Apprentices for all years. It is not possible to identify apprentices prior to 2013.

2.80 The impact of the NLW will also vary by country and region, as shown in Figure 2.6. The bite in the UK as a whole is set to increase for workers aged 25 and over from 52.4 per cent in 2015 to 60.0 per cent by 2020. The introduction of the NLW in 2016 will see the bite increase to 55.1 per cent in the UK, though remaining just below in England (54.6 per cent) and slightly above in Scotland (55.3 per cent). However, median wages are much lower in Wales and Northern Ireland, so the bite in both of those countries is already set to be higher than the 2020 target of 60 per cent in 2016 – 61.7 per cent and 60.7 per cent respectively. There is set to be considerable variation across the English regions – with the bite set to range from 41.0 per cent in London to 62.0 per cent in the East Midlands. Another two regions – the North East (60.0 per cent), and Yorkshire and the Humber (61.0 per cent) – are set to reach 60 per cent in 2016, with three other regions above 59 per cent – the North West and Merseyside (59.2 per cent), the South West (59.3 per cent) and the West Midlands (59.5 per cent). Only London (41.0 per cent) and the South East (51.4 per cent) are set to have bites lower than the UK average.

Figure 2.6: Bite of the Adult Rate of the National Minimum Wage/National Living Wage for Workers Aged 25 and Over, by Country and Region, UK, 2015-2020



Source: LPC estimates of earnings using: ASHE 2010 methodology, April 2015, standard weights, including those not on adult rates of pay, UK. OBR average hourly earnings growth forecasts, November 2015.

Note: Data exclude Year One Apprentices for all years. It is not possible to identify apprentices prior to 2013.

2.81 By 2020, when the bite reaches 60 per cent in the UK, the bites in England (59.4) and Scotland (60.2) are set to be at a similar level – reflecting the fact that their median wages are in line with the UK average. The bites for Northern Ireland and Wales however are set to increase to around 66-67 per cent. Again, there is also considerable variation across the English regions with only London (44.6) and the South East (55.9) set to have bites lower than the UK average by 2020. By contrast the highest bite is estimated to be in the East Midlands (67.5) although Yorkshire and the Humber (66.3) and the North East (65.3) are also set to have high bites. Three other regions – the South West, the North West and Merseyside, and the West Midlands – are also set to have bites at around 64-65 per cent.

2.82 Geographical variations sometimes lead to discussion of the case for regional minimum wages. It should be noted however that variations in the bite are generally greater within nations and regions than between them. There are areas of Wales, the East Midlands and Yorkshire and the Humber with much lower bites than suggested by the regional average. In Derby in the East Midlands, for example, the bite in 2015 for workers aged 25 and over was 42.9 per cent rising to an estimated 49.1 per cent by 2020 – well below the average for the East Midlands. By contrast, in London – which has a low average bite – at least four boroughs have a bite for workers aged 25 and over above the UK average. The bite in Harrow, for example, was 56.9 per cent in 2015 for workers aged 25 and over and is set to rise to an estimated 65.5 per cent by 2020. In Scotland, which also has a relatively low

average bite, the bite in East Renfrewshire is set to rise from 65.5 per cent for workers aged 25 and over in 2015 to an estimated 74.8 per cent in 2020.

- 2.83** Of particular interest to the LPC, given our focus on employment risks, is the variation in the bite by occupation and industry. Table 2.4 shows that across the low-paying occupations as a whole, the bite for those aged 25 and over is set to increase from its current level of 82.6 per cent (in April 2015), to 86.8 per cent by 2016, and to 94.4 per cent by 2020. The increase across non low-paying occupations is smaller with the bite rising from 43.8 per cent in 2015, to 46.1 per cent in 2016, and to an estimated 50.1 per cent in 2020.
- 2.84** There is also variation among the low-paying sector occupations – with the bite currently ranging from 71.7 per cent in transport to 90.0 per cent in cleaning. By 2020, the bite is set to have increased by over 10 percentage points in all low-paying sector occupations with the largest increases of more than 12 percentage points in retail, hairdressing, food processing, and childcare. In both cleaning and hospitality, the bite could reach 100 per cent by 2020. That means more than half the workforce aged 25 and over in those sectors is estimated then to have a job that pays the NLW. In the low-paying sectors currently with the lowest bite, transport, non-food processing, and agriculture, the bite is set to increase to more than 80 per cent.
- 2.85** There is a similar picture using our definition of low-paying sector industries, albeit with the bite generally slightly lower as this low-paying sector definition includes managerial and supervisory jobs, which are usually more highly paid. The exception is cleaning, which has a higher bite (lower median earnings) using the industry definition, probably due to in-house cleaners being paid more than those outsourced to cleaning companies. Overall, as shown in Table 2.4, the bite of the NLW at the median for the low-paying industries as a whole is set to increase from 78.6 per cent in 2015, to 82.6 per cent in 2016, and to 89.8 per cent in 2020, with a slower increase for those in the non low-paying sectors, up from 46.0 per cent in 2015, to 48.4 per cent in 2016, and to 52.6 per cent in 2020. Among the low-paying sector industries, the bite in each is also set to increase by around 10 percentage points. It reaches 100 per cent in cleaning and close to that (99.1 per cent) in hospitality.

Table 2.4: Bite of the Adult Rate of the National Minimum Wage/National Living Wage for Workers Aged 25 and Over, by Sector, UK, 2015-2020

Bite (NMW/NLW as percentage of median)	Industry (%)			Occupation (%)		
	Sector	2015	2016	2020	2015	2016
Cleaning	92.5	97.2	100.0	90.0	94.6	100.0
Hospitality	86.7	91.1	99.1	89.7	94.2	100.0
Retail	77.4	81.3	88.5	86.3	90.7	98.7
Hairdressing	85.3	89.6	97.5	85.8	90.1	98.0
Food processing	71.5	75.1	81.7	85.2	89.5	97.4
Childcare	82.9	87.1	94.8	84.7	89.0	96.9
Social care	78.6	82.6	89.8	80.1	84.2	91.6
Textiles	71.6	75.2	81.8	78.4	82.4	89.6
Storage	-	-	-	75.9	79.8	86.8
Office Work	-	-	-	74.3	78.1	84.9
Leisure	70.3	73.9	80.4	74.0	77.8	84.6
Agriculture	72.2	75.9	82.6	72.6	76.3	83.0
Non-food processing	-	-	-	72.2	75.9	82.6
Transport	-	-	-	71.7	75.3	81.9
Employment agencies	68.4	71.9	78.2	-	-	-
Low-paying sectors	78.6	82.6	89.8	82.6	86.8	94.4
Non Low-paying sectors	46.0	48.4	52.6	43.8	46.1	50.1
Total	52.5	55.1	60.0	52.5	55.1	60.0

Source: LPC estimates of earnings using: ASHE 2010 methodology, April 2015, standard weights, including those not on adult rates of pay, UK; OBR average hourly earnings growth forecasts, November 2015.

Note: Data exclude Year One Apprentices.

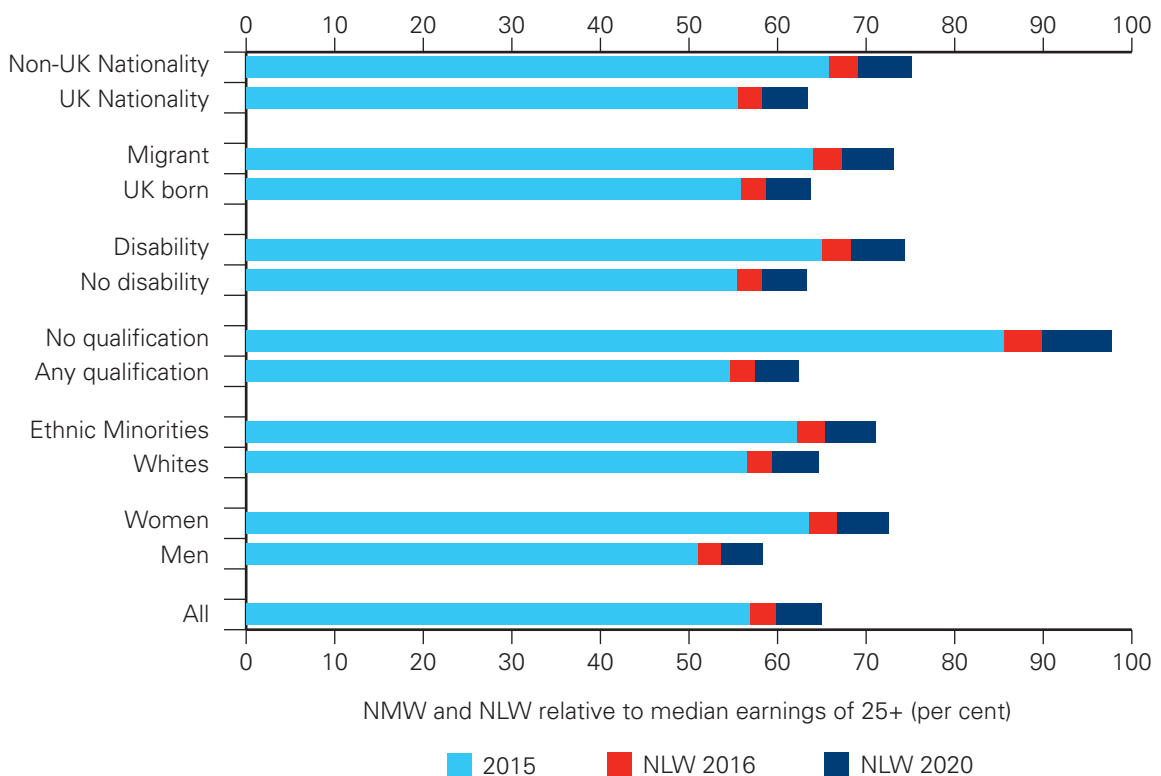
2.86 As well as modelling its impact on occupations and industries, we also track the bite of the NLW by personal characteristic. Although the ONS recommends using ASHE data for earnings analysis, this is not possible when considering many personal characteristics because they are not covered by the ASHE survey (apart from age and gender). So the analysis of these groups here draws on Labour Force Survey (LFS) data, in which pay and hours data are self-reported and therefore less reliable than ASHE. Among other effects, this tends to result in lower pay and higher bite and coverage estimates.⁵ For example, the bite for all workers aged 25 and over was estimated to be around 57 per cent using LFS data in 2015, increasing to 65 per cent in 2020, whereas ASHE data suggest that the bite for the same age group will increase from 52 per cent in 2015 to 60 per cent in 2020. Nonetheless, the LFS data remain the best available guide for impacts on groups of workers.

⁵ Different survey methodologies and coverage have led to estimates of hourly earnings derived from LFS being lower than those based on ASHE, resulting in much higher LFS estimates of bite and coverage. In this analysis, we have used an imputation approach developed by the Office for National Statistics to reduce differences in estimates derived from these two surveys, though resulting LFS estimates still differ from those using ASHE, albeit to a lesser extent.

2.87 The level and increase of the bite will differ by groups of workers, particularly for those who are more likely to be affected by the minimum wage. As we have shown in successive Commission reports, these groups include people with no qualifications, disabled people, migrant workers, some ethnic minorities and women.

2.88 Figure 2.7 shows the bites for all of these groups were higher than for workers aged 25 and over as a whole in 2015 – they were all already over 60 per cent, and this pattern is set to continue to 2020. Workers with no qualifications already have a bite of 86 per cent compared with a bite of 55 per cent for workers with any qualifications. This is estimated to increase to 90 per cent in 2016, and to 98 per cent in 2020 – such that almost half of workers with no qualifications aged 25 and over could be on the NLW by 2020. The bite for workers with any qualification is estimated to increase to 57 per cent in 2016, and to 62 per cent in 2020.

Figure 2.7: Bite of the Adult Rate of the National Minimum Wage/National Living Wage for Workers Aged 25 and Over, by Group of Workers, UK, 2015-2020



Source: LPC estimates of earnings based on: LFS Microdata, income weights, quarterly, not seasonally adjusted, four-quarter averages, UK, Q3 2014-Q2 2015; OBR average hourly earnings growth forecasts, November 2015.

Notes:

1. Data include all apprentices.
2. The 2020 NLW rate used was £9.15 (as derived from the 2015 ASHE and OBR average hourly earnings growth forecasts, November 2015).

2.89 By contrast, the bite for ethnic minorities aged 25 and over was the lowest of these groups at 62 per cent in 2015. While it is estimated to remain the lowest of the groups we consider, it is estimated to rise to 65 per cent in 2016, and to 71 per cent by 2020. The bite for 'White' workers is estimated to increase from 57 per cent in 2015, to 59 per cent in 2016, and then to 65 per cent in 2020.

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2.90 In 2015 the bite for male workers is 51 per cent, compared with a bite for female workers of 64 per cent. These rise to 54 per cent and 67 per cent respectively in 2016, and then to 58 per cent and 73 per cent in 2020. The bite for disabled workers is set to increase by 9 percentage points to 74 per cent in 2020, compared with an increase for non-disabled workers of 8 percentage points to 63 per cent. The bite of migrant workers is set to increase by 9 percentage points to 75 per cent in 2020, while the bite for UK-born workers increases by 8 percentage points to 64 per cent.

Summary of the Impact on the Bite

2.91 In summary, the introduction of the NLW for employees aged 25 and over at £7.20 in April 2016 will increase the bite for this group from 52.1 per cent in 2015 to an estimated 55.1 per cent in 2016, and the bite is set subsequently to increase to 60 per cent of the median by 2020. The percentage point increase in the bite of the minimum wage for those aged 25 and over is estimated to be greater over the five years 2015-2020 than it was in the previous 16 years. The increased bite is likely to vary substantially across age groups, regions, industry, occupation and firm size. The increase is likely to be higher for: those who are aged 25-30 or over 60; those working in Wales, Northern Ireland and outside the South East of England; those working in low-paying occupations and sectors; and those working in small firms.

Coverage

2.92 As well as increasing the bite, the changes also have implications for our second key indicator of NMW impact: the coverage of minimum wages in the UK. To correct for data inaccuracy and capture those fractionally above the specific rate, whose pay is nonetheless being driven by the minimum wage, we define coverage as being paid within 5 pence of the minimum wage level. On this basis, Table 2.5 shows that, in April 2015, there were just under 1 million employees aged 25 and over paid at or below the NMW. In addition around a quarter of a million employees aged 21-24 were also paid at or below the NMW. A further 160,000 employees aged 16-20 were covered by their respective youth rates. In total therefore, around 1.4 million employees (or 5.2 per cent of all employees) were on one of the age-appropriate minimum wage rates in April 2015.

2.93 Following the introduction of the NLW, coverage for workers aged 25 and over is estimated to increase to 1.8 million workers in 2016 and nearly 3.3 million workers by 2020. As noted earlier these estimates are subject to significant uncertainties related to changes in the wage distribution and population. Unlike most other published estimates, we seek to include minimum wage coverage for workers aged under 25. As with the bite analysis above, we have assumed for the purposes of illustration that levels of the other rates, including the remaining adult rate for workers aged 21-24, increase in line with average earnings, so coverage of those younger age groups remains at its 2015 level.

2.94 Overall, we estimate that a total of 2.2 million employees will be in minimum wage jobs in 2016 – or around 8.2 per cent of all jobs – rising to 3.7 million employees in minimum wage jobs in 2020 – or about 13.7 per cent of all jobs. This includes an estimated 407,000 workers covered by the youth rates and the NMW (for those aged 21-24).

2.95 As well as those paid at the NMW, increasing the minimum wage may affect those people who earn above this level – since, to maintain differentials between different workers, employers may increase the wages of those above the NMW when the minimum wage goes up. Previous research, such as Butcher (2005) and Butcher, Dickens and Manning (2012) has indicated that these spillover effects of previous NMW increases extend up the earnings distribution to around the 25th percentile. If this is borne out through increases in the NLW, we estimate that the pay of up to 6 million workers may be affected by the NLW by 2020. This is similar to estimates by the OBR (2015b and 2015c), D’Arcy and Corlett (2015) and D’Arcy, Corlett and Gardiner (2015).

Table 2.5: Coverage of the Adult Rate of the National Minimum Wage/National Living Wage, UK, 2015-2020

	2015		2016		2020	
	000s	%	000s	%	000s	%
25 and over	996	4.2	1,785	7.6	3,278	13.9
21-24	248	12.5	248	12.5	248	12.5
18-20	126	12.6	159	12.6	159	12.6
16-17	33	11.1	33	11.1	33	11.1
All	1,404	5.2	2,192	8.2	3,685	13.7

Source: LPC estimates of earnings using: ASHE 2010 methodology, April 2015, low-pay weights, including those not on adult rates of pay, UK; and OBR average hourly earnings growth forecasts, November 2015.

Note: Data exclude Year One apprentices; we have not adjusted for population growth to 2020.

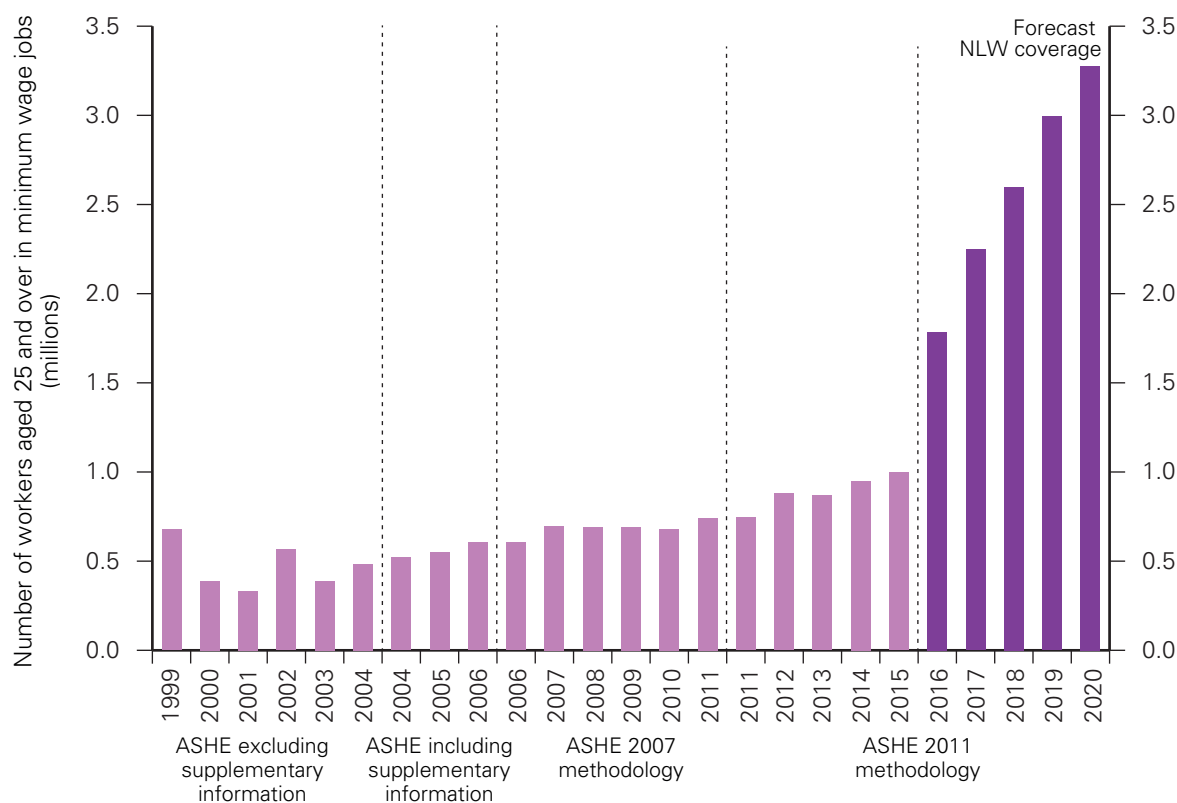
2.96 Our estimates suggest that, unsurprisingly, workers aged 25 and over are set to become increasingly important in relation to the effects of the minimum wage. First, the proportion of jobs covered by the minimum wage could be greater for those aged 25 and over (13.9 per cent) than for the other age groups (under 13 per cent). This is in contrast to the coverage observed in previous reports under the NMW, which has been proportionately higher for younger workers.

2.97 Second, those aged 25 and over are set to become a much bigger share of all minimum wage workers. Where those aged 25 and over accounted for 71 per cent of those in minimum wage jobs in April 2015, this proportion is set to rise to over 81 per cent in 2016 and could reach 89 per cent by 2020. For comparison, the proportion of workers aged 25 and over as a percentage of all minimum wage jobs was as low as 65 per cent in 2011, falling from 81 per cent on introduction in 1999 with the extension of the adult rate to include 21 year olds and as youth rates had kept pace with the adult rate of the NMW. Following the more cautious increases in the youth rates between 2011 and 2014, that proportion of 25 year olds increased to 71 per cent by 2015. A further 17.7 per cent of minimum wage jobs were held by 21-24 year olds. So, around 89 per cent of minimum wage jobs were regulated by the adult rate of the NMW with the remaining 11 per cent regulated by the youth rates. By 2020, the NLW is set to account for a similar proportion of minimum wage coverage as the adult rate did in 2015.

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2.98 The increase in coverage among those aged 25 and over is shown in detail in Figure 2.8. Coverage for this age group was around 0.7 million (or 3.1 per cent) when the NMW was introduced in 1999. It then fell to reach a low of just 0.3 million (or 1.8 per cent) in 2001, prior to the large uprating in October of that year, before returning to its initial level by 2007. It then remained fairly stable during the recession before significantly increasing between 2012 and 2015 as the LPC recommended increases in the adult rate that raised its value relative to average earnings. By 2015, coverage for workers aged 25 and over had increased to about 1.0 million (or 4.2 per cent). The introduction of the NLW in April 2016 is expected to cover just under 1.8 million workers aged 25 or over (or 7.6 per cent) with nearly 3.3 million (or 13.9 per cent) covered by 2020. This would therefore be more than a threefold increase in just five years, 2015-2020. Between 2001 and 2015, coverage also trebled but it is difficult to make comparisons about the impact as the absolute level of coverage was much lower then.

Figure 2.8: Coverage of the Adult Rate of the National Minimum Wage/National Living Wage for Workers Aged 25 and Over, UK, 1999-2020

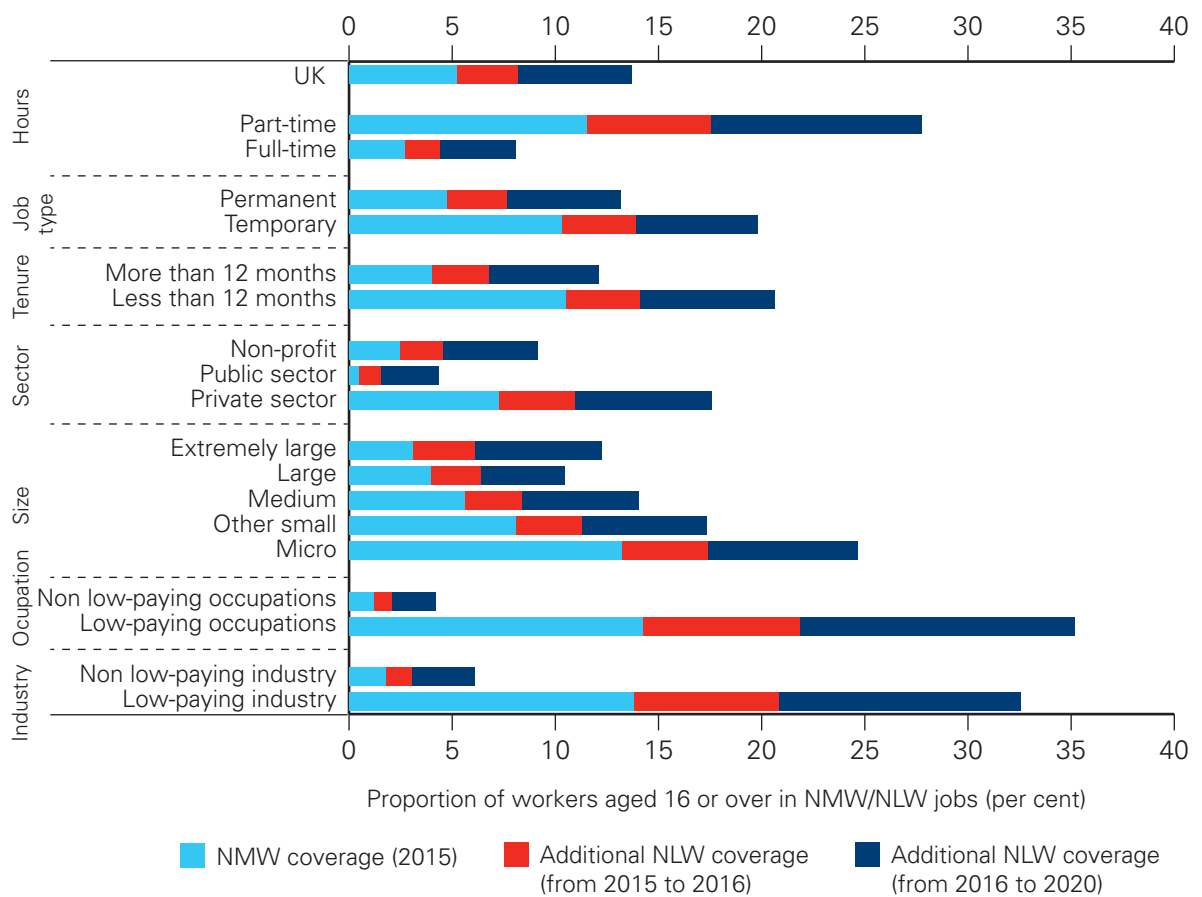


Source: LPC estimates of earnings using: ASHE, low-pay weights, including those not on adult rates of pay, UK, 1999-2015; and OBR average hourly earnings growth forecasts, November 2015.

Note: Data include apprentices for all years. It is not possible to identify apprentices prior to 2013.

2.99 As with the bite, coverage will vary by characteristic of the job and of the worker. We first look at those characteristics more associated with the job rather than the worker, investigating differences across age and other personal characteristics later in the chapter. Figure 2.9 shows that jobs that are part-time; temporary; of shorter duration; in small private sector firms; and in the low-paying sectors are more likely to be covered by the NLW than those that are full-time; permanent; of longer duration; in large firms; in the public sector; or in the non low-paying sectors. However, the proportionate increases in coverage between 2015 and 2020 are greater for the latter types of jobs. In the analysis that follows, we focus on both numbers and proportions, though for 2020 proportions are most relevant (we have not adjusted for population growth)

Figure 2.9: Coverage of the National Minimum Wage/National Living Wage for Workers Aged 16 and Over, by Job Characteristic, UK, 2015-2020



Source: LPC estimates of earnings using: ASHE 2010 methodology, April 2015, low-pay weights, including those not on adult rates of pay, UK; and OBR average hourly earnings growth forecasts, November 2015.

Note: Data exclude Year One apprentices.

2.100 Figure 2.9 and Table 2.6 show that the proportion of part-time jobs that are minimum wage jobs is estimated to increase from 11.5 per cent in 2015, to 17.5 per cent in 2016, ultimately accounting for just over a quarter of part-time jobs (27.8 per cent) by 2020. That compares with an increase from 2.7 per cent in 2015, to 4.4 per cent in 2016, and to 8.1 per cent of all full-time jobs by 2020. Just over 10 per cent of temporary jobs were minimum wage jobs in 2015. This is estimated to rise to nearly 14 per cent in 2016, and then to nearly one in five (19.8 per cent) by 2020. This compares with an increase from 4.7 per cent to 7.6 per cent in 2016, then to 13.2 per cent among permanent jobs by 2020.

Table 2.6: Coverage of the National Minimum Wage/National Living Wage, for Workers Aged 16 and Over, by Job Characteristic, UK, 2015-2020

	2015		2016		2020	
	Number of minimum wage jobs (000s)	Share of all workers in the sector on minimum wage (%)	Number of minimum wage jobs (000s)	Share of all workers in the sector on minimum wage (%)	Number of minimum wage jobs (000s)	Share of all workers in the sector on minimum wage (%)
All	1,404	5.2	2,192	8.2	3,685	13.7
Full-time	517	2.7	843	4.4	1,550	8.1
Part-time	887	11.5	1,350	17.5	2,136	27.7
Permanent	1,163	4.7	1,868	7.6	3,224	13.2
Temporary	224	10.3	303	13.9	431	19.8
More than 12 months	873	4.0	1,478	6.8	2,640	12.1
Less than 12 months	531	10.5	715	14.1	1,046	20.6
Private	1,315	7.3	1,986	11.0	3,191	17.6
Public	294	0.5	983	1.5	280	4.4
Non-profit	55	2.5	1,019	4.6	204	9.2
Micro	288	13.2	378	17.4	536	24.6
Other small	309	8.1	433	11.3	664	17.3
Medium	215	5.6	321	8.4	538	14.0
All Large	586	3.5	1,053	6.2	1,935	11.4
Large	305	3.9	495	6.4	813	10.5
Very large	281	3.1	559	6.1	1,122	12.2

Source: LPC estimates of earnings using: ASHE 2010 methodology, April 2015, low-pay weights, including those not on adult rates of pay, UK; and OBR average hourly earnings growth forecasts, November 2015.

Note: Data exclude Year One apprentices.

2.101 The duration of jobs is also important. Around 10.5 per cent of jobs that had been held for less than a year were minimum wage jobs in 2015. This is set to rise to around one in seven by 2016 (14.1 per cent), and to more than one in five (20.6 per cent) by 2020. For comparison, the proportion of jobs of longer duration that are minimum wage is estimated to see an increase from 4.0 per cent to 6.8 per cent between 2015 and 2016, and then to 12.1 per cent by 2020.

- 2.102** Figure 2.9 and Table 2.6 also show the sectoral impact of the NLW. In 2015, 7.3 per cent of private sector jobs were minimum wage jobs compared with 2.5 per cent in the non-profit sector and just 0.5 per cent in the public sector (although many low-paid jobs undertaken for the public sector have been outsourced to the private sector). These proportions are estimated to increase in 2016 to 11.0 per cent in the private sector, 1.5 per cent in the public sector, and 4.6 per cent in the non-profit sector. By 2020, the proportions are set to increase further. Around 17.6 per cent of private sector jobs are estimated to be minimum wage (3.2 million of the 18.1 million private sector jobs) – approaching 1 in 6 employee jobs. In contrast, only 4.4 per cent of jobs in the public sector (280,000 of 6.4 million) are set to be minimum wage ones by 2020, albeit this represents an almost tenfold increase on the 30,000 that were minimum wage jobs in 2015. About 9.2 per cent of non-profit sector jobs are set to be minimum wage jobs by 2020 (200,000 of 2.2 million), up from 2.5 per cent (55,000) in 2015.
- 2.103** Coverage of the minimum wage also varies by size of firm, with the smallest firms generally having higher proportional coverage than larger firms. Among micro firms (those with fewer than ten employees), the proportion of minimum wage jobs is set to increase from around 13.2 per cent (288,000) in 2015 to 17.4 per cent (378,000) in 2016, and to 24.6 per cent (536,000) in 2020. For other small firms (those with 10-49 employees), estimated coverage more than doubles between 2015 and 2020 – it increases from 8.1 per cent (309,000), to 11.3 per cent (664,000) in 2016, to around 17.3 per cent (664,000) in 2020. A similar pattern holds for medium-sized firms (those with 50-249 employees) – the estimated proportion of minimum wage jobs is set to increase from 5.6 per cent (215,000), to 8.4 per cent (321,000) in 2016 to 14.0 per cent (538,000) in 2020. For larger firms (those with 250 employees or more), the proportional increase in estimated coverage is greater – rising from 3.5 per cent (586,000) in 2015, to 6.2 per cent in 2016 (1.05 million) in 2016 and to 11.4 per cent (1.94 million) in 2020.
- 2.104** Another way of considering this change is that 42 per cent of minimum wage jobs were in large firms in 2015 but by 2020 this is set to rise to 52 per cent. Coverage in very large firms is set to rise particularly sharply: from 3.1 per cent (281,000) in 2015, to 6.1 per cent (559,000) in 2016, and to 12.2 per cent (1.12 million) by 2020. That compares with 3.9 per cent (305,000) in 2015, to 6.4 per cent (495,000) in 2016, and 10.5 per cent (813,000) in 2020 for other large firms.
- 2.105** Clearly the low-paying sectors, whether defined using industry or occupation, will have proportionately more minimum wage jobs than other sectors of the economy – they have been defined that way. However, Figure 2.9 and Table 2.7 show that minimum wage coverage among low-paying occupations is set to increase from 14.3 per cent in 2015 to 21.8 per cent in 2016 and to 35.2 per cent by 2020. That is similar to the estimated increase among low-paying industries (from 13.8 per cent in 2015, to 21.0 per cent in 2016 and to around 32.5 per cent by 2020). For other (non low-paying) industries and occupations, minimum wage coverage is estimated to rise to 3 per cent in 2016 and to 6.1 per cent by 2020 (industry), and to 2.1 per cent in 2016 and to 4.2 per cent by 2020 (occupation).

Table 2.7: Coverage of the National Minimum Wage/National Living Wage for Workers Aged 16 and Over, by Low-paying Occupation, UK, 2015-2020

Occupation sector	2015		2016		2020	
	Number of minimum wage jobs (000s)	Share of all workers in the sector on minimum wage (%)	Number of minimum wage jobs (000s)	Share of all workers in the sector on minimum wage (%)	Number of minimum wage jobs (000s)	Share of all workers in the sector on minimum wage (%)
Total	1,404	5.2	2,192	8.2	3,685	13.7
Non Low-paying sectors	225	1.2	386	2.1	774	4.2
Low-paying sectors	1,179	14.3	1,807	21.8	2,911	35.2
Retail	276	12.6	460	21.1	811	37.2
Hospitality	301	24.5	393	31.9	530	43.0
Cleaning	199	24.3	296	36.0	431	52.5
Social care	62	7.5	136	16.5	254	30.9
Storage	59	9.8	91	15.0	154	25.5
Food processing	60	16.6	94	26.0	151	41.8
Childcare	42	11.1	81	21.5	148	39.3
Transport	46	9.7	66	13.9	115	24.0
Office Work	30	6.8	45	10.3	85	19.5
Non-food processing	34	9.1	50	13.2	85	22.3
Leisure	22	9.0	34	13.7	50	20.0
Hairdressing	30	29.6	34	33.9	45	44.4
Agriculture	10	5.7	17	9.7	34	20.0
Textiles	7	12.9	11	18.7	18	32.1

Source: LPC estimates of earnings using ASHE 2010 methodology, April 2015, low-pay weights, including those not on adult rates of pay, UK; and OBR average hourly earnings growth forecasts, November 2015.

Note: Data exclude Year One apprentices.

2.106 As previously when considering the bite, we now go on to look at these sectors in more detail. Table 2.7 sets out the break-down for different occupations. We focus here on the alternative measure using industry definitions (the ONS provides better estimates of employment by industry than by occupation – although these cover all jobs in those industries rather than just low-paid workers). On this basis, Table 2.8 shows that around 1.1 million minimum wage jobs were in low-paying industries in 2015 (13.8 per cent of those jobs) with 334,000 in other industries (about 1.7 per cent of those jobs). The introduction of the NLW is estimated to increase minimum wage coverage to 1.6 million in the low-paying industries (21.0 per cent) and 578,000 in other industries although that will still only be 3.0 per cent of all jobs in those industries. By 2020, nearly a third of jobs (32.5 per cent) in the low-paying industries are estimated to be minimum wage (2.5 million) compared with around 1.2 million jobs (6.1 per cent) in other industries.

Table 2.8: Coverage of the National Minimum Wage/National Living Wage for Workers Aged 16 and Over, by Low-paying Industry, UK, 2015-2020

Industry	2015		2016		2020	
	Number of minimum wage jobs (000s)	Share of all workers in the sector on minimum wage (%)	Number of minimum wage jobs (000s)	Share of all workers in the sector on minimum wage (%)	Number of minimum wage jobs (000s)	Share of all workers in the sector on minimum wage (%)
Total	1,404	5.2	2,192	8.2	3,685	13.7
Non low-paying sectors	334	1.7	578	3.0	1,166	6.1
Low-paying sectors	1,070	13.8	1,614	21.0	2,519	32.5
Retail	300	10.0	511	17.1	925	30.9
Hospitality	353	24.6	447	31.1	579	40.3
Social care	84	8.3	182	18.0	322	31.8
Employment agencies	95	14.0	123	18.1	164	24.2
Cleaning	88	30.5	118	40.8	159	55.2
Food processing	28	7.3	57	14.6	105	26.9
Leisure	43	10.0	66	15.4	92	21.5
Childcare	27	12.7	46	21.7	76	35.7
Hairdressing	31	29.7	35	33.7	46	44.6
Agriculture	11	8.1	16	12.0	29	22.0
Textiles	10	14.3	14	20.6	22	31.4

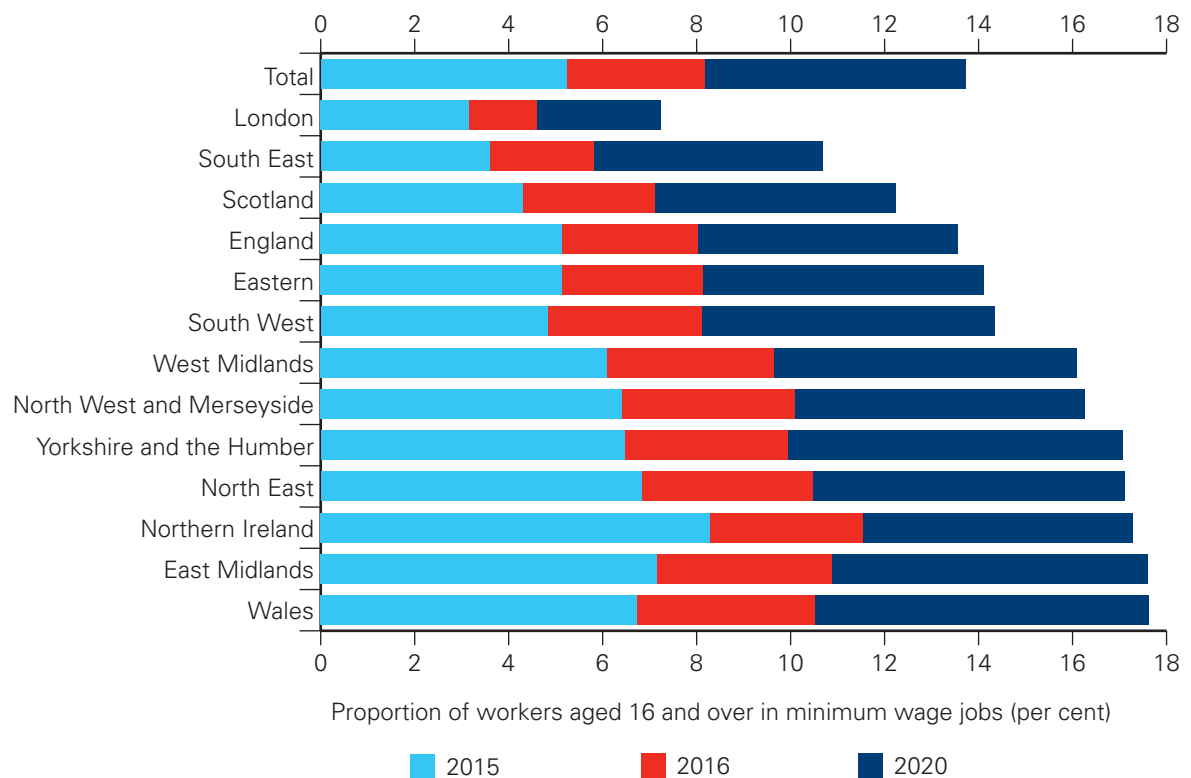
Source: LPC estimates of earnings using: ASHE 2010 methodology, April 2015, low-pay weights, including those not on adult rates of pay, UK; and OBR average hourly earnings growth forecasts, November 2015.

Note: Data exclude Year One apprentices.

- 2.107** In 2015, hospitality had the largest number of minimum wage jobs (353,000) with retail a close second (300,000). Together, these two industries accounted for 46.5 per cent of all minimum wage jobs (and 61 per cent in the low-paying industries). All of the other low-paying industries had fewer than 100,000 minimum wage jobs each although employment agencies (95,000), cleaning (88,000) and social care (84,000) had more than 50,000. In three industries, a quarter or more of jobs were paid at the minimum wage comprising cleaning (30.5 per cent), hairdressing (29.5 per cent) and hospitality (24.6 per cent).
- 2.108** The introduction of the NLW in 2016 is set to increase both the numbers and coverage of the minimum wage across industries. Retail is estimated to become the industry with the largest number of minimum wage jobs (511,000) overtaking hospitality (447,000). Together, they are set to account for about 44 per cent of minimum wage jobs (and 59 per cent of those in the low-paying industries) – so slightly down. The estimated numbers increase above 100,000 in social care (182,000), employment agencies (123,000) and cleaning (118,000). In the latter, that is 40.8 per cent of all jobs in cleaning. The proportions are around a third in hairdressing (33.7 per cent) and hospitality (31.1 per cent).

- 2.109** By 2020, the estimated coverage is set to increase again. Around 30.9 per cent of jobs in retail are set to be minimum wage jobs (about 925,000) and 40.3 per cent in hospitality (about 579,000). Although the two industries will then account for only 41 per cent of all minimum wage jobs – slightly lower than in 2016 – they are estimated still to account for around 60 per cent of those in the low-paying industries. Those in social care are set to have increased to 13 per cent of all minimum wage jobs in the low-paying industries (322,000), up from 8 per cent in 2015. These estimates suggest that there will be around 100,000 or more minimum wage jobs in employment agencies (164,000), cleaning (159,000), food processing (105,000) and leisure (92,000). Those minimum wage jobs in cleaning are set to account for 55.2 per cent of all jobs in that industry. That proportion is higher than in any other industry – hairdressing (44.6 per cent) and hospitality (40.3 per cent) are the next highest. Again however, even though nearly half of jobs in hairdressing are set to be paid at the minimum wage, absolute numbers reflect the size of the industry (that is still fewer than 50,000 jobs).
- 2.110** What about coverage by geography? As previously observed in this chapter in relation to the bite, there are significant differences in the impact of the minimum wage across the regions and countries of the UK. Figure 2.10 demonstrates that coverage of the minimum wage for workers aged 16 and over in England (5.1 per cent) in 2015 was similar to that in the UK as a whole (5.2 per cent). In Wales (6.7 per cent) and Northern Ireland (8.3 per cent), it was higher – albeit it was lower in Scotland (4.3 per cent). Despite that, nearly 1.2 million minimum wage jobs were in England with only 100,000 in Scotland, 79,000 in Wales and 67,000 in Northern Ireland – reflecting the wider population distribution across the UK. Figure 2.10 also shows that there were variations across regions in England with a definite north west/south east divide – the midlands and the north having higher coverage than the Eastern, the South East, the South West and London regions. Coverage in the south eastern regions of England ranged from 3.2 per cent in London to 5.1 per cent in the Eastern region. The regions with the largest number of minimum wage jobs were the North West, which had 184,000, and the West Midlands, with 140,000. However, around 500,000 minimum wage jobs were in the south eastern half of England, compared with 665,000 in the north western half.
- 2.111** The introduction of the NLW in 2016 does not change the pattern much but looks set to increase the magnitude of the coverage, from 5.2 to 8.2 per cent for the UK. England's estimated coverage (8.0 per cent) is similar to that of the UK with Scotland lower (7.1 per cent) and Wales (10.5 percent) and Northern Ireland (11.5 per cent) higher. The majority of minimum wage jobs are still set to be located in England – 1.8 million of the 2.2 million. The East Midlands (10.9 per cent) and the North East (10.5 per cent) have the highest estimated proportional coverage in England, with the North West (289,000) and West Midlands (220,000) still having the highest numbers. The proportion of minimum wage jobs located in south eastern England is set to increase from 42.6 per cent to 43.1 per cent in 2016 – that is 781,000 out of a total of 1.8 million minimum wage jobs in England.

Figure 2.10: Coverage of the National Minimum Wage/National Living Wage for Workers Aged 16 and Over, by Country and Region, UK, 2015-2020



Source: LPC estimates of earnings using: ASHE 2010 methodology, April 2015, low-pay weights, including those not on adult rates of pay, UK; and OBR average hourly earnings growth forecasts, November 2015.
 Note: Data exclude Year One apprentices.

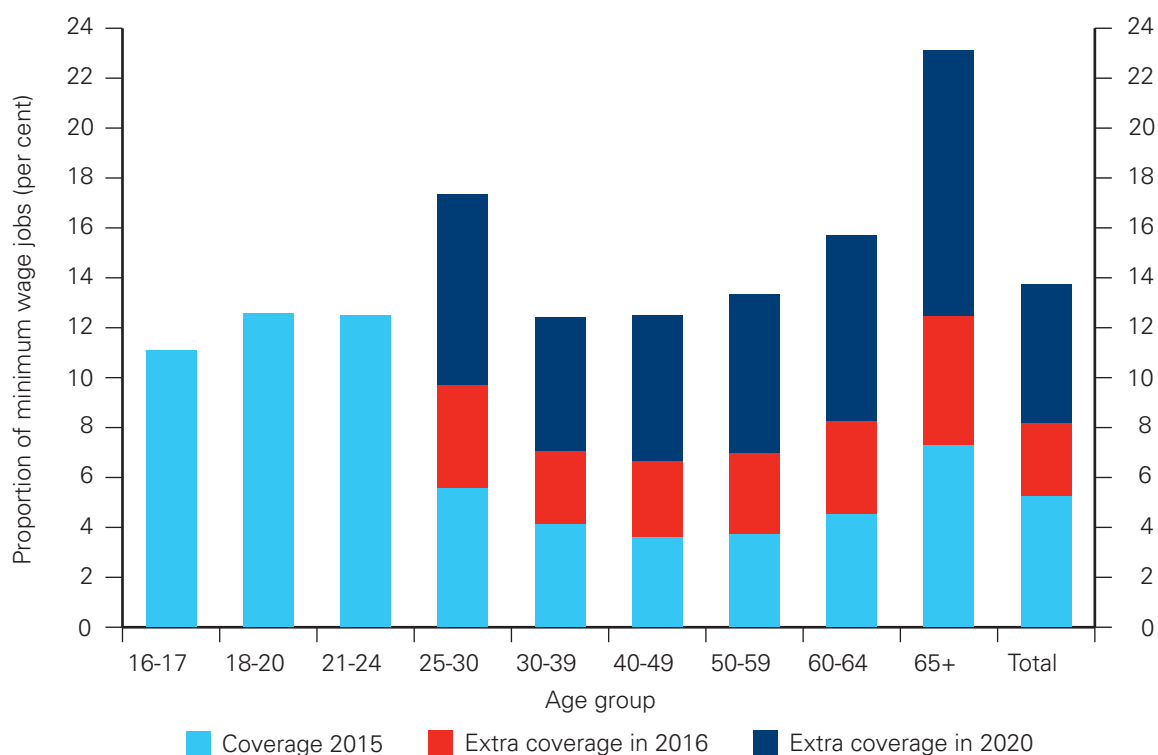
- 2.112** By 2020, minimum wage coverage in England (13.8 per cent) is again set to be similar to the UK as a whole (13.7 per cent) with Scotland (12.2 per cent) lower and the other two countries being much higher. But Wales (17.6 per cent) is set to have higher coverage than Northern Ireland (17.3 per cent), reversing the ordering upon introduction of the NLW. Our estimates suggest that England could have 3.1 million minimum wage jobs by 2020 with 283,000 in Scotland, 206,000 in Wales and 139,000 in Northern Ireland.
- 2.113** By 2020, three English regions are set to have minimum wage coverage greater than one in six workers – East Midlands (17.6 per cent), North East (17.1 per cent) and Yorkshire and the Humber (17.1 per cent). In contrast to 2015 and 2016, estimates for the South West (14.3 per cent) and the Eastern region (14.1 per cent) suggest these regions will have coverage above the UK average (13.7 per cent) leaving only the South East (10.7 per cent) and London (7.2 per cent) as English regions below that average.
- 2.114** On these estimates, the region with the largest number of minimum wage workers is still set to be the North West (466,000) but the South East (392,000) will be second ahead of the West Midlands (368,000) and Yorkshire and Humber (364,000). The proportion of minimum wage jobs located in the south eastern half of England is set to increase to 44.3 per cent – 1.35 million compared with 1.7 million in the north western half.
- 2.115** Similar to the geographical variation in the bite, there are substantial differences in coverage within regions, as well as between them.

National Minimum Wage

2.116 We now turn to look at the characteristics of minimum wage workers, starting with coverage by age. As shown in Table 2.5, coverage as a proportion of all jobs was higher for those aged under 25 (around 12.5 per cent) than for those aged 25 and over in 2015 (around 4.2 per cent) but that by 2020 this may change (depending on what happens to the rates for workers aged under 25), with estimated coverage increasing to 13.9 per cent for those aged 25 and over. Figure 2.11 shows how that coverage changes across different age groups for those aged 25 and over, demonstrating the same u-shape pattern seen earlier with the bite. It is apparent that those aged 65 and over had the highest coverage in 2015 (7.3 per cent) with those aged 25-30 the next highest (5.6 per cent) and those aged 41-50 having the lowest coverage (3.6 per cent).

2.117 The introduction of the NLW in 2016 is set to increase coverage across all of these age groups with that for those aged 65 and over rising to similar levels as the youth groups (12.4 per cent). Estimated coverage rises to nearly 10 per cent for those aged 25-30 and is lowest for those aged 41-50 (6.7 per cent). By 2020, coverage for all these age groups is set to be as high as for the youth groups currently – around 12.5 per cent for those aged 31-50. Our estimates suggest it will be noticeably higher for those aged 65 and over (23.1 per cent), those aged 25-30 (17.3 per cent) and those aged 60-64 (15.7 per cent).

Figure 2.11: Coverage of the National Minimum Wage/National Living Wage, by Age, UK, 2015-2020

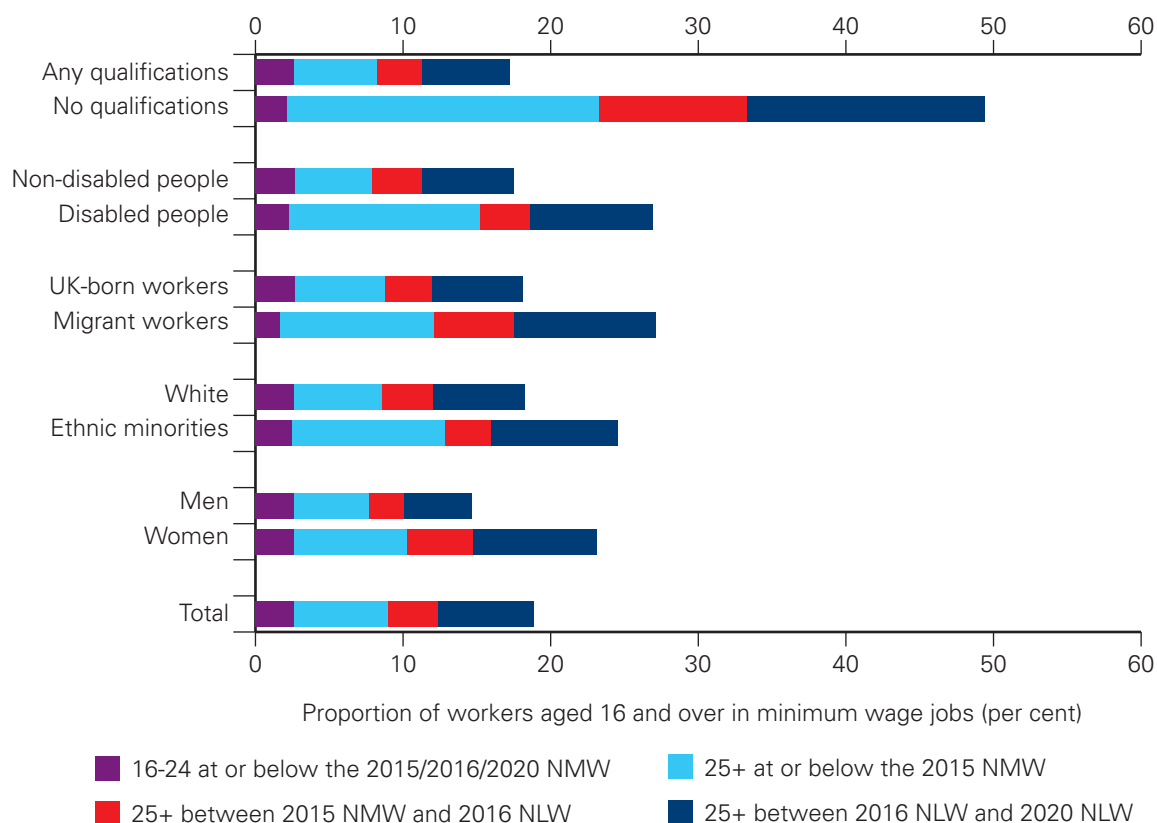


Source: LPC estimates of earnings using: ASHE 2010 methodology, April 2015, low-pay weights, including those not on adult rates of pay, UK; and OBR average hourly earnings growth forecasts, November 2015.

Note: Data exclude Year One apprentices.

- 2.118** It should be noted that although the coverage proportions varied considerably by age in 2015, the actual numbers covered were similar across many of the reported age groups. These included: around 250,000 employees aged 31-40; 245,000 aged 41-50; 240,000 aged 51-60; 210,000 aged 25-30; and 250,000 aged 21-24. The number of 18-20 year olds covered by the NMW was half of this – 125,000. Despite having the highest coverage proportion, there were only 50,000 workers aged 65 or over in minimum wage jobs. For completeness, there were around 30,000 employees in minimum wage jobs aged 16-17.
- 2.119** As the numbers covered by minimum wages increase towards 2020, more workers are set to be included in those age groups with the lowest coverage proportions – 850,000 workers aged 41-50; 750,000 workers aged 31-40; and 860,000 51-64 year olds. There will also be an estimated 650,000 minimum wage workers aged 25-30 and 150,000 aged 65 or over. So, in terms of share of minimum wage workers, a growing majority may become prime age workers (aged between 30 and 60) towards 2020.
- 2.120** Similar to different ages and job characteristics, minimum wage coverage also varies greatly by characteristic of the worker. This analysis of groups of workers draws on data from the LFS, which – as noted above – tends to underestimate hourly pay even after allowing for adjustments. Thus, LFS estimates of coverage tend to be higher than those from ASHE: 9 per cent of jobs recorded by the LFS were minimum wage jobs, compared with 5 per cent in ASHE in 2015. While again it remains the best source for considering groups of workers, the precise level should be treated with caution. However, we believe that the relativities are reasonably measured.
- 2.121** Figure 2.12 shows that higher proportions of workers with no qualifications, disabled workers, migrant workers, ethnic minorities and female workers were in minimum wage jobs than the total workforce in 2015, with the same groups likely to be affected by the introduction and subsequent uprating of the NLW. In 2015, around a quarter of workers with no qualifications (23 per cent) were in a minimum wage job compared with 8 per cent of those with any qualifications. This coverage for workers with no qualifications is set to increase to a third in 2016, and to almost half (49 per cent) in 2020. This compares with an increase to 11 per cent in 2016 and to 17 per cent in 2020 of workers with any qualifications.
- 2.122** Other groups of workers do not have similarly high coverage but some see similar proportionate to increases. According to the LFS data, around 10 per cent of female workers were in minimum wage jobs in 2015. This is set to rise to 15 per cent in 2016, and more than double to 23 per cent in 2020. Coverage for male workers increases at a slightly slower rate, at almost 8 per cent in 2015, increasing to 10 per cent in 2016 and to almost 15 per cent by 2020.
- 2.123** The proportion of disabled workers paid at or below the minimum wage is set to double by 2020 – from 12 per cent in 2015, to 17.5 per cent in 2016, and to reach an estimated 27 per cent in 2020. The coverage of non-disabled workers is also set to double but at a slightly lower rate – increasing from 9 per cent in 2015, to 12 per cent in 2016, and to 18 per cent in 2020.

Figure 2.12: Coverage of the National Minimum Wage/National Living Wage for Workers Aged 16 and Over, by Group of Workers, UK, 2015-2020



Source: LPC estimates based on: LFS Microdata, income weights, quarterly, not seasonally adjusted, UK, Q2 2015; OBR average hourly earnings growth forecasts, November 2015.
 Note: Includes all apprentices.

2.124 The coverage of ethnic minorities and migrant workers is set to increase, but at a slightly slower rate than for ‘White’ and UK-born workers. In 2015, around 15 per cent of migrant workers were in a minimum wage job compared with 8 per cent of UK-born workers. By 2016, it is estimated that almost 19 per cent of migrant workers will be in minimum wage jobs compared with just over 11 per cent of UK-born workers. By 2020 this proportion is estimated to be almost 27 per cent for migrant workers, compared with 17.5 per cent of UK-born workers. Almost 13 per cent of workers from an ethnic minority were in minimum wage jobs in 2015, estimated to increase to 16 per cent in 2016 and to almost 25 per cent in 2020, though there are significant differences between groups. Of ‘White’ workers, almost 9 per cent were in minimum wage jobs in 2015, and this is estimated to rise to 12 per cent in 2016 and over 18 per cent in 2020.

Summary of the Impact on Coverage

2.125 Overall, the story of the impact of the NLW on coverage of workers is similar to that of the bite, with estimated proportions of workers on one of the minimum wage rates set to rise from 5.2 per cent (1.4 million) in 2015 to 8.2 per cent (2.2 million) in 2016 and then to 13.7 per cent (3.7 million) in 2020. The increased coverage is likely to vary across age groups, regions, industry, occupation and firm size. In 2016, an estimated 11 per cent of private sector jobs, 17 per cent of jobs in micro firms, 18 per cent of part-time jobs, 41 per cent of

jobs in cleaning, 31 per cent of jobs in hospitality and 34 per cent of jobs in hairdressing are set to be minimum wage jobs. By 2020, an estimated 18 per cent of private sector jobs, 25 per cent of jobs in micro firms, 28 per cent of part-time jobs, 55 per cent of jobs in cleaning, 45 per cent of jobs in hairdressing, 40 per cent of jobs in hospitality and 36 per cent in childcare are set to be minimum wage jobs. Coverage is set to rise to more than one in six jobs in Yorkshire and the Humber, the North East, Northern Ireland, the East Midlands and Wales by 2020. Coverage also increases for workers aged 25-30 and 65 and above, and for workers with no qualifications, those with disabilities, migrant workers, female workers and ethnic minorities.

Impact of the National Living Wage on Wage Bills

- 2.126** As well as bite and coverage, a third measure of the potential impact of changes in the minimum wage is the effect on wage bills in the whole economy and in the low-paying sectors. As with the indicators considered above, the analysis is sensitive to the underlying assumptions. We seek to identify the additional wage cost above what would have happened in the absence of the NLW – we have assumed that pay generally increases in line with average earnings growth, and have reported these costs in 2015 prices.
- 2.127** A further assumption concerns spillover effects – given that gains for workers and costs for firms relate not just to higher pay for minimum wage workers but any changes employers made to ensure better-paid staff preserve differentials. Drawing on available research into the scale of these in the past in relation to the NMW, we assume that any spillover effects are on average around 20 per cent of the relative wage rise for those paid at the NLW, implying some squeezing of differentials. These effects are assumed to linearly diminish to zero when reaching the 25th percentile of the whole earnings distribution. OBR (2015b) used a similar methodology for modelling spillover effects in its analysis.
- 2.128** A third assumption concerns effects on workers aged under 25. For the purposes of simplicity we focus here on workers aged 25 and over only. The costs will be higher if workers aged 21-24 also receive the NLW.
- 2.129** Table 2.9 shows that in 2016, when the NLW (£7.20) is introduced, the total extra wage cost for workers aged 25 and over is projected to be around £0.7 billion or an increase of 0.1 per cent in the wage bill for the whole economy compared with October 2015. This is in line with the estimates produced by the Bank of England (2015a). The extra wage cost for directly affected workers (those earning less than the equivalent of £7.20 an hour) is estimated to be around £0.5 billion with the remaining £0.2 billion accounted for by those indirectly benefiting from spillover effects of the NLW. Overall, these estimates are similar in magnitude to those produced by the Government in its Regulatory Impact Assessment (BIS, 2015j).

Table 2.9: Extra Wage Costs of the National Minimum Wage/National Living Wage for Workers Aged 25 and Over, UK, 2015-2020

Cost: £million		Total extra cost	%	Direct extra cost	Indirect cost due to spillover effect
2015 Q4	Cost of raising the rate from £6.50 to £6.70	412	0.1	343	69
2016 Q4	Cost of raising the rate from £6.50 to £7.20	1,084	0.2	823	261
	of which:				
2016 Q4	Cost of raising the rate from £6.70 to £7.20	672	0.1	481	191
2020 Q4	Cost of raising the rate from £6.50 to £9.16	3,498	0.5	2,957	541
	of which:				
2020 Q4	Cost of raising the rate from £6.70 to £9.16	3,086	0.5	2,614	472
2020 Q4	Cost of raising the rate from £7.20 to £9.16	2,414	0.4	2,134	280

Source: LPC estimates based on: ASHE 2010 methodology, April 2015, low-pay weights, including those not on adult rates of pay, UK; and OBR average hourly earnings growth forecasts, November 2015.

Note: Estimates exclude Year One apprentices who are not eligible for the NLW.

2.130 Table 2.9 also shows that, on similar assumptions, raising the minimum wage for workers aged 25 and over from £6.70 in 2016 to £9.16 in 2020 will lead to an estimated total extra wage cost of just over £3 billion or 0.5 per cent, of which £2.6 billion is the estimated direct cost and the remaining £0.5 billion due to spillover effects.

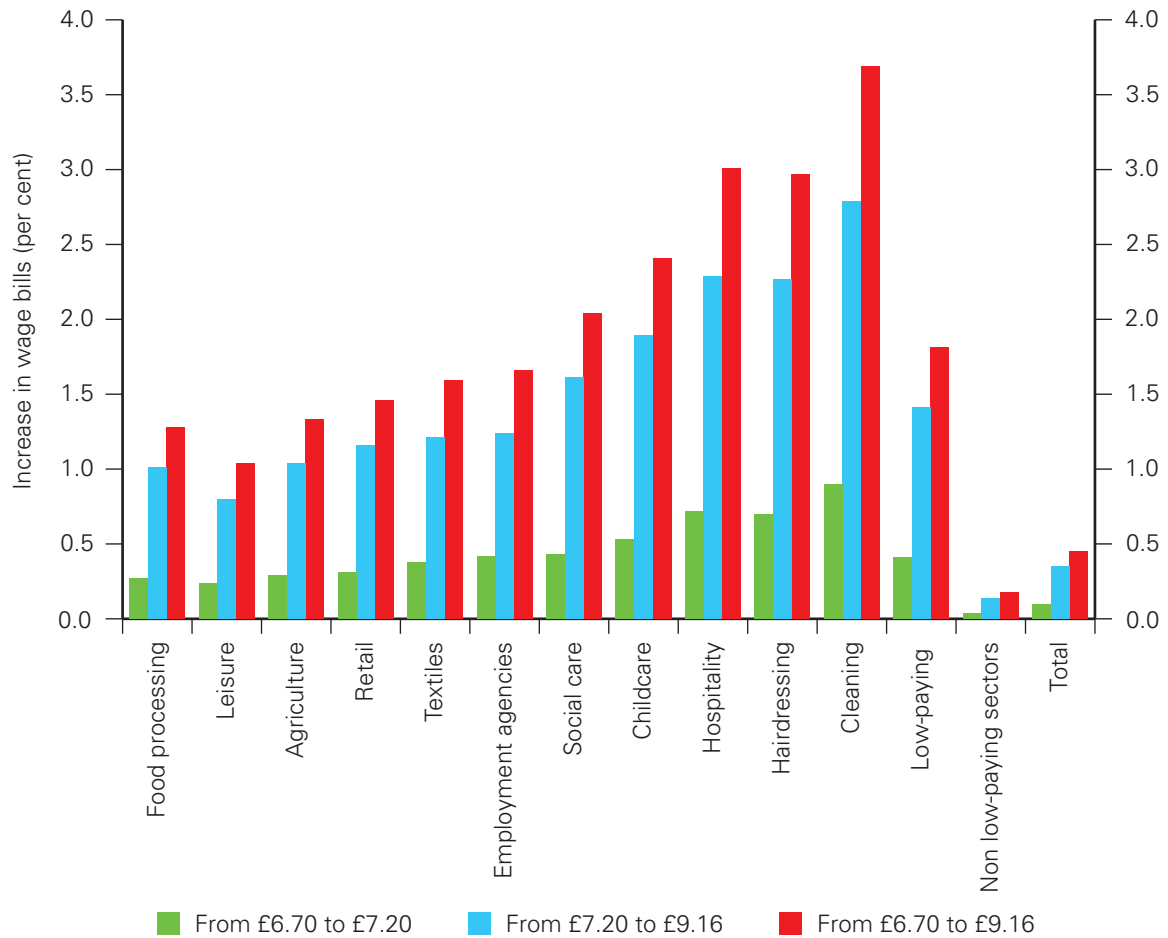
2.131 These estimates are similar in magnitude to those previously calculated by the OBR (2015b), which estimated a total of £3.25 billion by 2020, and the Institute for Fiscal Studies, which estimated £4.5 billion (its higher figure partly reflects the fact that it used the Labour Force Survey, whose lower measures of earnings lead to estimates of a higher impact of the NLW).

2.132 Considering that, in combination with previous increases in the adult rate of the NMW, the NLW involves an increase in the minimum wage of over 40 per cent between 2015 and 2020, the impact of the NLW measured via wage bill costs appears lower than measured by bite or coverage. However, it should be noted these offer an incomplete account of the overall picture. As noted above, these are marginal costs – on top of the wage costs involved in the counterfactual of forecast average earnings growth. Further, they relate to workers aged 25 and over only. They do not include associated non-wage costs – for example, National Insurance contributions and the Apprenticeship Levy – or other employment costs like pensions auto-enrolment. They do not account for savings from other Government policies introduced at the same time such as changes to Corporation Tax. In addition, the impact will vary significantly by sector. It is likely that low-paying sectors will face higher percentage increases in their wage bills than non low-paying sectors.

2.133 Figure 2.13 shows estimated extra wage costs arising from the minimum wage for workers aged 25 and over broken down by low-paying sector. It illustrates that the increase in wage costs of the National Living Wage – raising the minimum wage from £6.70 in 2016 to £9.16 in 2020 in the low-paying sectors – range from 1.0 per cent in leisure to 3.7 per cent in cleaning, with a 1.8 per cent increase across the low-paying sectors as a whole. This compares with 0.5 per cent in the whole economy and 0.2 per cent in the non low-paying sectors as a whole. Estimates of wage costs incurred by the NMW/NLW upratings in 2015 and 2016

show a similar pattern. The largest percentage increase in wage bills – in cleaning and hospitality – is consistent with the previous findings on bites and coverage, which show these two sectors as likely to record the highest bites and highest shares of NLW workers across the low-paying sectors. Although wage costs in hairdressing are estimated to increase by 3 per cent, due to the size of the sector the actual increase in cost is less than £30 million, compared with nearly £450 million in hospitality. It should be noted that these estimates are likely significantly to understate the costs to social care, as industry data suggest that ASHE data may not be representative of this sector.

Figure 2.13: Extra Wage Costs of the National Living Wage for Workers Aged 25 and Over, by Sector, UK, 2015-2020



Source: LPC estimates based on: ASHE 2010 methodology, April 2015, low-pay weights, including those not on adult rates of pay, UK; OBR average hourly earnings growth forecasts, November 2015.
 Note: Estimates exclude Year One apprentices who are not eligible for the NLW.

Summary of the Impact on Wage Bills

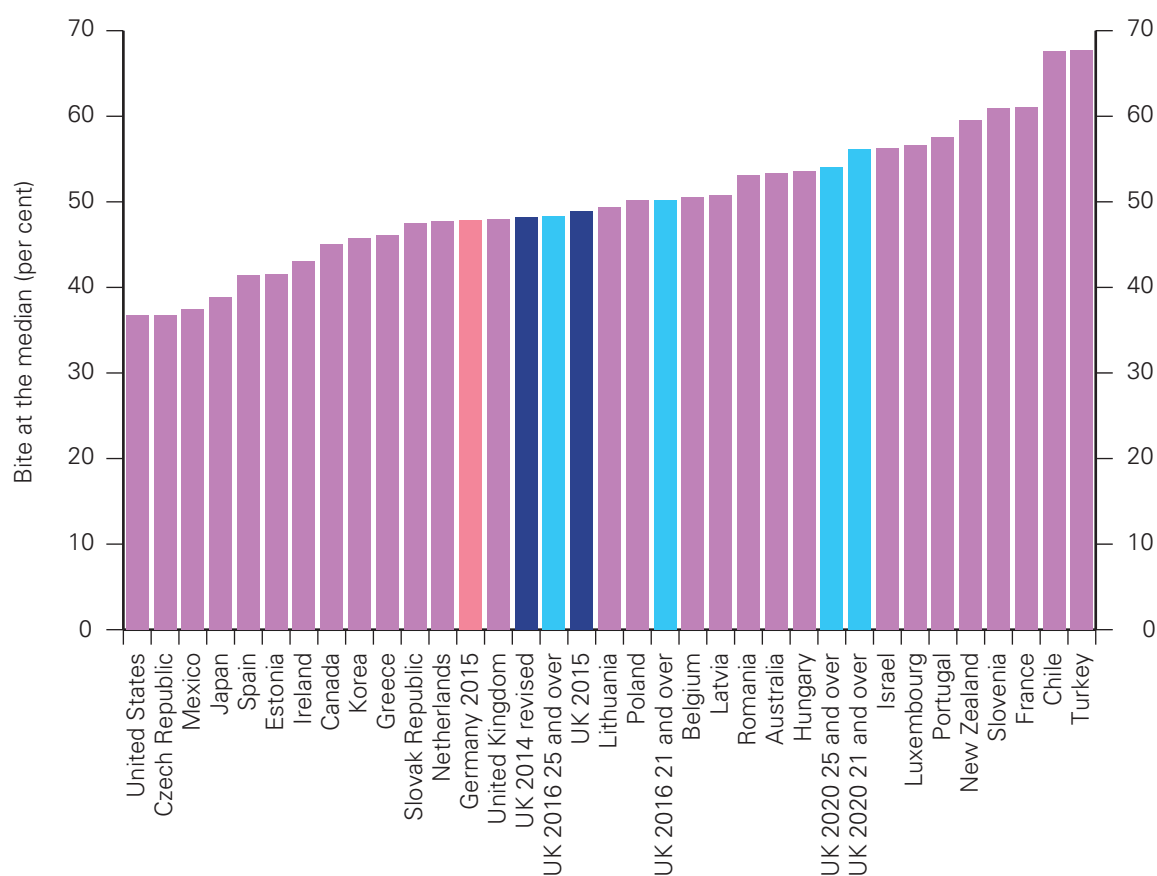
2.134 Overall, the introduction of the NLW is set to add an estimated £0.7 billion or 0.1 per cent to wage bills. The increase to 60 per cent of average earnings is set to then add an estimated £2.4 billion or 0.4 per cent of wage bills by 2020. The costs vary significantly by sector, with some industries much more affected than others. The findings are sensitive to the underlying assumptions – especially spillover effects.

International Comparisons

- 2.135** The analysis above has suggested the NLW represents a significant intervention in the UK labour market. A fourth indicator of its impact is the UK's international ranking. This is additionally relevant because the design of the NLW partly reflects international evidence. The 2020 goal for the NLW to reach 60 per cent of median earnings has its origins in the Bain Review, conducted by the Resolution Foundation (D'Arcy, Hurrell, and Plunkett, 2014). It highlighted this benchmark as a possible level for an all-adult worker minimum wage target – on the basis that other countries such as France, Australia and New Zealand had already reached this level. In fact, as noted above, the Government's goal is slightly more ambitious than this – because 60 per cent for workers aged 25 and over means a higher bite measured on an all-worker basis.
- 2.136** Comparing minimum wages in the UK with those in other countries however is not without difficulties. Many technical problems arise when making comparisons. First, the relevant pay period for minimum wages is defined differently (hourly, daily, monthly) between countries and may not readily be converted into an hourly rate for comparative purposes. Second, definitions of minimum wage coverage differ, particular with regards to the age and experience of those workers covered. As we discuss below in relation to Organisation for Economic Co-operation and Development (OECD) data, this is particularly relevant when comparing earnings across countries with different age thresholds for the adult rate of the minimum wage. For example, Greece has an adult rate of the minimum wage that begins at 25. In the Netherlands, it is 23 while it is effectively 18 in France and Germany. Third, in the UK nearly all workers are covered irrespective of contract status but in some countries the minimum wage is limited to blue collar workers, or permanent and full-time workers and might exclude seasonal, migrant, and casual workers or have lower rates for workers in 'tipping' sectors. Fourth, the availability, reliability, coverage and timeliness of earnings data varies considerably across countries. Some attempts have been made to address this issue, such as Eurostat's requirement for a Structural Earnings Survey in all EU countries, but data inconsistencies still remain. Fifth, upratings to minimum wages take place at different times in different countries, which weakens the accuracy of comparisons. Sixth, it is even difficult to compare the value of minimum wages across countries. Exchange rates fluctuate and may not be at appropriate conversion rates (due to unrelated interventions into the level of exchange rates). Purchasing power parities (PPPs) attempt to address this problem but these also have considerable weaknesses. Seventh, the costs of minimum wage workers to employers also differs across countries, with some countries subsidising employers of minimum wage labour and others having tax regimes that directly or indirectly affect labour costs of minimum wage workers.

- 2.137** Alongside these challenges, there are interpretative difficulties in relying on international rankings as a guide to minimum wages. For example, the fact of a high bite alone, or high coverage, provides limited insight into the affordability of a particular level of a minimum wage. To be properly understood, this kind of data needs to be interpreted alongside wider labour market evidence on employment and unemployment (for example, France has a high bite, but also relatively high youth unemployment). In addition, inferences about the applicability of minimum wage regimes between countries need cautious handling: there are major structural differences between economies like population size, skill levels, regulation and industrial relations systems likely to mean some countries can bear higher minimum wages than others for a given employment effect.
- 2.138** Bearing these caveats in mind we report in this section how the introduction of the NLW and its subsequent uprating to 60 per cent of median hourly earnings is set to affect the UK's international ranking. Data collated by the OECD attempt to address some of the issues discussed to enable comparison of 28 countries that have a national minimum wage. As well as using the bite and coverage, the basis of the analysis earlier in this chapter, comparisons can also be based on the value (national currency, exchange rates and purchasing power parity).
- 2.139** The latest data available for comparisons across countries are from 2014. Figure 2.14 shows that the bite for full-time workers ranges from around 37 per cent (the United States and the Czech Republic) to about 67 per cent (Chile and Turkey). The UK had a bite of around 48 per cent on this measure, putting it in the middle of the countries considered (lower than the bite reported above as this is just for full-time workers). This was similar to the bite for the minimum wage that was introduced in Germany in 2015. Since the OECD made those comparisons, the NMW has increased and new data have become available in the UK for 2014 and 2015. That data increases the bite to 48.2 per cent in 2014 and 48.9 per cent in 2015 but does not affect the UK's ranking.
- 2.140** The introduction of the NLW in April 2016 is difficult to represent accurately because of the changing age structure. Measured against the median earnings of those aged 25 and over, the bite falls to 48.3 per cent and keeps the UK between the Netherlands and Lithuania. Measured against the earnings of those aged 21 and over increases the bite to 50.2 per cent moving the UK above Lithuania and Poland but still mid-table.
- 2.141** The increase in the NLW to 60 per cent of median earnings for all workers aged 25 and over is a bigger jump. It is equivalent to about 54 per cent for full-time workers (and 56.1 per cent for those aged 21 and over). On both measures, that would put us at the upper-end of the table, above countries like Australia, rather than in the middle, and alongside Portugal and Luxembourg. We would still be below a cluster of other countries, including France, New Zealand, Slovenia, Chile and Turkey.

Figure 2.14: International Comparisons of Minimum Wage Bite at the Median, 2014-2020



Source: LPC estimates of earnings based on: OECD data, 2014; ASHE 2010 methodology, April 2014-2015, standard weights, including those not on adult rates of pay, UK; and OBR average hourly earnings growth forecasts, November 2015.

Note: Full-time employees only.

2.142 A key limitation is that these rankings appear partly to be driven by the age group the different rates cover, as well as being affected by the focus on full-time workers earnings. On the former issue, the OECD calculates the bite against the earnings of the group that are entitled to the main rate of the minimum wage. That means for workers aged 21 and over in the UK but for workers aged 18 and over in Australia, New Zealand and France. Clearly the wages of those aged 21 and over will be higher on average than the wages of those aged 18 and over, producing a lower bite. From 2016, the OECD is likely to use those aged 25 and over for the UK in its comparisons, compounding this limitation in comparisons. On the latter issue, the data compare bites at the median for full-time workers across countries, which is important methodologically because of the UK's high proportion of part-timers. As part-time workers tend to earn less, focusing on full-time workers leads to a higher median wage, and so a lower equivalent bite.

2.143 We can adjust for the focus on full-time wages by calculating the bite on an all worker basis. To correct for the age structure we use a weighted-average bite to take account of different bites for different age groups (as noted earlier in this chapter). For the UK in April 2015, the bite for 18-20 year olds was 76.2 per cent and the bite for those aged 21 and over was 54.5 per cent. Putting the two together and weighting by employment gives a weighted average bite of 55.4 per cent. That is an increase from 54.8 per cent in 2014. After the

introduction of the NLW, the equivalent weighted-average bite is set to increase to 57.7 per cent in 2016 and reach 62.0 per cent by 2020. The equivalent for the one country for which we have the appropriate data – France in 2013 – is 63.6 per cent.

- 2.144** We have also undertaken some more detailed analysis comparing the UK with Australia, New Zealand and France attempting to correct for age and hours worked. We use the earnings of all workers – both full and part-time, drawing on 2014 data for the UK, Australia and New Zealand but 2013 for France. We do not have data to calculate weighted bites for all three countries so instead compare the value of the minimum wage against earnings for all workers aged 21 and over and 25 and over. Looking at earnings for those aged 21 and over, Table 2.10 shows that the bites in France (63.3 per cent in 2013), New Zealand (62.0 per cent) and Australia (59.2 per cent) were substantially greater than in the UK (54 per cent) in 2014. The introduction of the NLW in 2016 raises the bite in the UK to around 58 per cent, much closer but still below the other three countries. By 2020, the UK overtakes Australia and has a similar bite for those aged 21 and over as France and New Zealand.
- 2.145** As noted earlier, comparing the NLW with the median earnings of workers aged 21 and over is an overestimate of the bite to the extent that some 21-24 year old workers will not receive the NLW. So we have also considered the bite just for those aged 25 and over. On this basis, by 2020, the UK would have a higher bite than Australia and a similar one to New Zealand but would remain just below France.

Table 2.10: Comparison of Minimum Wage Bite for the UK, France, New Zealand and Australia, by Age, 2013-2020

Country and Year	Bite at median for those aged 21 and over	Bite at median for those aged 25 and over
France 2013	63.3	61.6
New Zealand 2014	62.0	59.7
Australia 2014	59.2	57.4
UK 2014	53.9	51.8
UK 2016	58.3	56.0
UK 2020	62.5	60.0

Source: LPC estimates of earnings using: ASHE 2010 methodology, April 2015, standard weights, including those not on adult rates of pay, UK; OBR average hourly earnings growth forecast, November 2015; French Ministry of Labour and Employment (DARES) estimates based on Déclarations Annuelles des Données Sociales (DADS) 2013; LPC estimates based on wave 13 of Household, Income and Labour Dynamics in Australia (HILDA), 2014; New Zealand Ministry of Business, Innovation and Employment estimates using the New Zealand Income Survey (NZIS), 2014.

Notes:

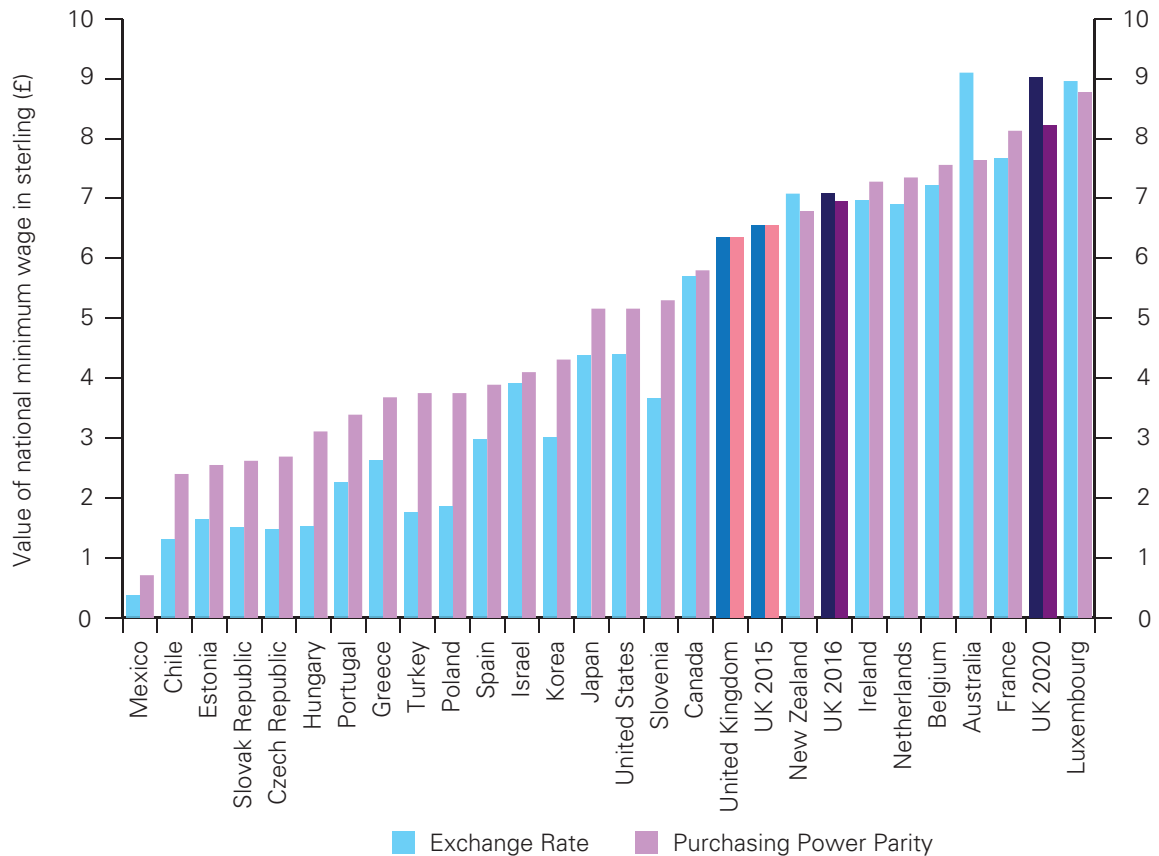
- UK ASHE data include apprentices for all years.
- French DADS data are for employees, excluding civil servants, domestic workers and agriculture.
- Australian data are for employees only.
- New Zealand data are from wage and salary jobs.

- 2.146** Overall, this analysis suggests that – correcting for the age structure, and comparing with earnings for all workers rather than just full-time workers – the National Living Wage is set to put the UK among the highest countries in the OECD for the relative value of their minimum wages.

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- 2.147** Having examined bite comparisons, a second way of ranking minimum wages across countries is to look at the value of the minimum wage and put them in order using market exchange rates or purchasing power parities (PPP). The former uses market exchange rates on a particular date, while the latter also tries to take account of different price changes and different consumption baskets in order to improve the accuracy of the comparison.
- 2.148** For comparative purposes, the OECD annualises the minimum wages of each country to get a calendar average. For example, it was £6.36 an hour in 2014 – 9 months (January 2014-September 2014) at £6.31 and 3 months (October 2014-December 2015) at £6.50. Using exchange rates, Figure 2.15 shows that the UK (£6.55) was ranked eighth in 2015 for value of the minimum wage. Australia was the highest (£9.09) with Benelux, France, Ireland and New Zealand all around £7 or more. The introduction of the NLW (£7.08 for 2016) moves the UK above Ireland and the Netherlands. By 2020, the NLW (£9.03 for 2020) will only be below Australia. These are based on exchange rates as of September 2015 – as noted above, these calculations and rankings may change as exchange rates fluctuate.
- 2.149** Using purchasing power parities (PPP), which make fairer comparisons, the UK (£6.36) was also ranked eighth in 2014 while Luxembourg (£8.77) and France (£8.13) were the highest. Assuming for the purposes of comparison that exchange rates will not change and that real minimum wages in other countries are constant, the introduction of the NLW in 2016 lifts the UK marginally – just above New Zealand. However, by 2020, the NLW (£8.23) makes more of a difference to the UK's ranking. It is set to rise in value substantially with only Luxembourg above it, though this again assumes that the real values of the national minimum wages, exchange rates and relative rates of inflation will remain unchanged up to 2020 – this is highly unlikely to be the case so should be treated with caution.
- 2.150** The coverage of the minimum wage can also be used for ranking countries. OECD (2015a) estimated that in 2010 the UK had among the highest levels on this measure, though reliance on different dates, sources and methods across countries means these may not be a true comparison (we summarise them in Appendix 3, where we consider international comparisons of minimum wages more generally).
- 2.151** In summary, the UK is likely to remain in the middle of OECD rankings in terms of the bite against the mean or median when the NLW is introduced in 2016 but move to an upper-middle ranking by 2020. Adjusting the data to take account of differences in age structure and compare on an all-worker rather than full-time worker basis appears to move the UK nearer the top of the rankings by 2020. The value of the NLW could be one of the highest in the world in exchange rate or PPP terms by 2020, although attention should be drawn to the significant caveats highlighted above.
- 2.152** As noted earlier, this analysis demonstrates the UK's ranking, and how it may be affected by the introduction of the NLW. But these comparisons provide little insight into the affordability of different levels of minimum wages between countries. We intend to commission research looking further into this area.

Figure 2.15: International Comparisons of Minimum Wages, by Value, 2014



Source: LPC estimates based on OECD data: Real hourly minimum wages in 2014 constant prices at US\$ PPPs (data extracted on 19 January 2016 at OECD.stat) converted to 2014 GB£ PPPs.

Conclusion

- 2.153** The evidence reviewed in this chapter suggests that overall, the NLW is a significant change for the UK labour market. The main beneficiaries are low-paid workers who are set to see large nominal, real and relative pay increases. However, there are also uncertainties in relation to the wider effects.
- 2.154** Respondents to our consultation welcomed higher pay in principle. However, a number of employers were concerned about the introductory rate of £7.20 – notably in sectors including small retail, some small firms, agriculture, food manufacturing, textiles and especially social care. Respondents told us that firms expect to cope with the initial rate through consolidating the wider reward package, reduced premium payments and squeezing differentials as well as considering raising prices, reducing profits and reducing hours, although few had planned the NLW increases to 2020.
- 2.155** The introductory rate of £7.20 restores the real value of the minimum wage for workers aged 25 or over to its highest ever even on an RPI basis, surpassing the value lost in the downturn. The relative value will also be at its peak, with the bite rising for this group from 52.1 per cent in 2015 to an estimated 55.1 per cent in 2016. Including the 2015 adult rate increase, the bite for workers aged 25 and over is set to increase by the same amount in the five years to 2020 as it did in the previous sixteen.

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- 2.156** The bite for workers aged 25 and over is set to be lowest for middle-aged workers, those in the South East, and those in bigger firms. It will be highest in 2016 for: those aged 25-30; those aged over 65; those working in Wales, Northern Ireland and northern England; those working in small firms and those in low-paying sectors. By 2020, the bite could reach 90 per cent for workers in retail and 100 per cent in cleaning and hospitality.
- 2.157** Meanwhile, the estimated proportion of minimum wage workers in the workforce is set to rise from 5 per cent (1.4 million) in 2015 to 8 per cent (2.2 million) in 2016 and then to almost 14 per cent (3.7 million) in 2020. Large proportions of jobs in low-paying sectors are set to be paid at the minimum wage including two in five jobs in cleaning, one in three jobs in hospitality and hairdressing and over one in six jobs in micro firms in 2016. These proportions will have increased by 2020, when over a sixth of private sector jobs (18 per cent) could be paid at the minimum wage. Coverage also increases for workers aged 25-30 and 65 and over, workers with no qualifications, workers with disabilities, migrant workers, women and ethnic minorities.
- 2.158** The introduction of the NLW is set to add an estimated £0.7 billion or 0.1 per cent to wage bills in 2016. The increase to 60 per cent of average earnings is set to then add an estimated £2.4 billion or 0.4 per cent of wage bills by 2020. The costs are in addition to forecast average earnings, with marked variation by sector. They rise to approaching 4 per cent in cleaning and 3 per cent in hospitality and hairdressing. The costs will be higher if workers aged under 25 receive the NLW, if there are large spillover effects, or if we factor in total labour costs.
- 2.159** Comparing the minimum wage in the UK with other countries, our analysis suggests that by 2020 the UK is set to move towards the upper end of the league table and, compared on a like-for-like basis, to near the top. The introduction of the NLW in 2016 however makes little difference to our position in the short-run.

Chapter 3

Recommending the Rate of the National Living Wage

Introduction

- 3.1** The National Living Wage (NLW) is a significant change for the UK labour market. As Chapter 2 set out in detail, workers are set to gain substantially from higher pay, with nominal annual earnings for a typical worker currently on the National Minimum Wage (NMW) increasing by around £680, rising to £3,360 by 2020. However, it also identified risks and uncertainties that need careful monitoring and management.
- 3.2** This chapter considers the role of the Low Pay Commission (LPC) in making recommendations on the NLW. Under our new remit requirements, we have been asked by the Government to recommend the level of the NLW for 2017 and provide an indicative rate for 2018 – both by October of this year. These will be the subject of our next report, to be published towards the end of 2016. The focus for this chapter is our underlying methodology for the path of the NLW. There are a number of practical and technical choices to be made, and we will seek views from stakeholders on these preliminary conclusions in a consultation in the spring of this year.
- 3.3** As discussed previously, the NLW is in effect a fifth rate of the NMW – one applicable to workers aged 25 and over, and initially set at £7.20. It is exactly the same as the other rates from the point of view of workers and businesses in the sense that it is legally binding, and applies existing NMW rules. It differs however from the rates affecting workers aged under 25, and apprentices, first in that there is a target for its level by 2020, and second that its level reflects a greater tolerance of some negative employment effects – when setting the target, the Government was aware of July 2015 analysis by the Office for Budget Responsibility (OBR, 2015b) estimating somewhat reduced employment growth over the period. The 2020 goal is formally subject to ‘sustained economic growth’ (BIS, 2015h).
- 3.4** This implies a somewhat different role for the LPC. For workers aged under 25 and apprentices we will continue to recommend rates that will not damage employment. For the NLW, we are set to advise on the path to the 2020 goal bearing in mind the introductory assumptions of the policy. The LPC also has a broader function in rigorously monitoring the impact of the NLW, describing impacts fully and transparently, as we identify them, and in helping to establish it on as an effective basis as possible. We suggest below that:
- The primary goal for the National Living Wage is a relative earnings ‘ambition’. The precise cash figure will change from year to year in line with the performance of the economy. This means the NLW cannot increase towards 2020 in fixed percentages or cash increments, but that rates of increase will vary with the evolution of average earnings.

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- We propose below a path based on tracking the bite, with a starting point of identifying each year the rate to keep the NLW on course for the 2020 relative goal. We set out preliminary technical decisions such as a definition of wages and choice of earnings forecast.
- Alongside knowing the 'on course' position each year, recommending the rate will also involve a decision on the profile of increases to 2020. It is possible in principle to vary the recommendation from the 'on course' rate to front-load or back-load the path, and we will consider this carefully each year based on the emerging evidence. Significant economic and labour market evidence about levels of risk including economic shocks like a recession would provide a strong basis for varying the profile. In the absence of strong evidence, the default is likely to be a straight line path to 60 per cent. This reflects both timing, data and target design considerations. We will make necessary adjustments to this as we gather information on the early impacts of the NLW and the evolution of the economy over the coming years.
- The timetable requires that we will provide rate recommendations to the Government each autumn, with our report published at or near the Autumn Statement in late November or early December. This likely means four to five months business notice rather than the current six, although this reduction may be offset to some degree by remit requirements in relation to indicative rates.
- There are both opportunities and challenges for the LPC associated with the NLW. In particular, the NLW means a bigger monitoring function as we seek to understand the impact of what is effectively a natural experiment. We intend to make the best use of the new research opportunities presented by significant change in the level of the pay floor. We will also continue our existing role in informing public debate on low pay through authoritative analysis, including highlighting barriers to higher pay in our reports.
- Equally, the pace of implied increases relative to the likely availability of labour market evidence means that we will probably be making our recommendations ahead of a clear understanding of the consequences of increases in the NLW. This could mean some reduction in our ability to manage economic risks through our decisions. The April NLW cycle also presents some practical challenges, shortening the timetable for the key data on pay, the Annual Survey of Hours and Earnings (ASHE), such that there may be some years where it is not available in time.
- Our decisions will be more dependent on forecasts than in the past. Whereas previously forecasts have acted as a guide, they will now be central to our decision.

The National Living Wage

- 3.5** The LPC has been asked by the Government to advise on the level of the NLW for 2017 and provide an indicative rate for 2018 – both by October 2016. As noted earlier in this report, the NLW is effectively a fifth rate for the National Minimum Wage (NMW) – one applicable to those aged 25 and over, and initially set at £7.20.⁶ It applies to workers on exactly the same basis as the other rates in respect of enforcement, definition of pay, treatment of pay, treatment of bonuses, salary sacrifice schemes and so on. Its key differences from the other rates are twofold.
- 3.6** First, it is set at a higher level, and on a somewhat different basis. Since the foundation of the minimum wage, the LPC has made recommendations on the level of the adult rate which have sought to raise its level as high as possible without causing ‘significant adverse employment or economic consequences’. The LPC has interpreted this wording as a requirement to recommend the level of the minimum wage that will not cause job losses. By contrast, the Government has set the level of the NLW for older workers recognising that there is a risk of some impact on employment. Analysis by the OBR in July 2015 estimated that as a consequence of the introduction of the NLW there will be between 20,000 and 120,000 fewer jobs by 2020 than there otherwise would have been albeit, over that time frame the wider economy is likely to gain 1.1 million jobs overall as the population grows (OBR, 2015b).
- 3.7** Second, the level of the NLW is subject to an ambition or target. Whereas recommendations for the minimum wage have reflected an annual decision-making process driven by the economic evidence available at that point, there is a specific goal for the level that the NLW should reach by 2020. The NLW was created as a premium on top of the adult rate, initially set at 50 pence. The 2016 remit says that ‘the Government estimates that the level of the combined National Minimum Wage and the premium in April 2016 will be 55 per cent of median earnings and has set out an ambition that this should continue to increase to reach 60 per cent of median earnings by 2020, subject to sustained economic growth. The Government’s objective is to have a National Living Wage of over £9 by 2020’. In making recommendations in relation to the National Living Wage, the LPC is asked ‘to consider the pace of the increase, taking into account the state of the economy, employment and unemployment levels, and relevant policy changes’ (BIS, 2015h).
- 3.8** The combination of the target, and the differences in level and basis of the NLW mean that the LPC’s role in relation to the policy has similarities and differences from its role in relation to the remaining adult rate (which in effect now only applies to 21-24 year olds), the Youth Development Rate, the 16-17 Year Old Rate, and the Apprentice Rate. The two roles are similar in requiring the LPC’s traditional careful monitoring of trends in the macroeconomy, GDP growth, employment growth, pay and productivity – including the response in

⁶ In our remit (BIS, 2015h), the NLW is described as a premium on top of the adult rate of the NMW – initially set at 50 pence – and we have been asked to advise on its level. So, as a technical matter, we are set to recommend the overall level of the NLW each year and the implied additional sum (or premium) over the adult rate. But this language has limited bearing on what the NLW will mean in practice for employers and employees, particularly the word premium, which should not be confused with premium pay in the legal sense. For practical intents and purposes, the NLW is a fifth minimum wage rate for workers aged 25 and over. This is reflected in the fact that the NLW will remain at £7.20 an hour in October 2016 when the adult rate of the NMW is likely to change (not increase as might be expected if the premium were a fixed additional sum above the adult rate). The basis of the structure is discussed further in Chapter 4.

low-paying sectors and small businesses. We will continue to undertake this with a view to highlighting any risks, and providing the best advice to the Government.

- 3.9** The two roles differ in that, unlike for younger workers and apprentices, a starting presumption of an increase towards the 2020 target applies for the NLW: the LPC is required to 'set out how the new NLW will reach 60 per cent of median earnings' (HM Treasury, 2015c). There is also a more stretching test of harm. Where, for the other rates, we will recommend to the Government the level of the minimum wage that we judge will have no significant adverse impact on employment, for the NLW, we will advise on the path of the wage floor for workers aged 25 and over with a minimum end point and a fixed £7.20 starting point, subject to 'sustained economic growth'. This will include monitoring closely for evidence of employment effects different from those highlighted in the OBR's analysis. These will be important in deciding whether to recommend a step away from a swift path to 60 per cent of median earnings, as will wider economic performance.

Our Broad Approach

- 3.10** In principle the LPC's approach to making recommendations on the NLW is close to that which we take for the other rates: rather than identifying what rate we believe would be affordable by considering a range of evidence, we will use a range of evidence instead to judge whether a given rate is not affordable (with a higher threshold for harm than in the past).
- 3.11** But there is an important difference in timescale. The decision-making process behind the NMW has its origins in economic theory suggesting that, at some pay level, increases in the wage floor will begin to damage employment by making the cost of employing lower-skilled workers higher than the value they create for a business. However it is difficult to know in advance where that point is – economic analysis like that undertaken by the OBR to assess the NLW is helpful for scenario planning but provides results that are inevitably highly uncertain: it can be no more accurate than its underlying assumptions.
- 3.12** The LPC's approach to date has been based on testing the issue empirically: feeling our way towards the highest NMW the market will bear – including raising the rate throughout the recession and extended recovery. We consider annually four kinds of evidence: in-house analysis of pay and labour market data; written and oral stakeholder evidence; insights from front-line visits to employers and workers across the UK; and commissioned academic (often econometric) research on the impact of previous NMW increases. This establishes a stance for the broad increase relative to what is happening to pay for other workers.
- 3.13** We have traditionally arrived at a specific number through a process of negotiation that combines judgement, data and softer intelligence. Factors supporting a bigger increase might include: strong wage growth (considering Average Weekly Earnings, ASHE, data on pay settlements); productivity growth; growth in jobs in exposed sectors and for low-paid workers; no (or limited) evidence of job or hours loss from previous increases; no major sectoral stress (especially in sectors like care, retail, and hospitality); real wage forecasts being positive; reducing wider business costs, and diminishing external risks. Leading

indicators of possible NMW stress include if the above factors weaken or become negative, higher coverage and/or a rising bite (the value of NMW as percentage of median pay – for the economy as a whole, in low-paying sectors and small firms).

- 3.14** Overall, a trait of this approach has been incrementalism, premised on the idea that NMW effects take time to appear in the wider economy. While this has not precluded sharp changes in the level of the NMW, as evidenced at the start of the 2000s, these have been time-limited, and in that particular case reflected the low starting level of the minimum wage (as well as lower bite and coverage). Increases have also reflected hard constraints in assessing impacts including lags in pay and labour market data. For example, econometric analysis requires at least several quarters of employment data after a rate increase has been implemented. More broadly, cumulative increases need testing over an economic cycle to get a full sense of their affordability.
- 3.15** An empirical approach has underpinned consensus on the rate, and helped depoliticise decisions: they have been the product of employer and union agreement that – though the exact rate is inevitably a matter of judgement – recommendations are made with broad confidence they will not cause unexpected damage.
- 3.16** Equally, in recent years, there has been public and political concern to explore ways the minimum wage can do even more to support living standards. An in-built feature of an incremental approach is that it limits the pace of change. The lack of sharp changes in the value also make it difficult to evaluate the policy – since econometric analysis ends up seeking to identify effects against the backdrop of other economic changes. Finally, if the test of the minimum wage is to increase it but keep it below the point at which it causes job losses, by definition it will always be difficult to judge whether the rate could have increased faster.
- 3.17** The NLW responds to these concerns by delivering a higher wage for older (and therefore, on average, more experienced) workers. From an economic point of view it is effectively a natural experiment. Over its lifetime the LPC has commissioned what is one of the world's richest evidence bases on minimum wages, with over 140 published studies. Subject to budget, the NLW presents a major research opportunity to add to this analysis. This matters particularly from a policy point of view in relation to ambitions for the NLW after 2020. It also underlines the importance of our existing role in informing public debate on low pay through authoritative analysis, including highlighting sectoral and other barriers to higher pay in our reports.
- 3.18** Alongside this opportunity for the LPC, a risk is that the pace of increases means that the rate is likely to increase towards 2020 ahead of definitive evidence on the impacts of the policy.
- 3.19** In the event of sharp changes in employment within sectors, or macroeconomic shocks like recession, the LPC will likely be able to identify any conclusive adverse effects and report on them. In the context of a recovering economy, the impacts may be ambiguous, slow in development and uncertain. This would mean a more limited basis – especially early on – for making confident judgements about the affordability of the rate.
- 3.20** These opportunities and constraints have implications for the LPC's approach to the NLW and our judgement of where there is scope to maximise benefits, and manage risks.

Relative Earnings-based Target

- 3.21** In our view a critical area for managing NLW impacts is the target: labour market effects are likely to depend significantly on its flexibility. The remit sets out an ‘ambition’ for the NLW to reach 60 per cent and an ‘objective’ for it to reach ‘over £9’ by 2020, with the former confirmed to us by government officials as the primary goal for the LPC.
- 3.22** A relative target is better designed than a cash target to ensure the wage floor remains ambitious without posing unanticipated risks – since it links the precise figure to the position of average earnings, which will in turn reflect wider economic performance. The 60 per cent ambition also reflects international and other evidence on how high minimum wages can rise with manageable economic and employment risks. As noted in Chapter 2, a 60 per cent bite for workers aged 25 and over equates to a bite for all workers (16 and over, or 21 and over) that is higher than the target – since the bites for the minimum wage rates applicable to younger workers aged 16-24 are already all over 70 per cent. This may give the UK one of the highest minimum wages in the OECD on this basis.
- 3.23** As Table 3.1 shows, 60 per cent of median earnings in October 2020 is currently forecast to be £9.16, compared with £9.35 when the NLW was announced in July 2015.⁷ A combination of new pay data for April 2015 and revised wage forecasts to 2020 from the OBR (2015c) mean that projected 2020 median wages have fallen from £15.59 to £15.27. Were forecast median earnings in 2020 to fall below £14.98 (a further 2 per cent fall relative to the July 2015 forecasts), the NLW median earnings target would equate to a figure lower than £9. Meeting the cash objective would in these circumstances mean delivering a NLW set at above 60 per cent for workers aged 25 and over, increasing relative benefits for these workers, but potentially also increasing any economic and employment risks.

Table 3.1: Median Earnings and the National Living Wage Under Various Scenarios, UK, 2020

	Median earnings for those aged 25 and over, 2020	NLW (60 per cent of median)
OBR forecast (July 2015)	£15.59	£9.35
OBR forecast (November 2015)	£15.27	£9.16
Point at which 60 per cent of median earnings is below £9	£14.98	£8.99
Hypothetical slow wage growth scenario – October 2020 wage out-turn is 8 percentage points lower compared with November 2015 forecast	£14.28	£8.57
Hypothetical strong wage growth scenario – October 2020 wage out-turn is 8 percentage points higher compared with November 2015 forecast	£16.26	£9.76

Source: LPC estimates based on ASHE, 2010 methodology, standard weights, including those not on adult rates of pay and excluding Year One apprentices, UK, April 2014-2015; and OBR average hourly earnings index, July and November 2015.

- 3.24** Comparing the forecast increase in the National Living Wage with that of average earnings highlights the sensitivity of the level to the latter: the NLW is on current forecasts set to increase in cash terms by 27 per cent between 2016 and 2020. Average earnings are set to increase in cash terms by around 17 per cent over the same period.

⁷ OBR average earnings forecasts will be updated in March 2016 in their next Economic and Fiscal Outlook. These will likely revise that target number again.

- 3.25** Looking back at how a similar goal would have applied in recent years also illustrates the uncertainty that necessarily affects long-term goals. Taking the period 2009-2014, there was a pound difference between what forecasters in 2009 thought median wages would be in 2014 (£13.23 on the 2009 forecast) and the actual out-turn (£12.20) – forecasts were persistently too optimistic. Translated into a hypothetical NLW intended to be set at 60 per cent of median earnings by 2014, the predicted cash value at the start of the period would have been £7.94. The out-turn would have been £7.31, 63 pence (or 8 per cent) less. Adjustments in individual years ranged up to 37 pence relative to the goal – showing high volatility. Had the original cash value predicted in 2009 remained the 2014 target, it would have equated to a bite of more than 65 per cent.
- 3.26** For the purposes of implementing the remit, the LPC will seek to recommend each year the next year's NLW rate, and provide an update on where current data suggest the NLW is likely to get to by 2020. But we will also seek to show uncertainties around the latter cash figure in light of trends in average earnings, and different scenarios for their trajectory, to share the maximum amount of information possible, without giving employers or workers false certainty.

Annual Bite Path

- 3.27** The implication of prioritising the relative target in line with the remit is that businesses planning for the costs associated with the NLW face a flexible goal. We propose to focus on the level of the bite as our key measure for whether or not the NLW is on target. Alternatives have been mentioned by some stakeholders including a fixed percentage increase unchanged for the whole period or a cash increment. But these offer notional certainty at the price of a lack of responsiveness to the path of wages and, with that, economic circumstances.
- 3.28** We discuss the details further below, but to work out the 'on target' NLW each year, we effectively need to develop an approach for the rate for workers aged 25 and over, based on a combination of the most recent pay data and short-term wage forecasts.
- 3.29** Focusing on the bite path will involve:
- Calculating the current bite of the NLW and the bite of forthcoming known changes by uprating the most recent pay median from ASHE.
 - Working out the 'on course' level of the bite for that year's recommendation by dividing the gap between the current bite level and 60 per cent by the number of years of rate decisions to 2020 (the assumptions here about the profile of the NLW are discussed further below).
 - Using forecasts for the following year to calculate the implied cash level.
 - From autumn 2017 (as ASHE becomes available for the dates when the NLW has been in force) retrospectively checking the 'real' out-turn.

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- 3.30** One question is why we are proposing to link the path of the NLW and its progression to the pace of change in average earnings rather than to equal cash or percentage amounts. Given that wages need to reach a certain level by 2020 on the NLW model, there could be advantages of clarity and certainty in an absolute number. While there was little consensus in stakeholder opinion on the operation of the NLW, desire for fixed/even steps was reflected in the views of some stakeholders including a major UK supermarket, the British Hospitality Association and the care charity, MHA.
- 3.31** However, as with the previous discussion of a relative versus cash target, where the pay floor is going to be in 2020 depends on wage growth. So, trying to plot a fixed cash path presents two drawbacks. First, the end point is likely to be too high or low. Second, distribution of pay growth may not be even, so change in any one year may be weakly related to economic circumstances. Focusing on the bite avoids these problems. It also means that the year-on-year decision is not dependent on the accuracy of long-range forecasts for 2020 – though we will monitor it and report upon the changing destination – but can be based on (less unreliable) nearer-term forecasts.
- 3.32** As part of this analysis the LPC has modelled cash, percentage and percentage bite paths for the period 2009-2014, working on the assumption that the end point is updated for the cash and percentage approaches each year as new data emerges. This analysis found that increasing the bite by around a point each year gave results nearer to reaching 60 per cent in even steps, closer to the out-turn and with lower volatility. The rate was never more than 10 pence from the out-turn compared with up to 24 pence for linear cash uprating and 23 pence for percentage uprating.

Profile of Increases

- 3.33** If the target is the bite year to year, a central issue is what profile it should follow. In principle, there is considerable freedom for the LPC to vary the path from year to year to reach the 2020 destination – either back-loading or front-loading it, perhaps reflecting wider policy considerations, or linking it to an economic variable like GDP growth, employment growth, inflation or productivity growth. Any choice to do this however is constrained by the nature of the target and evidential considerations, as well as limited stakeholder consensus.
- 3.34** Table 3.2 shows a straight line bite path, based on the data available in January 2016. It should be noted that this in all likelihood will change when OBR average earnings growth forecasts are updated in March 2016 in their next Economic and Fiscal Outlook, and then again in October 2016 – in line with new ASHE data and revised forecasts – when we reach a decision on our recommendation for the April 2017 rate.

Table 3.2: Indicative Straight Line Bite Path for the National Living Wage, UK, 2016-2020

Path	Indicative bite path (based on data available in January 2016; likely to change)		Implied cash increase (April to April)	Implied percentage increase (April to April)
2016	7.20	55.1	0.70	10.8
2017	7.64	56.3	0.44	6.1
2018	8.12	57.6	0.48	6.3
2019	8.62	58.8	0.50	6.2
2020	9.16	60.0	0.54	6.3

Source: LPC estimates based on ASHE, 2010 methodology, standard weights, excluding Year One apprentices, UK, April 2014-2015; and OBR average hourly earnings index, July and November 2015.

Notes:

- a. The numbers in black and bold are known. The other numbers are set to change subject to new data and LPC deliberations.
b. The bite is measured mid-year, October.

- 3.35** The LPC sought views on the path of the NLW in its consultation for this report, albeit only a minority of responses commented in detail. These were divided between back-loading the trajectory or recommending it follow a front-loaded or even-spread profile. The CBI said that ‘slower rises would be preferable, with quicker rises in later years if the economic evidence supports this’, reflecting a view that the large increase for firms between September 2015 and April 2016 should be taken into account. By contrast the TUC said that ‘the LPC needs to forge ahead with a series of increases that significantly exceed the growth in average earnings. Moving too cautiously in the early part of the period risks leaving too much to do in later years’. The Union of Shop, Distributive and Allied Workers (Usdaw) agreed that the NLW trajectory should not be back-loaded. There was finally, as noted above, a third grouping: employer respondents arguing for consistent increases at the same rates year-on-year as being preferable to rates that fluctuated.
- 3.36** In the absence of consensus, key design constraints in varying the profile year by year include the nature of the target and the pace of increases.
- 3.37** The nature of the target has a bearing because the logic of a goal with a fixed end point is that variation in profile is a zero sum game: smaller increases in one year (if thought to be lower risk) arithmetically result in higher increases in other years (and therefore higher risk). Our analysis suggests that the distance to be travelled means that meaningfully to reduce increases early in the period or towards 2020 implies very large increases late in the period or early on. As Table 3.2 shows, on an even profile reflecting the data available in January 2016, the bite of the NLW is forecast to rise by just over 1 per cent a year, and 6 per cent a year in cash terms 2017-2020. Back-loading it, for example, so the bite increases by 0.5 percentage points 2017-2019 and then more than 3 points in 2020, reduces NLW increases in cash terms to 4-5 per cent for the period but increases it by over 10 per cent in the final year. Front-loading it creates the inverse pattern.
- 3.38** The pace of increases has a bearing because, as argued above, minimum wage effects need several years to be assessed fully and there is likely to be incomplete evidence through at least some of the period to 2020. Measurement time lags mean we will probably be making our recommendations ahead of a clear understanding of the consequences of NLW increases, so the basis for variation may be weak.

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- 3.39** Stakeholder views reinforce the logic of these positions. Stakeholders concerned to maximise employee gains are unlikely to want to back-load wage increases because it means a risk the NLW will turn out lower than it otherwise would have been (for example, if wage forecasts fall), plus – even if progress is made towards the original destination – wages will be lower in the interim. Stakeholders concerned to manage business costs are unlikely to want to front-load it for equal but opposite reasons.
- 3.40** Our conclusion is that we will endeavour each year to consider the best possible trajectory, with economic shocks or other strong evidence likely to influence the path. In the absence of strong evidence, the default is likely to be a straight line trajectory to 60 per cent.
- 3.41** As Table 3.2 shows, the rate for April 2017 putting the NLW on course for its 2020 target (based on data available in January 2016) is £7.64. The equivalent figure in the autumn – based on the latest data, and the principle of travelling a quarter of the way to 60 per cent – is likely to be the opening number for our discussions, assessed as far as possible for its affordability and other impacts. This would mean, as with the other rates, considering: factual analysis of the impact of that rate (bite, coverage); interpretative evaluation in view of past increases (job losses) and wider economic conditions (growth, employment growth, wage growth, other business costs, sectoral impacts); and implications of the rate for future increases and assessment of conditions.
- 3.42** Commissioners may decide to be more or less ambitious – for example, if there is strong evidence of harm, or the labour market and firms appear to be accommodating it more comfortably than we had expected. The outcome will be a recommendation or – in the absence of agreement or if the evidence is inconclusive – potentially simply reporting the figure that leaves the NLW ‘on course’, with factual analysis of its implications for coverage, sectors and so on.

Our Approach to Measurement

- 3.43** If the key requirement each year is to know the figure to put the NLW on course for the target, there are a number of technical choices to develop the associated approach to measurement including the definition of earnings, choice of earnings forecast and when to measure the bite (we have built the choices discussed below into Table 3.2 above and the analysis in Chapter 2).
- 3.44** In our previous reports and analysis, we have used median earnings as a way of measuring the bite of the NMW, but this was just one way in which we assessed its impact. Now that it has become a target, it is important that we agree a definition of the median wage. We have discussed the definition with OBR and government officials and agreed a measure derived from ASHE – the same as that which we use in our existing analysis for the NMW. We propose that – for the purposes of the NLW – the key measure will be the median of hourly earnings excluding overtime and special premia pay for those aged 25 and over, estimated using standard weights (and excluding those whose pay was affected by loss of earnings) for the UK.

- 3.45** Forecasts matter because pay data lags and we need to uprate ASHE and project it out to 2020. But there are at least two limitations in doing this.
- 3.46** First, we are interested in median pay, and only mean earnings growth is forecast. Over the long-term this should not matter as average earnings growth is a reasonable proxy – in ASHE, growth in median hourly earnings has averaged 2.3 per cent a year over the last 10 years, and 1.3 per cent over the last five years; slightly higher than mean hourly earnings growth of 2.1 per cent a year over the last 10 years and 1.0 per cent over the last five years – but it is a factor that will need monitoring.
- 3.47** Second, there is the question of the forecast period, with few forecasts available for earnings growth that even extend beyond 2017. One of the few organisations to provide forecasts for earnings growth up to 2020 is the OBR. In its Economic and Fiscal Outlook, published in July 2015, OBR (2015b) produced two earnings forecasts – one based on a weekly earnings measure derived from the National Accounts measure of Wages and Salaries and one based on a new hourly index. OBR (2015c) revised both of these forecasts in November 2015 and projected them quarterly up to the first quarter of 2021. The other possible alternative is the HM Treasury Panel of Independent Forecasts, currently collated from 43 organisations. These cover wage growth for the current and following year. They do not include longer-term earnings forecasts, although we are working with officials to see if five-year forecasts could be added to the Treasury’s quarterly collation of forecasts.
- 3.48** Because we are proposing to target the bite on a rolling annual basis, we do not need to forecast pay to the end of the NLW period to work out whether we are on track or not. Nonetheless, data lags and the timing of when the NLW target is measured mean we do need to be able to forecast 18 months ahead (see below). In addition, we will want to monitor the long-term 2020 picture even if this is not driving the figure that will be the starting point for the next year’s rate discussion.
- 3.49** Overall, we propose that the most relevant wage forecast will be that derived from OBR’s ‘hourly earnings index’.⁸ This gives slightly higher wage growth than the average earnings index, but is hourly so is closest to the definition of the minimum wage. Its main disadvantage is that it is a new index so there is limited evidence of its track record (although it is derived in a similar way to the average earnings index which the OBR has forecast since 2010). There are also some timing risks on this because OBR forecasts are produced in March and November/December, but we are likely to have to report in October in future years for November/December publication. To address the accuracy and timing risks, we propose to keep abreast of developments among the HM Treasury Panel of Independent Forecasts.
- 3.50** A final issue to consider in developing our approach to measurement for calculating the ‘on target’ rate is the precise timing of the assessment for meeting the goal, which relates in

⁸ The OBR defines its ‘average earnings index’ as wages and salaries divided by employees, where wages and salaries is total compensation of employees (ONS identifier: DTWM) minus employers’ social contributions (ONS identifier: ROYK) and employees is total employment (MGRZ) less self-employed (MGRQ). This measure is not the same as Average Weekly Earnings, but it is similar. OBR defines its ‘hourly earnings index’ as wages and salaries divided by hours worked, where wages and salaries is total compensation of employees (ONS identifier: DTWM) minus employers’ social contributions (ONS identifier: ROYK) and hours worked is actual weekly hours worked (YBUS). This measure is similar to the average earnings index but has a denominator of hours rather than employees.

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turn to the cycle of the minimum wage. The NLW cycle is set to run from April to April and the bite is higher or lower depending on when it is measured. Historically, the LPC has measured the bite in April, the reference period for ASHE, which has happened to be 6 months through the existing NMW cycle (which runs from October to October).

- 3.51** The Government has advised that, as a matter of policy, the NLW target should be measured in October, not April – on the basis that the underlying intent of the policy is for the average bite to be 60 per cent in 2020. Because pay increases through time, measuring at the start of the NLW year in April would mean that a figure that was 60 per cent at that point in time would subsequently fall below this. The net effect of measuring in October relative to April is that the value of the NLW needed to reach 60 per cent of average earnings is higher by half a year's pay growth – about 2 per cent on current forecasts, or 20 pence an hour.
- 3.52** Measuring in October also has some practical implications: namely that it changes the likely reliability of the data enabling the LPC and the Government to work out the rate putting the NLW on course for 2020, and increases the period in which the final out-turn is not known.
- 3.53** To recommend the level of the NLW, the LPC will need each autumn to take that year's ASHE and update it by earnings forecasts to work out the bite the following year. So ASHE will need to be updated by 18 months. The out-turn for the 2020 target will not be authoritatively known until around October 2021 (since the bite to meet the target in October 2020 will need to be calculated using both the 2020 and 2021 ASHE to cover both the start and end point).

Timetable

- 3.54** A final consideration in relation to recommending the rate of the NLW is the timetable, which has implications for business notice (something closely related to indicative rates) and some practical challenges.
- 3.55** The NLW is initially on an April cycle in order to be aligned with the tax year, whereas the NMW currently operates on an October cycle. The Government is reviewing their alignment, with a possible outcome being they are brought together in April 2017. One consequence of a changed cycle is somewhat reduced business notice, albeit potentially offset by indicative rates. Where firms currently find out forthcoming rates around March for pay to change in October of that year, for the NLW firms are likely to find out late autumn for pay to change the following April. This is a reduction from around 6 to between 4 and 5 months.
- 3.56** The timing arises from hard constraints on data. To work out the 'on course' level of the NLW, to execute analysis of its impacts and to reach judgements about the levels of the other rates accurately, the most recent ASHE is needed. But this is not currently available until November. It is a very large data set and the ONS is moving publication forward as far as possible in order to aid our decision-making. After discussions with ONS and HM Treasury, it is likely that the data in future will become available to the LPC by mid-September. We in turn are set to report to the Government on our recommendations for the level of the rates by the end of October, and give it our full report in late November, in time, for the Autumn Statement.

- 3.57** A technical but important consideration for the NLW is that the April cycle reduces the period available to the LPC to reach rate recommendations as well as increasing the risk of having to make decisions on the NLW without the key data, ASHE. The tighter timetable for ONS means a somewhat greater possibility of slippage in some years. The LPC is working with officials to plan for contingencies in the event of ASHE not being available or late.

Conclusion

- 3.58** The role of the LPC is changing. The requirements arising from the NLW mean an adjustment in the LPC's wage-setting function. We will continue to recommend rates for those aged under 25 and apprentices that will not damage employment. For workers aged 25 and over we will advise on the path to 60 per cent of median earnings by 2020, bearing in mind OBR estimates of job losses.
- 3.59** Our key goal is the 60 per cent relative earnings objective, which currently (January 2016) equates to a NLW of £9.16 in 2020. For the purposes of the remit we will seek to recommend each year's NLW rate and provide an update on the implied 2020 level – but also show uncertainties around the level in light of economic trends.
- 3.60** The corollary of a flexible goal is that the path of the NLW to 2020 cannot follow fixed cash or percentage increments. We propose to focus on the bite path. We will then draw on economic, labour market and pay analysis, independent research and stakeholder evidence to decide whether to depart from this level by varying the profile.
- 3.61** Stakeholders were divided on whether the NLW should be back-loaded or front-loaded, or follow a straight line. Our intention is that we will endeavour each year to consider the best possible trajectory, with economic shocks or other strong evidence likely to influence the path. In the absence of strong evidence, the default is likely to be a straight line trajectory to 60 per cent.

Chapter 4

21-24 Year Olds and the Adult Rate of the National Minimum Wage

Introduction

- 4.1** The introduction of the National Living Wage (NLW) means that the adult rate of the minimum wage will in future only directly apply to 21-24 year olds. The 2016 remit of the Low Pay Commission (LPC) implies that our recommendations for the adult rate (and youth rates) have a somewhat different basis to the NLW. Where the NLW is subject to a target, and seeks to raise pay recognising that there is some impact on employment, our recommendations for the other rates are not subject to a 2020 goal and – as in the past – are set with a view to avoiding job losses. July 2015 analysis by the Office for Budget Responsibility (OBR, 2015b) estimating the possible employment effects of the NLW assumes the pay floor for 21-24 year olds follows average earnings to 2020 rather than the NLW: reductions in employment and hours worked would be greater if this group were included.
- 4.2** This chapter sets out the evidence on earnings and employment to understand the extent to which 21-24 year olds are a distinct cohort and there is an economic rationale for them to be subject to a lower pay floor than older workers. This includes comparing them with those aged 18-20 and 25-30 to see how they are similar and different. We focus on these groups as it is here that we would expect to see any substitution effects arise from the differing wage floors. For example, we may observe substitution of jobs from 21-24 year olds to 18-20 year olds if the wage floor for 21-24 year olds is set too high relative to the younger age group going forwards. Alternatively, some employers may begin to substitute away from 25-30 years olds to 21-24 year olds depending on the level of any gap between the NLW and pay for 21-24 year olds – though there may also be an ‘absolute’ pay effect (a small gap may limit substitution but could ‘price out’ workers from employment altogether if their pay was felt to be too high).
- 4.3** The analysis presented here seeks, first, to inform decisions about how to set the rate (that is, contribute to developing a methodology for the adult rate now it directly applies to 21-24 year olds only) and, second, to provide the evidence base for decisions in Chapter 7 on our recommendations for the level of the adult rate to apply from October 2016. We consider there the evidence from stakeholders.

4.4 In the past, 21-24 year olds were treated as part of a bigger group in relation to our recommendations on the pay floor, those aged 21 and over. The LPC has traditionally considered earnings, employment and unemployment, and leading indicators of NMW impact like coverage and the value of the minimum wage as a proportion of median earnings (the 'bite') to assess affordability. Median earnings are, on average, lower for younger workers. The pay floor for 21-24 year olds is therefore likely to have been pulled up by the previous structure of the NMW. Workers aged 25 and over are now in effect a distinct group. This may suggest a more cautious approach for the future, with 21-24 year olds effectively treated as a new age band rather like the youth rates. However, this judgement depends on evidence of risk to employment. The chapter begins with the LPC's remit and role. We then provide a static overview of the 21-24 year old cohort, looking at their labour market position and earnings (including the bite). We next look over the longer-term to analyse trends in their labour market participation, and earnings growth, prior to and through the recent recession, to the present day. This allows us to assess their vulnerability or resilience to economic shocks and NMW decisions. Finally we consider the scope for employers to substitute between workers and between NMW rates.

Remit and Role

4.5 The introduction of the National Living Wage creates a higher pay floor for workers aged 25 and over than those aged under 25. The Government explained its rationale for this structure in the July 2015 Budget (HMT, 2015c). It argued that: it wants to increase pay for workers, but 'for younger workers the priority is to secure work and gain experience, which is already reflected in the existing NMW rate structure. In order to maximise the opportunities for younger workers to gain that experience, the NLW will only apply to workers aged 25 and over'. The Government's Regulatory Impact Assessment for the NLW elaborated further that the Government had excluded workers aged under 25 on the basis of international evidence and economic evidence on employment levels and earnings which suggested that younger workers were more exposed to risks of a higher pay floor than older ones (BIS, 2015j).

4.6 The Government's evidence to us added that the NLW applies to those aged 25 and over partly because 'with lower average wages compared to older workers, the bite of the NMW tends to be higher for those aged 21 to 24, although there is little evidence that this has impacted on the employment prospects of this group to date. In addition... the labour market conditions of workers aged under 25 are not generally as robust as for those aged 25 and over, particularly during cyclical downturns' (BIS, 2016). The legislative basis is the National Minimum Wage Act 1998 which allows pay to be varied by age below 26, but not above.

The Structure of the NLW

'The NLW will be limited to those aged 25 and above because we need to protect the employment prospects of younger workers. As with the 16 to 17 and 18 to 20 NMW rates, the new rate category would achieve this while still allowing for an increase in the statutory wage floor. This is necessary for two reasons. Firstly, the priority for younger workers is to secure work and gain experience so that they can compete in the labour market. Secondly, those aged 21 to 24 have a marked difference in labour market dynamics when compared to older workers, including those aged 25 to 28. This is evident through differences in their median earnings, employment rates and unemployment rates (taking into account those in full-time education). The National Minimum Wage Act allows for minimum wages to treat differently those aged up to 26 under clause 3. Workers aged above this must receive the same rate. This cut-off was chosen "to ensure that regulations apply to all those who may reasonably be taken to fall within the category of young people". The Act notes that the International Labour Organisation and European Union each define young people as those aged 25 or under. Furthermore, within the UK those aged under 25 were defined as young people for the purposes of student support, social security payments, and the New Deal. With lower median earnings, younger workers are disproportionately affected by the minimum wage and this means that they are more at risk of adverse employment impacts... in 2014 the 'bite' of the adult minimum wage of £6.31 (i.e. the level of the wage floor relative to the median earnings of the group in question) was over 70% for each age from 21 to 24, while for each age above 25 the bite was below 65%. Introducing the NLW at a lower age threshold could damage employment prospects because the impact on the younger workers would be greater and they already face higher unemployment rates. Introducing a new rate at a 25 and above threshold allows older workers to benefit from a higher wage floor without potentially harming employment levels for younger workers.'

Excerpt from the Government's Regulatory Impact Assessment (BIS, 2015j)

- 4.7** The design may also reflect other policy considerations. Changes to benefits and previously proposed changes to tax credits had most bearing for workers aged 25 and over (those aged under 25 are not normally eligible for tax credits, for example). An additional background consideration is the Government's commitment to a tax-free minimum wage, where it has pledged to raise the personal allowance such that no minimum wage worker working up to 30 hours at the adult rate pays income tax.⁹

⁹ This will be a legal requirement once the personal allowance reaches £12,500. Ahead of this, the Government will be subject to a duty to consider the impact on an individual working 30 hours a week on the NMW and report at each fiscal event. The new structure of the minimum wage underpins this commitment since, if a tax free minimum wage applied to the NLW rather than the adult rate of the NMW, it would be likely to lead to the level of the personal allowance increasing rapidly beyond £12,500, the current life-of-Parliament commitment (£12,500 is reached once the NMW reaches £8.01). The Government plans to increase the income tax personal allowance from £10,600 in 2015-16 to £11,000 in 2016-17. It will increase to £11,200 from 2017-18.

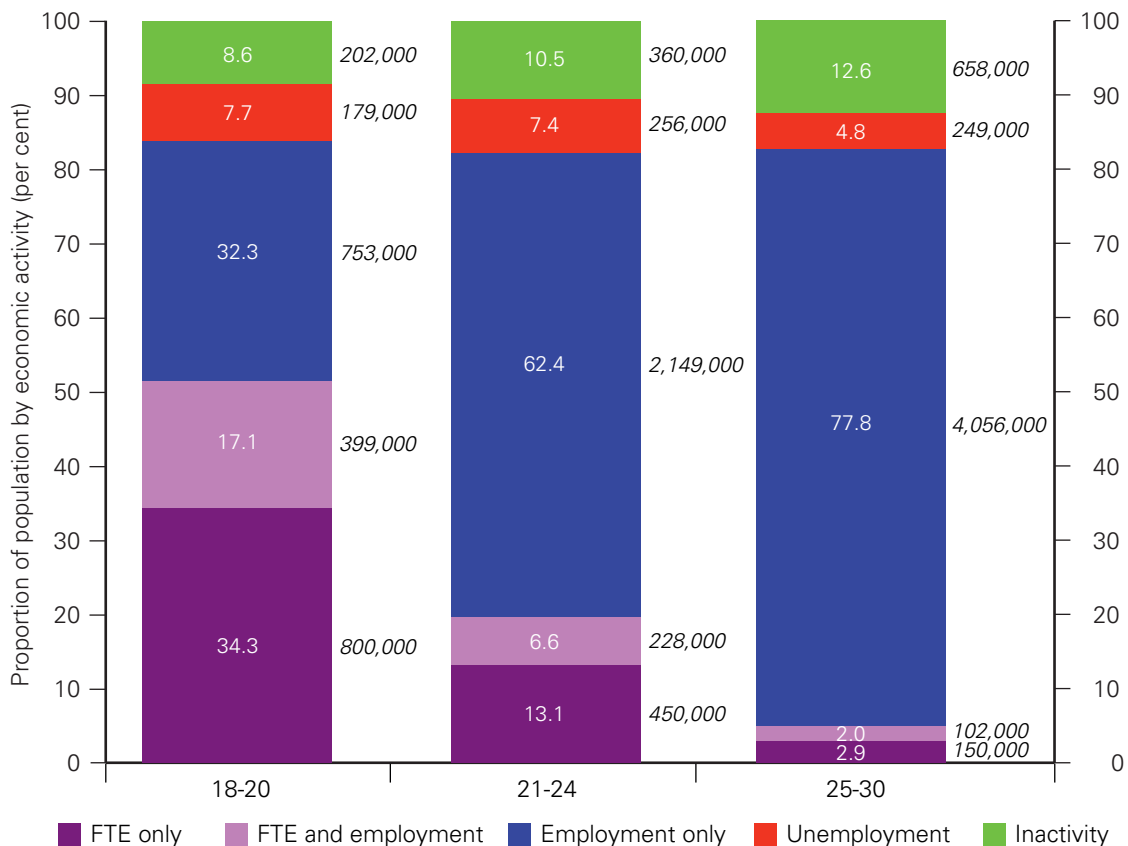
Overview of the 21-24 Year Old Cohort in 2015

4.8 We begin with an overview of the 21-24 year old cohort, looking at: their participation in the labour market; where, and how, they work; their earnings; and the bite of the minimum wage. The analysis aims to shed light on the potential exposure of 21-24 year olds to NMW decisions: that is, the extent to which they will be adversely affected if the minimum wage – either the NMW or NLW – is set at a level that causes job loss.

4.9 In the third quarter of 2015 there were 3.44 million young people aged 21-24 in the UK. They had similarities and differences with both older and younger workers. For example, they were similar to the population aged 18-20 years, for whom the Youth Development Rate (YDR) applies, in having a relatively large proportion in full-time education (FTE), and in terms of proportions unemployed. But they also bore some similarity to 25-30 year olds – those currently covered by the adult rate of the NMW but who will, with workers aged over 30, be covered by the new NLW from April 2016 – in that the majority of both groups were in employment.

4.10 Figure 4.1 shows that around a fifth (19.7 per cent or 678,000) of 21-24 year olds were in full time education (FTE). This was a much higher proportion than their counterparts aged 25-30 (4.8 per cent), but much lower than for 18-20 year olds (51.4 per cent). The majority of 21-24 year olds (69.0 per cent or 2.38 million) were in employment, including 6.6 per cent in FTE and part-time work; excluding those in FTE, over three quarters (77.7 per cent) were in employment.

Figure 4.1: Economic Activity, by Age, UK, 2015

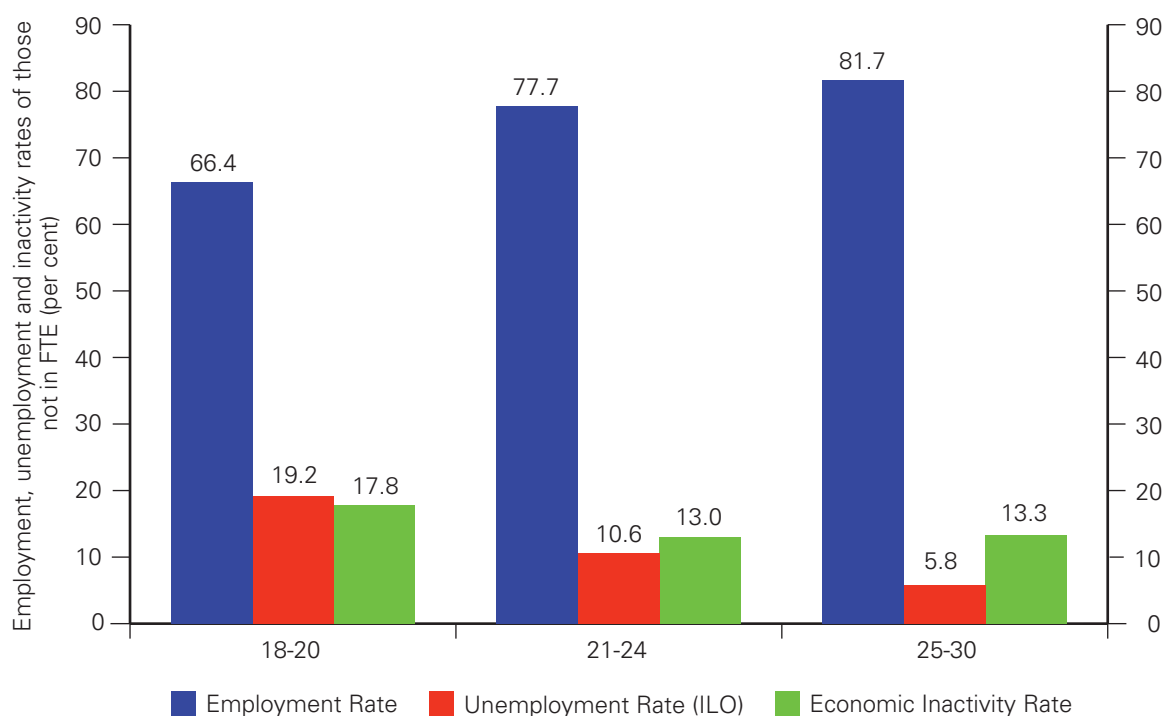


Source: LPC estimates based on LFS Microdata, four-quarter moving average, UK, Q3 2015.

4.11 Figure 4.1 also shows that around a quarter of a million 21-24 year olds were unemployed in the third quarter of 2015. The proportion of 21-24 year olds that were unemployed was similar to their younger counterparts aged 18-20 years (7.4 per cent and 7.7 per cent respectively). But these proportions were substantially higher (around 2-3 percentage points) than the proportion of 25-30 year olds that were unemployed (4.8 per cent).

4.12 The LPC’s focus on the labour market means we are primarily interested in the situation of young workers rather than those in education so, as well as considering the cohort as a whole, we always put particular weight on trends excluding young people in FTE. When those in FTE are excluded, it is clear that 21-24 year olds sit between 18-20 and 25-30 year olds in terms of their labour market position. Figure 4.2 shows that the employment rate of 21-24 year olds not in FTE, at 77.7 per cent in the third quarter of 2015, was only 4 percentage points below that of their older counterparts aged 25-30 years (81.7 per cent); and 11 percentage points higher than their younger counterparts aged 18-20 (66.4 per cent). The proportion of 21-24 year olds that were economically inactive, at 13.0 per cent, was also close to the rate for 25-30 year olds (13.3 per cent). But the unemployment rate for 21-24 year olds not in FTE was almost twice the rate among 25-30 year olds – 10.6 per cent compared with 5.8 per cent respectively – albeit the unemployment rate for 18-20 year olds, at 19.2 per cent was considerably higher still.

Figure 4.2: Employment, Unemployment and Inactivity Rates of Those Not in Full-time Education, by Age, UK, 2015



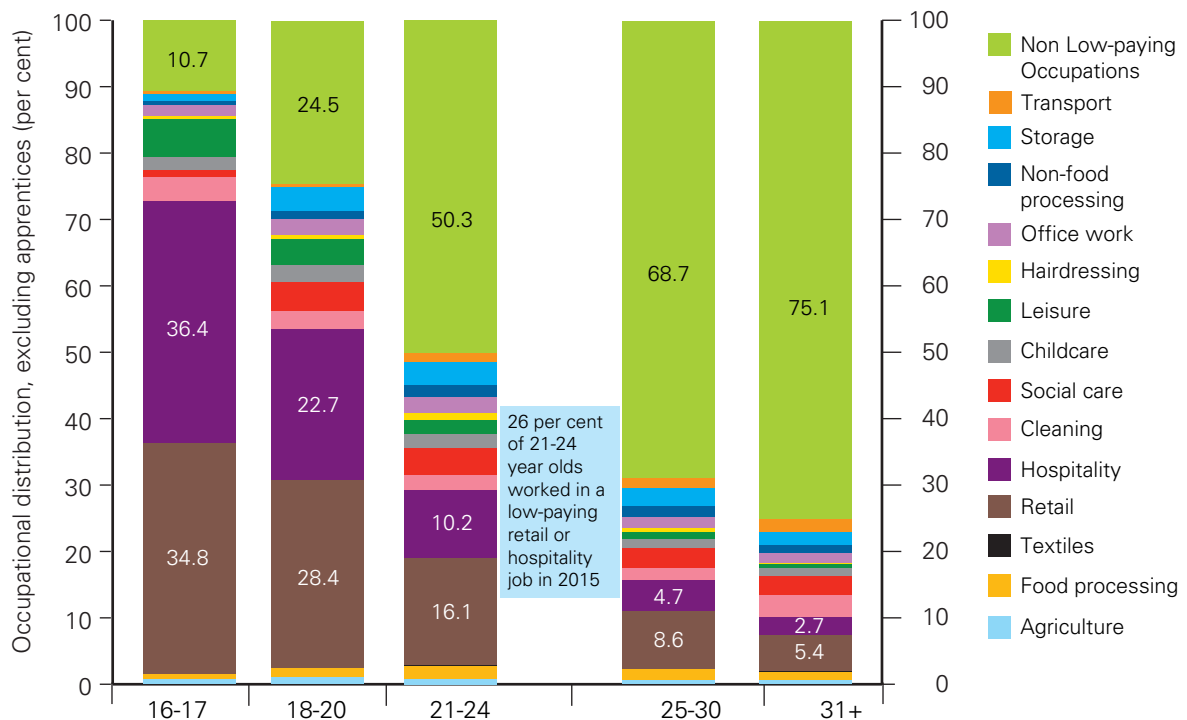
Source: LPC estimates based on LFS Microdata, four-quarter moving average, UK, Q3 2015.

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4.13 Figure 4.3 shows the occupational distribution of workers, including the proportions working in low-paying occupations. Workers in low-paying occupations are considerably more exposed to decisions on the NMW rates due to the rates having much greater influence on pay-setting within these sectors. Figure 4.3 shows that – on this measure – again they sit between older and younger workers, albeit with a high absolute degree of exposure. About half of 21-24 year olds were in a low-paying occupation in April 2015. They were 19 percentage points more likely than 25-30 year olds (31 per cent) to work in a low-paying occupation, but less likely than younger workers. 75 per cent of 18-20 year olds and 89 per cent of 16-17 year olds worked in a low-paying occupation in April 2015.

4.14 Figure 4.3 also shows the reliance of 21-24 year olds on two of the main low-paying occupations, hospitality and retail. Around one in four workers aged 21-24 worked in a low-paying retail (16 per cent) or hospitality (10 per cent) occupation in April 2015. Again, they were more reliant than older workers on low-paying jobs in these two sectors, although less reliant than younger workers. And these sectors were, in turn, reliant on their labour: 21-24 year olds accounted for 7 per cent of total jobs but twice that proportion of low-paying hospitality (16 per cent) and retail (15 per cent) jobs in 2015.

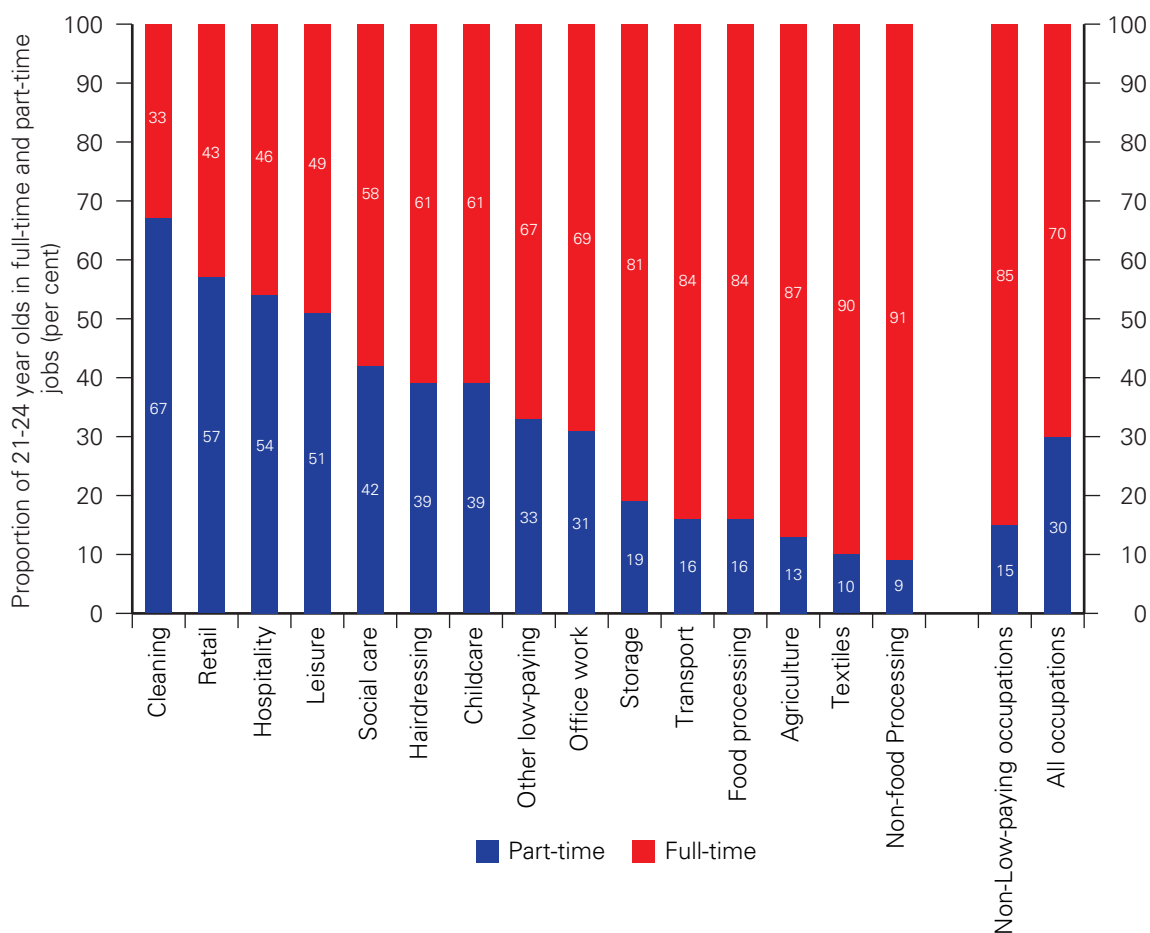
Figure 4.3: Distribution of Low-paying Jobs, by Age, UK, 2015



Source: LPC estimates based on ASHE, April 2015, standard weights, including those not on adult rates of pay, excluding apprentices, UK.

4.15 One feature of low-paying hospitality and retail occupations – and of low-paying occupations generally – is the greater proportion of part-time jobs, defined here as working fewer than 30 hours a week. Figure 4.4 shows that the proportion of part-time jobs held by 21-24 year olds was 57.4 per cent in retail; and 54.1 per cent in hospitality, compared with 30.2 per cent overall in April 2015.

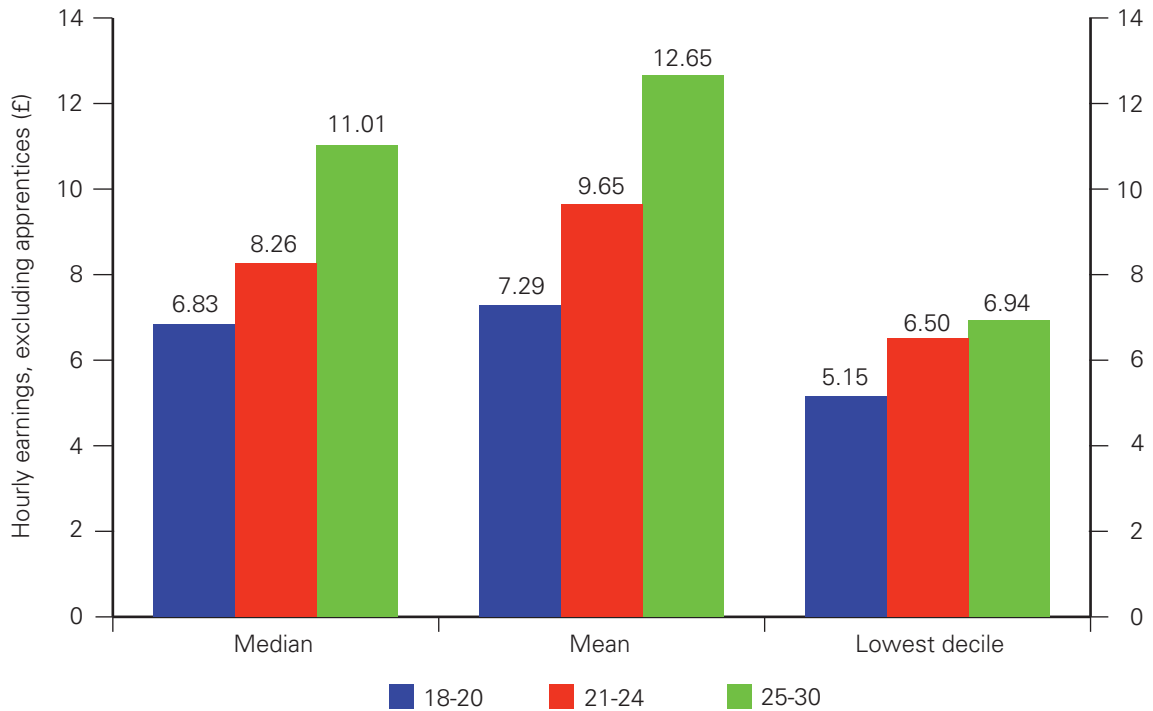
Figure 4.4: Distribution of Part-time and Full-time Low-paying Jobs Held by 21-24 Year Olds, by Low-paying Occupation, UK, 2015



Source: LPC estimates based on ASHE, April 2015, standard weights, including those not on adult rates of pay, excluding apprentices, UK.

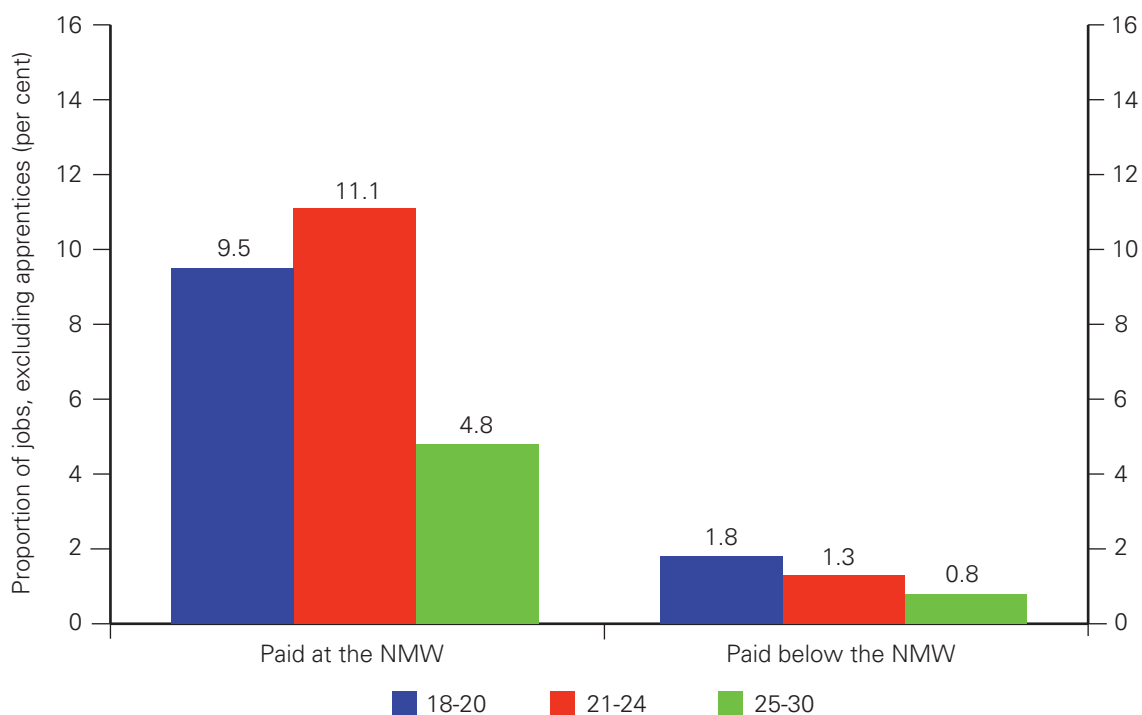
4.16 The reliance of 21-24 year olds on low-paying, and often part-time, jobs has clear implications for their exposure to minimum wage decisions. It is reflected in turn in the level of their earnings. Figure 4.5 shows that the hourly earnings of 21-24 year olds were, strikingly, generally closer to those of 18-20 year olds than those of 25-30 year olds in April 2015. Hourly earnings of 21-24 year olds were £8.26 at the median of the earnings distribution, 17 per cent higher than the median for 18-20 year olds (£6.83) but 33 per cent lower than the median for 25-30 year olds (£11.01). The pattern was similar when comparing mean hourly earnings: mean earnings of 21-24 year olds, at £9.65, were 24 per cent higher than for 18-20 year olds (£7.29), but 31 per cent lower than for 25-30 year olds (£12.65). At the lowest decile of the earnings distribution, 21-24 year olds were paid closer to 25-30 year olds than 18-20 year olds, but this is due to both groups sharing the same minimum wage floor. In addition, while the bottom decile of earners aged 21-24 were paid exactly at the NMW for April 2015 (£6.50), their counterparts aged 25-30 were paid 44 pence more (£6.94).

Figure 4.5: Hourly Earnings, by Age, UK, 2015



Source: LPC estimates based on ASHE, April 2015, standard weights, including those not on adult rates of pay, excluding apprentices, UK.

4.17 What about use of the minimum wage, higher levels of which are a possible leading indicator of pressure for an age group or sector? Figure 4.6 confirms the greater likelihood of 21-24 year olds being paid at the NMW than 25-30 year olds. In April 2015, one in nine 21-24 year olds (11.1 per cent) were paid at the NMW of £6.50, or within five pence of it, twice the proportion of those aged 25-30 (4.8 per cent). This was close to, indeed slightly greater than, the proportion of 18-20 year olds paid at the YDR (9.5 per cent). Looking at a related indicator, the proportion paid below the NMW, where high levels may indicate employers struggling to comply, 21-24 year olds sit more squarely in the middle. The proportion of 21-24 year olds paid below the NMW was greater than the proportion among 25-30 year olds (1.3 per cent compared with 0.8 per cent), but lower than the proportion among 18-20 year olds (1.8 per cent). However, the absolute levels of payment below the NMW appear to be low.

Figure 4.6: Proportion of Jobs Paid At and Below the National Minimum Wage, by Age, UK, 2015

Source: LPC estimates based on ASHE, April 2015, low pay weights, including those not on adult rates of pay, excluding apprentices, UK.

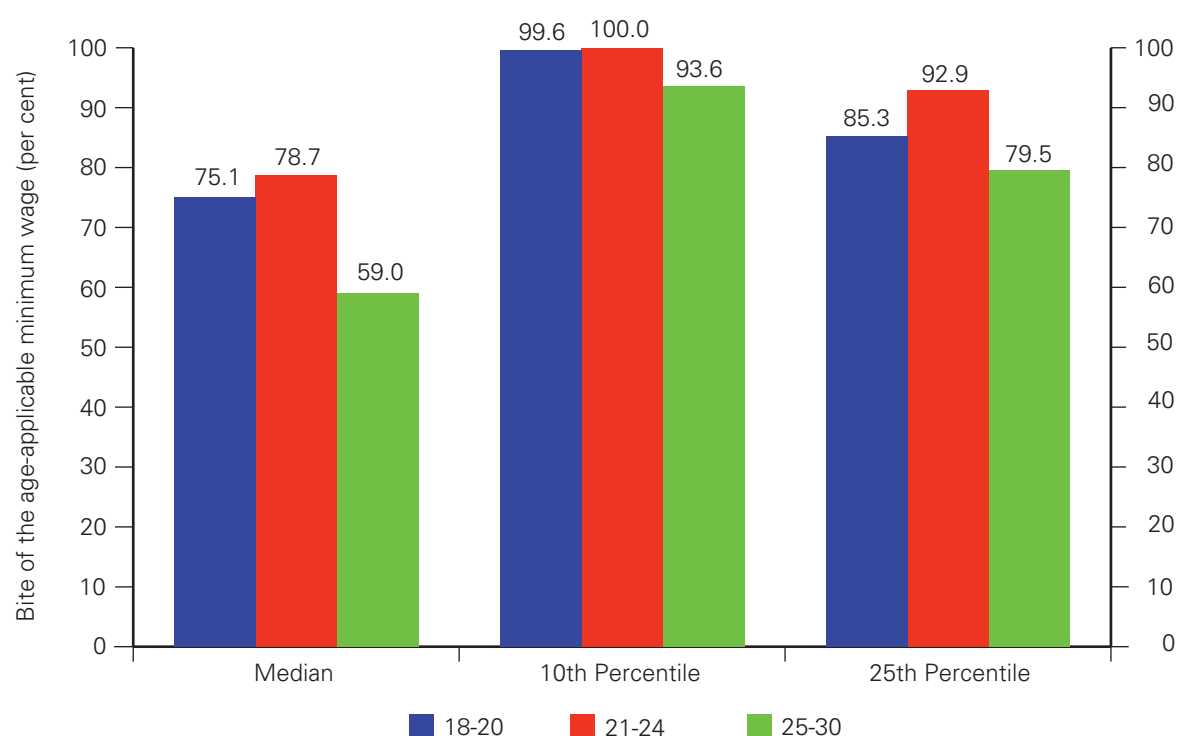
Note: Proportion paid at the NMW based on a 5p band.

- 4.18** Underpayment appears higher if we measure it relative to those covered by the rates (those paid at or below), excluding those paid above the rates – for whom non-compliance with the minimum wage is arguably less relevant. Using this measure, around one in ten 21-24 year old workers (10.1 per cent) were paid below the minimum wage; the proportions were higher among their counterparts aged 18-20 (15.7 per cent) and 25 and over (14.6 per cent).
- 4.19** It should be noted that, of the small number of workers paid below the NMW, it is not possible to establish whether their pay is non-compliant with the minimum wage; for example, it is permissible for employers to deduct some pay per day (currently £5.35) to cover accommodation costs where accommodation is provided by employers. Use of the Accommodation Offset is more common in some sectors, including hospitality.
- 4.20** The relatively low earnings of workers aged 21-24 years has implications when we measure the bite, usually defined as the minimum wage as a proportion of median earnings. We monitor this as a key indicator of minimum wage impact: a high bite at the median could indicate that many employers were already struggling to pay very much above the minimum wage and hence further increases could force some employers to cut jobs or hours.

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4.21 Figure 4.7 shows the bite of the minimum wage at three points in the earnings distribution: at the median; at the lowest decile; and at the lowest quartile. At all three points, the bite of the NMW is much higher for 21-24 year olds than 25-30 year olds, and a little higher than the bite of the YDR for 18-20 year olds. At the median, the bite of the NMW is around 20 percentage points higher for 21-24 year olds than 25-30 year olds. Indeed, at 78.7 per cent compared with 59.0 per cent respectively, it is already well above the Government's 2020 target for workers aged 25 and over of 60 per cent. The bite at the lowest decile is high for all three age groups – around 100 per cent for 18-20 and 21-24 year olds and slightly lower, at 93.6 per cent for 25-30 year olds. However, at the 25th percentile the bite of the NMW is again higher for 21-24 year olds than it is for slightly younger or older workers, and again is closer to the younger than the older group.

Figure 4.7: Bite of the National Minimum Wage at Various Points on the Earnings Distribution, by Age, UK, 2015

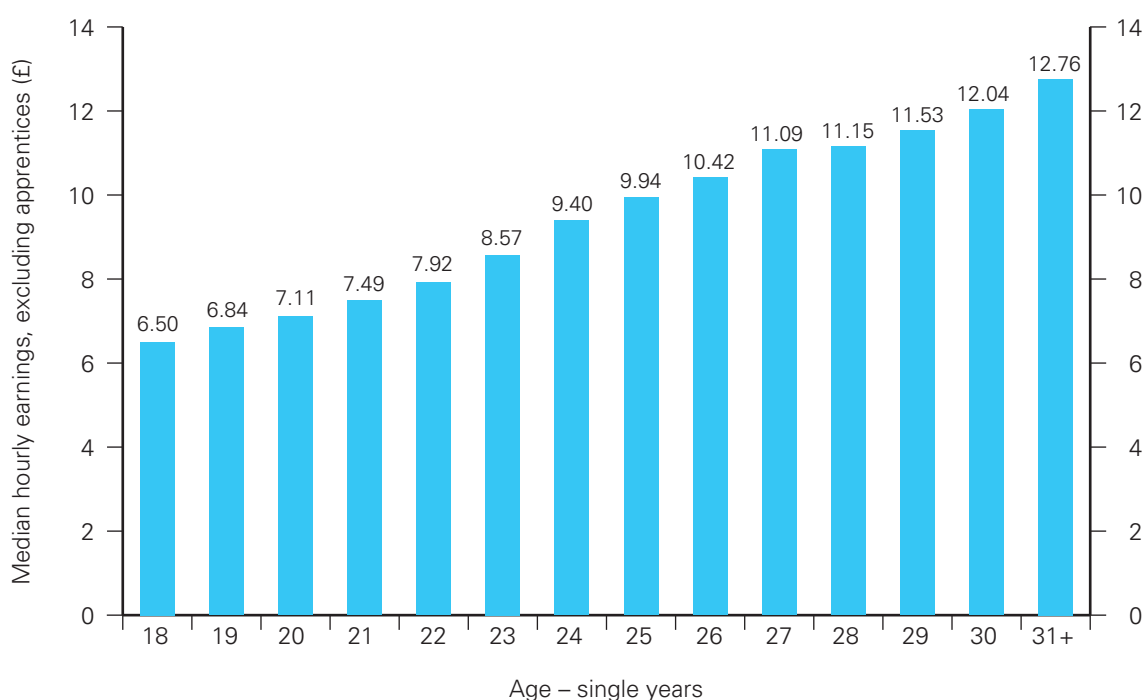


Source: LPC estimates based on ASHE, April 2015, standard weights, including those not on adult rates of pay, excluding apprentices, UK.

4.22 So 21-24 year olds have lower earnings and a higher bite than slightly older workers and both higher earnings and a higher bite than slightly younger workers. But we also need to consider trends across the group, given the aggregate picture might disguise differences within it.

4.23 Figure 4.8 illustrates that median wages increase more or less monotonically with age from 16 through to 30; and, in view of this, 21 year olds look very different to 24 year olds. In April 2015, hourly earnings at the median increased with each year of age, potentially reflecting employer’s willingness to reward skills and experience. Median hourly earnings for 21 year olds (£7.49) were only 38 pence higher than those for 20 year olds (£7.11), despite 20 year olds having the lower wage floor of the YDR, at £5.13 in April 2015 compared with the NMW of £6.50 for 21 year olds. The earnings of 22 year olds were also just 81 pence higher than those of 20 year olds, but median earnings jumped slightly more at 23 years, and again at 24 years. The median hourly earnings of 24 year olds (£9.40) were higher than 20 year olds (£7.11) by £2.29 an hour, and higher than 21 year olds (£7.49) by £1.91 an hour. The difference between 24 year olds and 25 year olds was much smaller, but still apparent, at 54 pence.

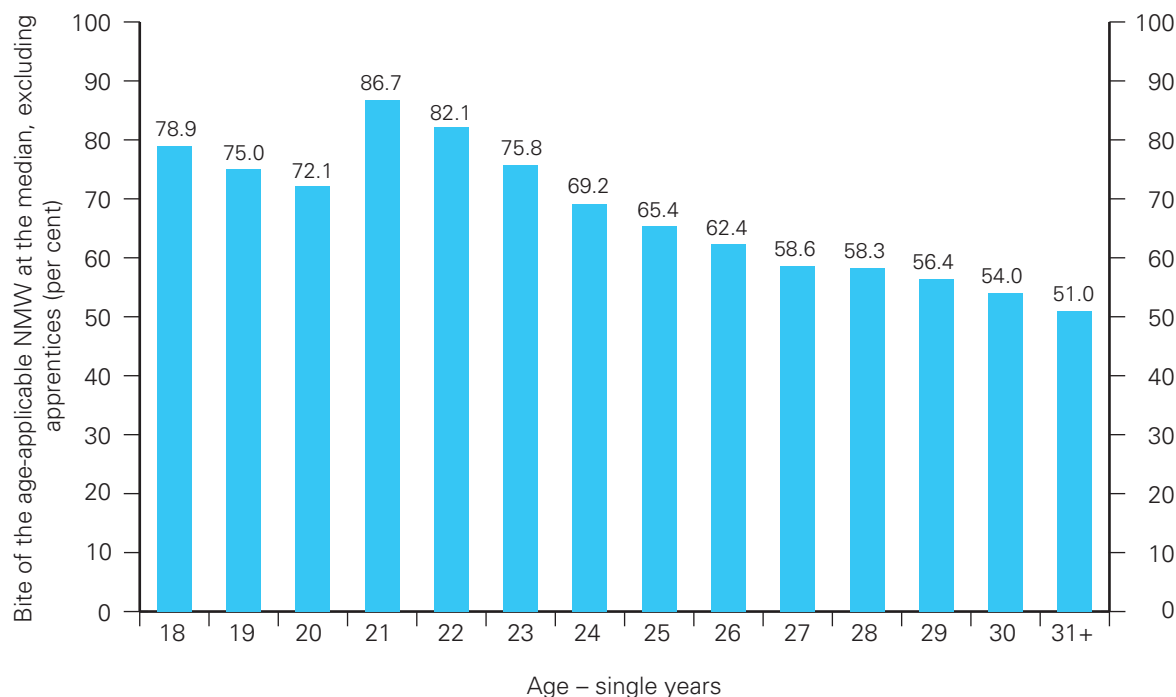
Figure 4.8: Hourly Earnings at the Median, by Age, UK, 2015



Source: LPC estimates based on ASHE, April 2015, standard weights, including those not on adult rates of pay, excluding apprentices, UK.

4.24 The variation in median earnings has implications for the bite. Figure 4.9 shows that the high bite of 78.7 per cent noted earlier for the 21-24 year group as a whole partly reflects the low earnings – and thus much higher bite – of the younger part of the cohort. The bite at the median is much higher for 21 year olds (86.7 per cent) than either 24 year olds (69.2 per cent) or 20 year olds (72.1 per cent). The bite for 21 year olds is higher than the bite for 24 year olds due to their much lower wages; the bite for 21 year olds is higher than the bite for 20 year olds because, while their earnings are similar, 20 year olds have a lower wage floor (the YDR).

Figure 4.9: Bite of the National Minimum Wage at the Median, by Age, UK, 2015



Source: LPC estimates based on ASHE, April 2015, standard weights, including those not on adult rates of pay, excluding apprentices, UK.

4.25 Figure 4.9 also shows that the bite for 21 year olds is higher even than the bite for 18 year olds – the youngest of the YDR cohort. This suggests these workers could be particularly exposed to any pressures arising from the adult rate in future. However, even excluding these workers, the bite for the age group remains high, with 22 and 23 year olds also having bites broadly comparable to those of 18-20 year olds. For 22-24 year olds as a group, the bite is 75.8 per cent, including apprentices; very close to the bite of the YDR for 18-20 year olds (76.2 per cent).

4.26 In order to reach conclusions about the vulnerability of the 21-24 year old cohort we need to consider the evidence over a longer time frame. The next section considers longer term trends in earnings, the bite and employment, to assess the vulnerability – or resilience – of 21-24 year olds to increases in the NMW and to economic shocks.

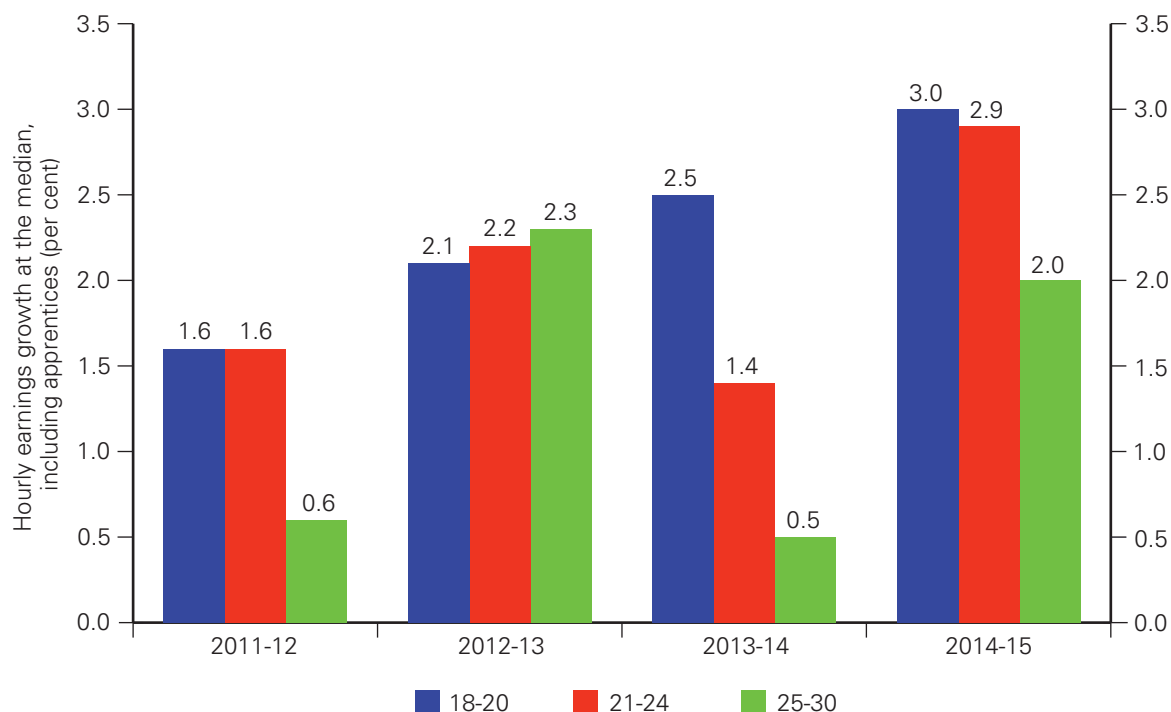
Labour Market and Earnings Trends for the 21-24 Year Old Cohort

Earnings, Bite, and Use of the Rates

4.27 As noted above, workers aged 21-24 have lower pay levels on average than workers just older than them – a fact that, other things being equal, might argue for a more cautious approach in making recommendations about their pay floor than would have applied to all those aged 21 and over. But this depends on how pay is changing as well as its absolute level, and here the data are more encouraging. Figure 4.10 shows that since April 2011 – the aftermath of the recession, and also the first data point after 21 year olds became eligible for the adult rate of the NMW – 21-24 year olds have generally seen higher earnings growth at the median than 25-30 year olds, a trend also seen among 18-20 year olds (although not among 16-17 year olds).¹⁰

4.28 The trend in relative earnings growth is particularly striking in the most recent data. In April 2015, earnings for 21-24 year olds grew by 2.9 per cent at the median, compared with 2.0 per cent for 25-30 year olds (and 1.5 per cent for the population aged 25 and over). If apprentices are excluded, the relative earnings improvement for 21-24 year olds is greater still. Their earnings grew by 3.2 per cent in April 2015 (to £8.26), compared with 2.0 per cent for 25-30 year olds (to £11.01) and 2.9 per cent for 18-20 year olds (to £6.83).

Figure 4.10: Hourly Earnings Growth at the Median, by Age, UK, 2011-2015



Source: LPC estimates based on ASHE: 2010 Methodology, April 2011-2015, standard weights, including those not on adult rates of pay, including apprentices, UK.

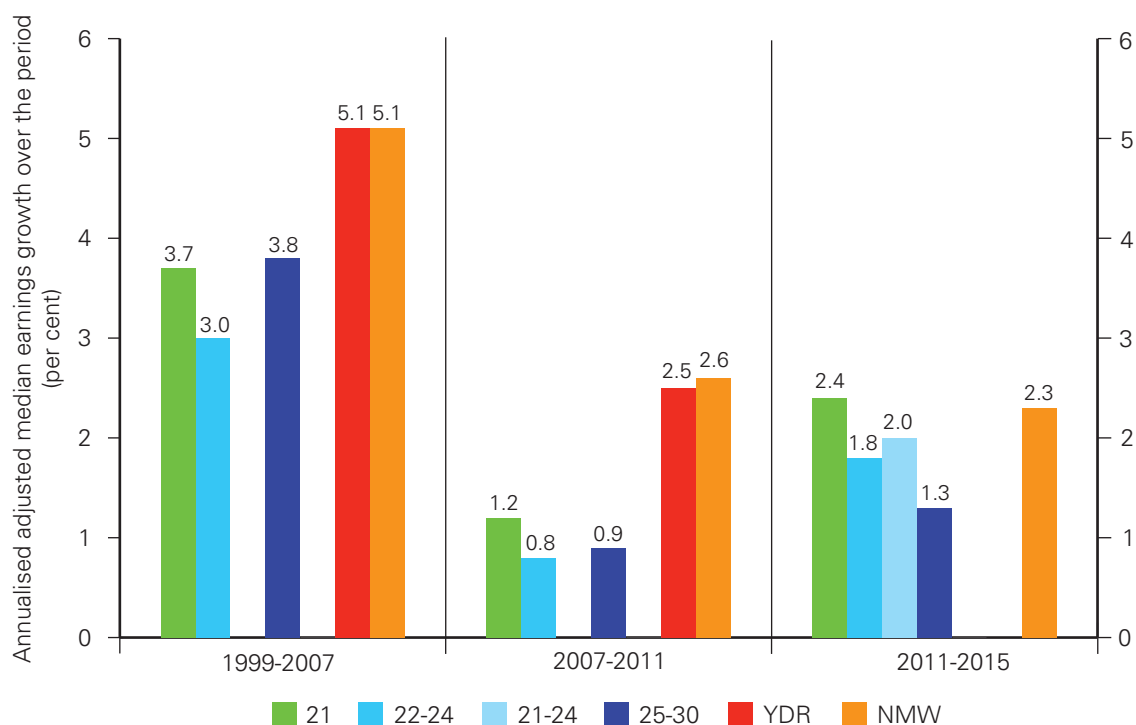
¹⁰ 21 year olds were covered by the YDR (for 18-21 year olds) until October 2010, when they became eligible for the adult rate of the NMW.

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4.29 Figure 4.11 disaggregates nominal earnings data to highlight three distinct periods of annualised earnings growth: from the introduction of the minimum wage to the year before recession (1999-2007); through recession (2007-2011); and in recovery from 2011 when 21 year olds also became eligible for the adult rate of the NMW (2011-2015). Looking first at the most recent period, it is clear that annualised earnings growth over the period 2011-2015 was higher for 21-24 year olds (2.0 per cent) than 25-30 year olds (1.3 per cent), reflecting the year-on-year earnings growth patterns discussed previously. However, it also nuances the picture on 21 year olds.

4.30 In particular, where we noted earlier that low levels of pay for 21 year olds reduced the average bite for workers aged 21-24, workers of this age have had sustained relatively stronger growth in pay. Indeed, annualised earnings growth for 21 year olds from 2011 to 2015 was higher than for 22-24 year olds (2.4 per cent compared with 1.8 per cent respectively). Hence the average rate of growth for 21-24 year olds was pulled up by 21 year olds, despite them being the lowest earning part of the cohort. Earnings growth for 21 year olds also exceeded the growth in the NMW over the same period (2.3 per cent).

Figure 4.11: Annualised Adjusted Earnings Growth at the Median and Growth of the National Minimum Wage, by Age, UK, 1999-2015



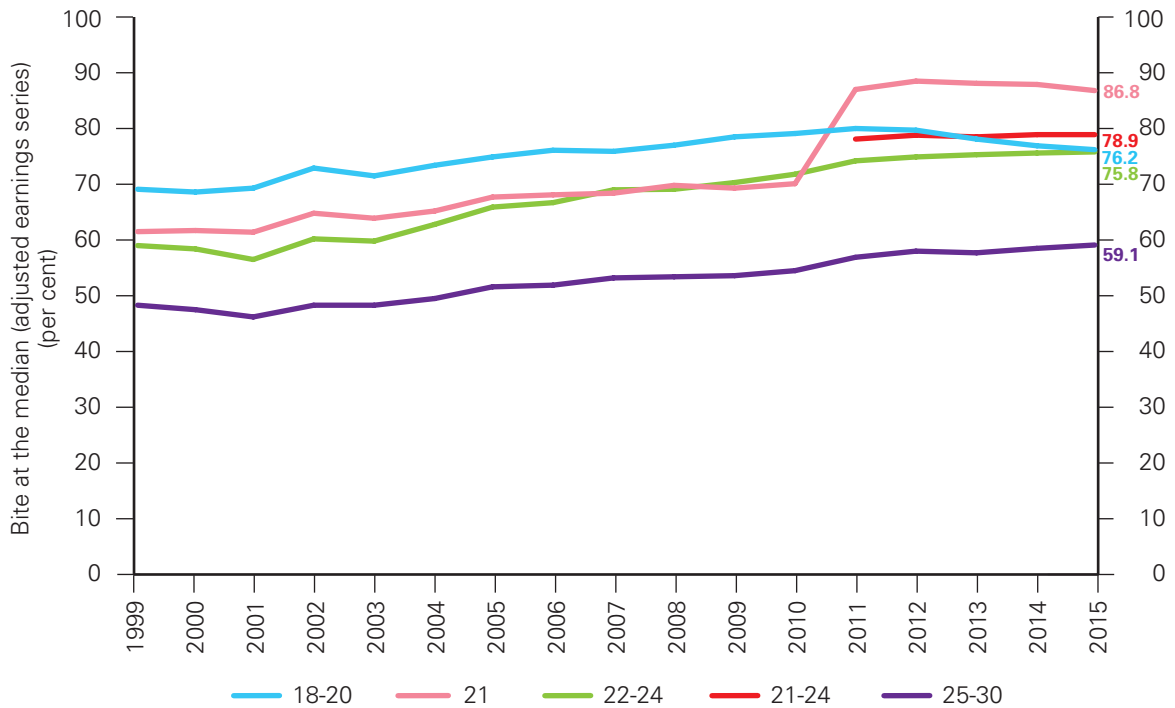
Source: LPC estimates based on ASHE: without supplementary information, April 1999-2003; with supplementary information, April 2004-2005; 2007 methodology, April 2006-2010; and 2010 methodology, April 2011-2015, standard weights, including those not on adult rates of pay, UK.

Notes:

- Earnings data are adjusted for a consistent time series.
- Data include apprentices.
- Data for the YDR are shown for 1999-2011, as 21 year olds were covered by the YDR. From October 2010 21 year olds were eligible to be paid the adult rate of the NMW.

- 4.31** Looking back over the two earlier periods shows that earnings growth for 21 year olds also exceeded that of 22-24 year olds when the former group were covered by the YDR rather than the adult rate of the NMW – and when the two minimum wage rates grew at a similar level. Figure 4.11 shows that earnings growth for 21 year olds was greater than both 22-24 year olds and 25-30 year olds during recession – annualised earnings growing by 1.2 per cent, 0.8 per cent and 0.9 per cent respectively between 2007 and 2011.
- 4.32** However, despite relatively high earnings growth for 21 year olds across the three periods, growth in the YDR and adult rate of the NMW was generally higher than earnings growth for all groups (with the one exception of earnings growth for 21 year olds in the most recent period). It follows therefore that the bite of the NMW increased over the same period because the growth in median earnings lagged increases in the minimum wage.
- 4.33** Figure 4.12 shows that the bite of the NMW was highest for 21 year olds in April 2015, at 86.8 per cent, despite their greater earnings growth. It also shows that the bite for 21 year olds jumped from 69.2 per cent in April 2010 to 85.8 per cent in April 2011 when 21 year olds became eligible for the adult rate of the NMW. However, as noted above, the bite is still high for 22-24 year olds and, as shown here, has also increased since April 2011, while the bite for the YDR has fallen since April 2012 (reflecting a period of improved earnings growth for 18-20 year olds alongside more cautious increases in the YDR).
- 4.34** Equally, Figure 4.12 demonstrates that, despite lower earnings growth in recent years, the bite for 25-30 year olds (59.1 per cent in April 2015) remains considerably below the bite for younger workers. If the bite indicates the degree to which employers are able to sustain higher increases in the minimum wage without incurring job loss, the data suggest that there is greater scope to increase the minimum wage for 25-30 year olds than for younger workers.

Figure 4.12: Bite of the National Minimum Wage at the Median of the Hourly Earnings Distribution, by Age, UK, 1999-2015



Source: LPC estimates based on ASHE: without supplementary information, April 1999-2003; with supplementary information, April 2004-2005; 2007 methodology, April 2006-2010; and 2010 methodology, April 2011-2015, standard weights, including those not on adult rates of pay, UK.

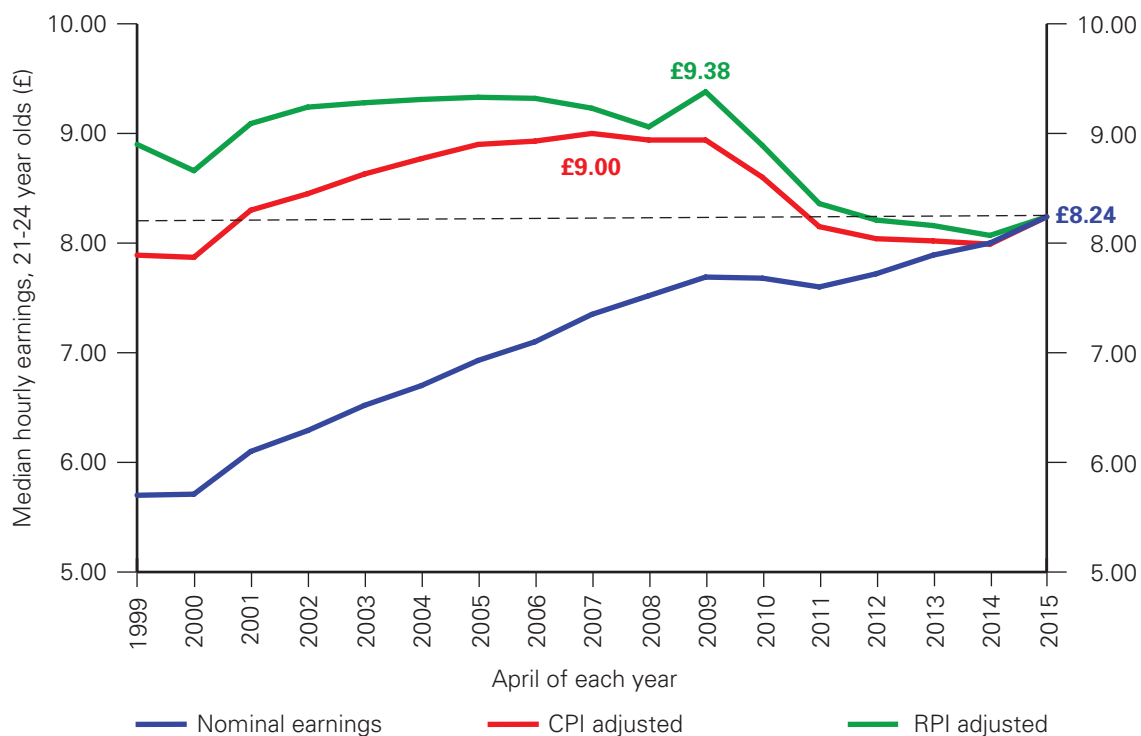
Notes:

- a. Earnings data are adjusted for a consistent time series.
- b. Data include apprentices.

Real Earnings

4.35 Figure 4.13 shows that hourly earnings also grew for 21-24 year olds in real terms in April 2015 – by 24 pence an hour (3.0 per cent) using CPI and by 16 pence an hour (2.0 per cent) using RPI. However, they remain 12.2 per cent below their peak value in 2009 using RPI (£9.38); and 8.5 per cent below their peak value in 2007 using CPI (£9.00). This is nearer than for 25-30 year olds, who are about 12 per cent below their CPI peak, but farther than for 18-20 year olds, who are about 6 per cent below their CPI peak.

Figure 4.13: Nominal and Real Level of Median Earnings for 21-24 Year Olds, by Price Index, UK, 1999-2015



Source: LPC estimates based on ONS data, CPI (D7BT) and RPI (CHAW), April 1999-2015, monthly, and ASHE: without supplementary information, April 1999-2003; with supplementary information, April 2004-2005; 2007 methodology, April 2006-2010; and 2010 methodology, April 2011-2015, standard weights, including those not on adult rates of pay, UK.

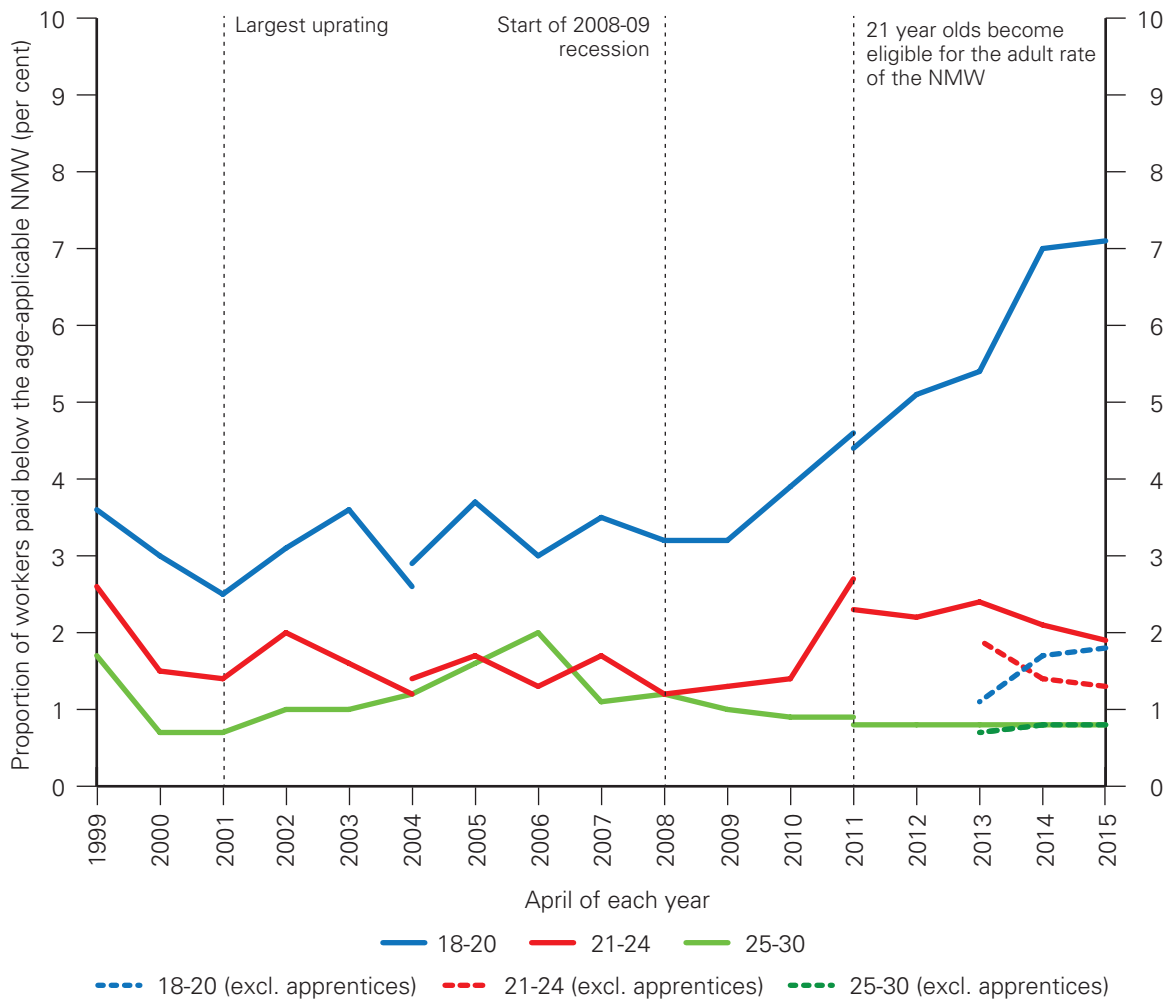
Notes:

- a. Earnings data are adjusted for a consistent time series.
- b. Data include apprentices.

Coverage of the National Minimum Wage for 21-24 Year Olds

- 4.36** Payment below the minimum wage in 2015 was considered earlier in this chapter: as noted then, a high proportion earning less than the minimum wage could suggest rates are too high for some firms. Younger workers are still more likely than 25-30 year olds (0.8 per cent) to be paid below their applicable minimum wage, but the proportions are relatively small for both 21-24 year olds (1.3 per cent) and 18-20 year olds (1.8 per cent). Figure 4.14 extends this analysis by showing the proportion of workers paid below their applicable rate between 1999 and 2015. The trend from 1999 includes both workers and apprentices as it was not possible to identify apprentices in ASHE prior to April 2013. The relatively high proportion of 18-20 year olds paid below the YDR, rising to around 7 per cent in April 2015, is largely explained by the inclusion of apprentices; once they are excluded, the proportion of workers paid below their rates falls considerably.
- 4.37** Furthermore, the data suggest that the proportion of 21-24 year olds paid below the NMW has fallen since 2013; if this trend continues they could soon be no more likely than 25-30 year olds to be paid below the NMW (indeed, the introduction of the NLW may see the proportion of 25-30 year olds paid below their applicable minimum wage rising from April 2016, an issue discussed in more detail in Chapter 8 on compliance and enforcement of the minimum wage).

Figure 4.14: Percentage of Workers Paid Below Their Applicable Minimum Wage, UK, 1999-2015



Source: LPC estimates based on ASHE: without supplementary information, April 1999-2003; with supplementary information, April 2004-2005; 2007 methodology, April 2006-2010; and 2010 methodology, April 2011-2015, low pay weights, including those not on adult rates of pay, UK.

Notes:

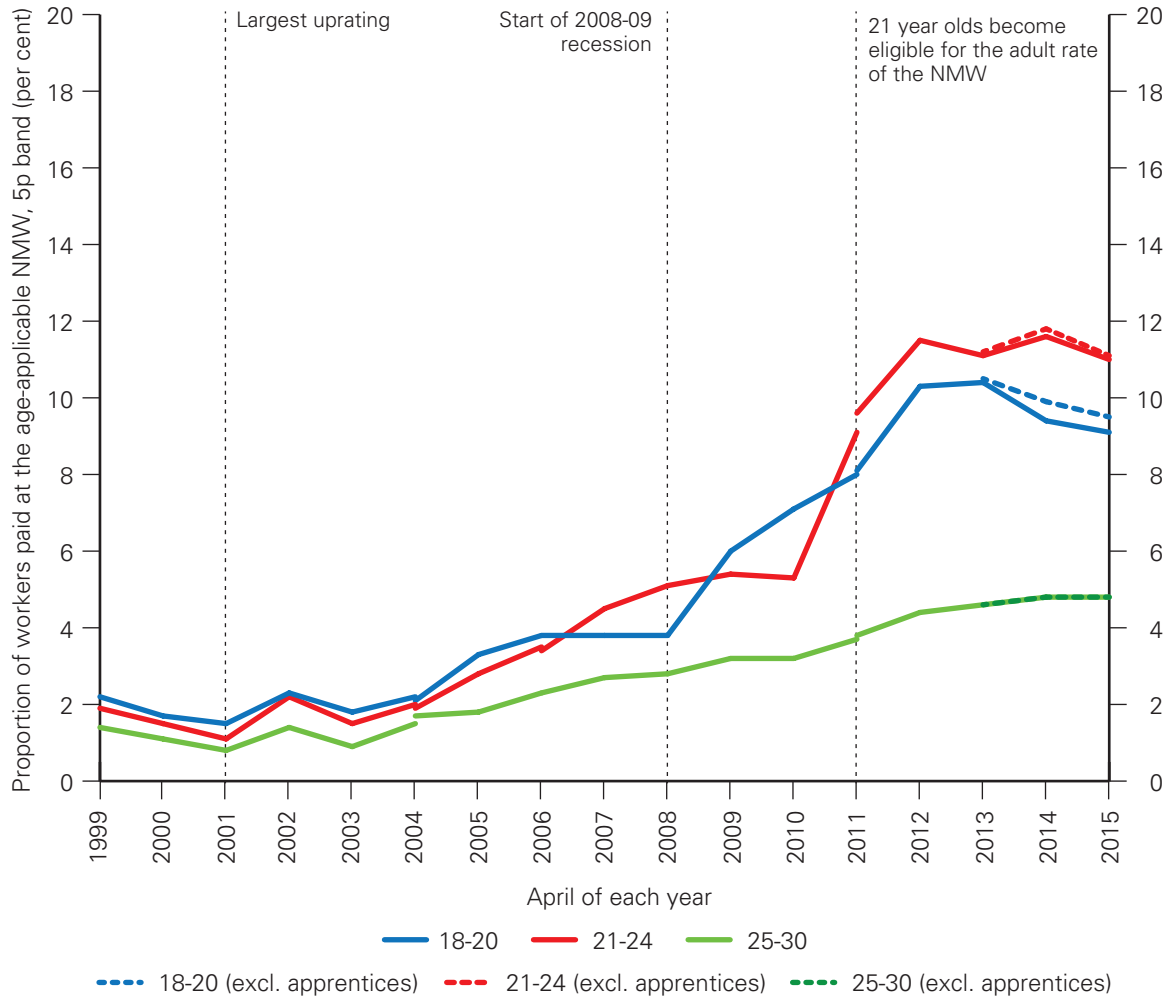
- a. Direct comparisons before and after 2004, 2006 and 2011 should be made with care due to changes in the data series.
- b. Data include apprentices unless specified.

4.38 As above, we also consider the extent to which employers use the rates to pay their workers. A higher proportion of 21-24 year olds paid at their minimum wage, compared with older workers, could suggest that there is reduced willingness among employers to pay 21-24 year olds above the NMW relative to other age groups and therefore that increases in the NMW may have greater employment effects.

4.39 Figure 4.15 shows that the proportion of 21-24 year olds paid at their applicable minimum wage rate, at 11.1 per cent excluding apprentices, was more than twice that of 25-30 year olds (4.8 per cent), and greater than the proportion of 18-20 year olds paid at the YDR (9.5 per cent) in April 2015. Looking over time, coverage has long been higher for younger workers than those aged 25-30, with 21-24 year olds nearer to 18-20 year olds. Historically, 21-24 year olds were less likely than 18-20 year olds to be paid at the NMW prior to 2007 – the proportion of 21-24 year olds paid at the NMW has doubled since 2010 when 21 year olds became eligible for the higher adult rate of the NMW. However, the data also suggest that

the proportion of 21-24 year olds paid at the NMW fell slightly between 2014 and 2015, while remaining stable for 25-30 year olds.

Figure 4.15: Percentage of Workers Paid At Their Applicable Minimum Wage, by Age, UK, 1999-2015



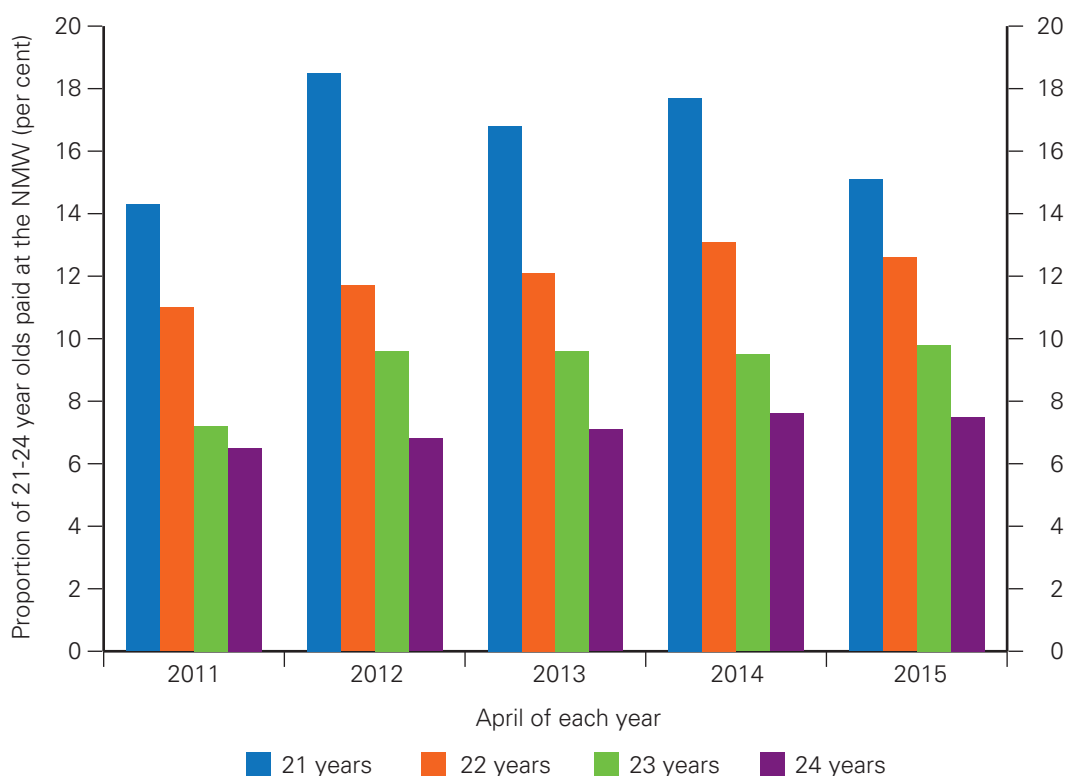
Source: LPC estimates based on ASHE: without supplementary information, April 1999-2003; with supplementary information, April 2004-2005; 2007 methodology, April 2006-2010; and 2010 methodology, April 2011-2015, low pay weights, including those not on adult rates of pay, UK.

Notes:

- a. Based on a 5p band.
- b. Direct comparisons before and after 2004, 2006 and 2011 should be made with care due to changes in the data series.
- c. Data include apprentices unless specified.

4.40 Figure 4.16 further demonstrates that the relatively high proportion of 21-24 year olds paid at the NMW is not just an effect arising from 21 year olds. In April 2015, the proportion of 22 year olds paid at the NMW (12.6 per cent) was only slightly lower than the proportion among 21 year olds (15.1 per cent). The proportion of 24 year olds paid at the NMW (7.5 per cent) was half that of 21 year olds, albeit the proportion of 24 year olds paid at the NMW had increased year-on-year since April 2011, when it was just 6.5 per cent.

Figure 4.16: Proportion of 21-24 Year Olds Paid At the National Minimum Wage, by Age, UK, 2011-2015



Source: LPC estimates based on ASHE: 2010 methodology, April 2011-2015, low pay weights, including those not on adult rates of pay, UK.

Notes:

- a. Based on a 5 pence band.
- b. Data include apprentices.

4.41 Together, the higher bite for 21-24 year olds, and the higher proportion paid at the minimum wage, suggest the potential for greater job loss arising from increases in the minimum wage for this age group than for older workers. However, we also need to examine trends in employment for 21-24 year olds, to test whether there have been negative employment effects to date.

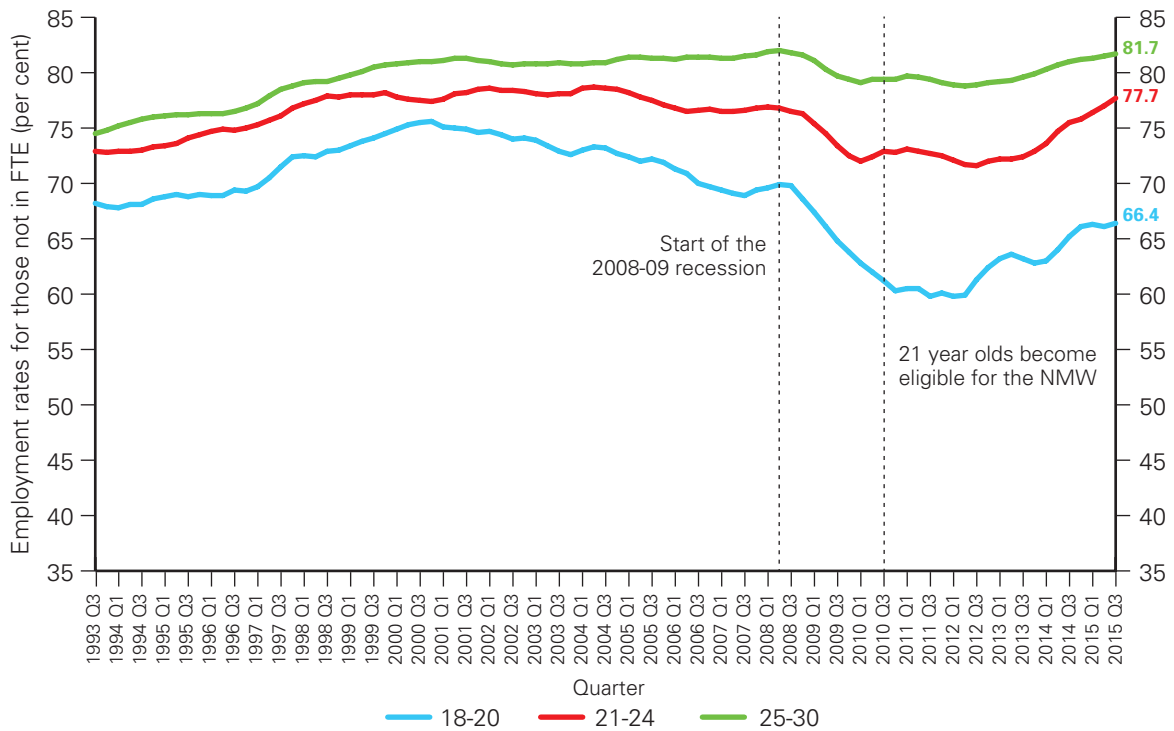
Labour Market Participation, Employment, and Not in Education, Employment, or Training

4.42 In addition to looking at the impact of the NMW on earnings, employment and unemployment data remain the critical test of the ability of the labour market to sustain increases in the NMW. As noted above, the Commission puts particular weight on the labour market outcomes for young people not in full-time education (FTE), for whom the alternatives to employment are either unemployment or inactivity, and hence are more concerning than for their counterparts in FTE who are acquiring new qualifications and skills. So we focus on this labour market indicator for this part of our analysis.

4.43 Figure 4.17 shows the employment rate for those not in FTE from the third quarter of 1993. The long-term trend reflects the 2015 pattern described earlier in this chapter: employment rates increase with age for these cohorts, with the rates for 21-24 year olds generally closer to those of 25-30 year olds than 18-20 year olds (excepting a brief period near the Millennium). However, the gaps widened substantially, most visibly following the start of the recession in 2008, with a strong age relationship; 18-20 year olds were much less resilient than 21-24 year olds, who were in turn less resilient than 25-30 year olds. The widening gap however actually begins pre-recession. The employment rate for 21-24 year olds fell away from 25-30 year olds from the mid-2000s, possibly reflecting a slowdown in retail and hospitality prior to the 2008 recession. The employment rate for 18-20 year olds diverged from around 2000.

4.44 The picture in recovery also reflects these variations. The employment rate marginally picked up for both 21-24 year olds and 25-30 year olds from the beginning of 2010, but not for 18-20 year olds. While 18-20 year olds had a sharp, albeit staggered, improvement from 2012, they have been outpaced by 21-24 year olds since 2014. By the third quarter of 2015 the employment rate of 21-24 year olds had recovered from the effects of recession – including an improvement of 2.3 percentage points over the year – but it had not recovered from the mid-2000s divergence from 25-30 year olds. Employment rates for 18-20 year olds saw less improvement over the year (up 1.2 percentage points), and still remain well below pre-recession levels.

Figure 4.17: Employment Rates of Those Not in Full-time Education, by Age, UK, 1993-2015

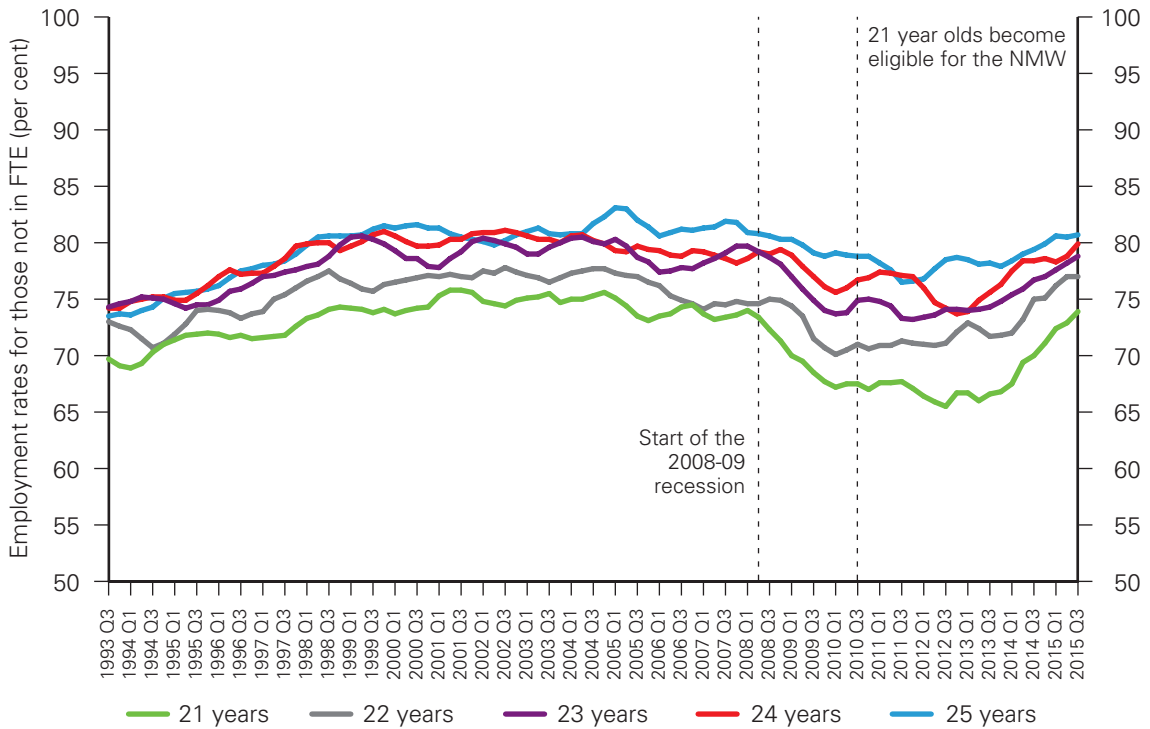


Source: LPC estimates based on LFS Microdata, quarterly, four-quarter moving average, UK, Q4 1992-Q3 2015.

National Minimum Wage

- 4.45** One important test case for the effects of sharp changes in the wage floor is the change that occurred in 2010, when 21 year olds became eligible for the adult rate of the NMW rather than the Youth Development Rate – a 22.8 per cent increase in their pay, from £4.83 to £5.93. Here the evidence is mixed. On the one hand, data do not indicate a decline in the employment rate of 21-24 year olds of the kind that might have been predicted: while their employment rate dipped slightly in 2011 a similar dip was also observed among 25-30 year olds. Dickens, Riley and Wilkinson (2010) explored the effect of 22 year olds becoming eligible for the adult rate of the NMW and also found no negative employment effects, although there was some evidence of a reduction in hours worked by 21 year olds. It is not possible to establish whether the reduction in hours was employer-led or represented a decision by young workers – some of whom will have been in FTE – to reduce their hours once their pay improved.
- 4.46** Looking specifically at 21 year olds, Figure 4.18 illustrates the absence of negative employment effects in 2011; on the contrary their employment rates, which had been falling, stabilised at around 67 per cent through 2010 until the third quarter of 2011, before beginning to fall again. However, Figure 4.17 also highlights the variation within the 21-24 year old cohort, something relevant to thinking about the pay floor in that its level needs to be affordable across the group.
- 4.47** Just as with pay, employment rates of 24 year olds are close to 25 year olds, while employment rates of 21 year olds are on average around 6 to 7 percentage points lower than 24 and 25 year olds respectively – and around 8 to 10 percentage points lower on average than 24 and 25 year olds respectively since the beginning of recession in the second quarter of 2008. The positive association between age and employment rates is more distinctive for 21 and 22 year olds than 23-25 year olds. Once again, younger workers by year have higher volatility, with bigger apparent cyclical effects, but they have also seen notable improvement in the recent period. The employment rate for 21 year olds not in FTE rose by 3.9 percentage points in the third quarter of 2015, compared with an increase of 1.5 percentage points among 24 year olds.

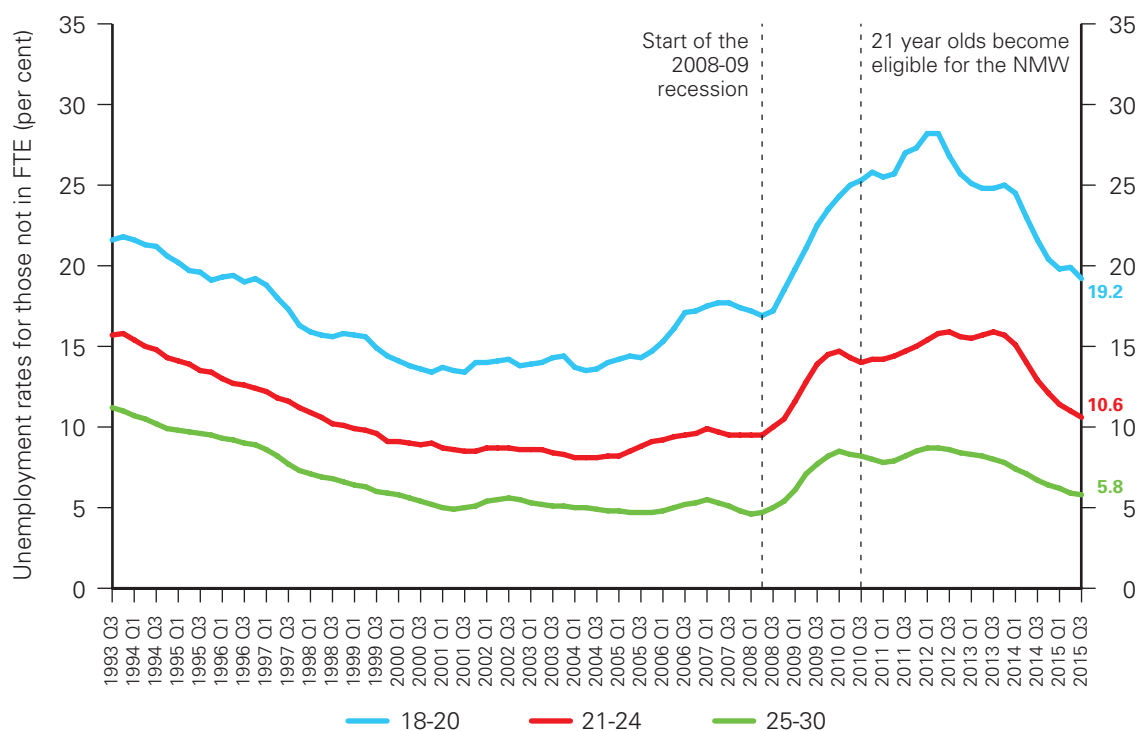
Figure 4.18: Employment Rates of 21-25 Year Olds Not in Full-time Education, by Age, UK, 1993-2015



Source: LPC estimates based on LFS Microdata, quarterly, four-quarter moving average, UK, Q4 1992-Q3 2015.

4.48 Unemployment rates of those not in FTE show similarities with patterns of employment rates. Figure 4.19 suggests that the unemployment rate of those not in FTE decreases with age, with much higher levels for 18-20 year olds than 21-24 year olds, who in turn have distinctly higher rates than 25-30 year olds (albeit the position of 21-24 year olds not in FTE is closer to that of 25-30 year olds than that of 18-20 year olds). Sensitivity to unemployment also varies by age, with unemployment for 21-24 year olds not in FTE rising faster in the recession than that of 25-30 year olds and taking more time to begin recovering, if falling more sharply once improvement was underway. The unemployment rate of 18-20 year olds not in FTE rose fastest of all in the recession and their recovery lagged that of 21-24 year olds. Unemployment rates for those not in FTE are now falling for all groups, with the improvement for 21-24 year olds, down 2.2 percentage points over the year, outpacing 25-30 year olds (down 0.9 percentage points). However, the unemployment rate for 21-24 year olds remains above that pre-recession, and the gap relative to 25-30 year olds has not returned to the mid-2000s levels.

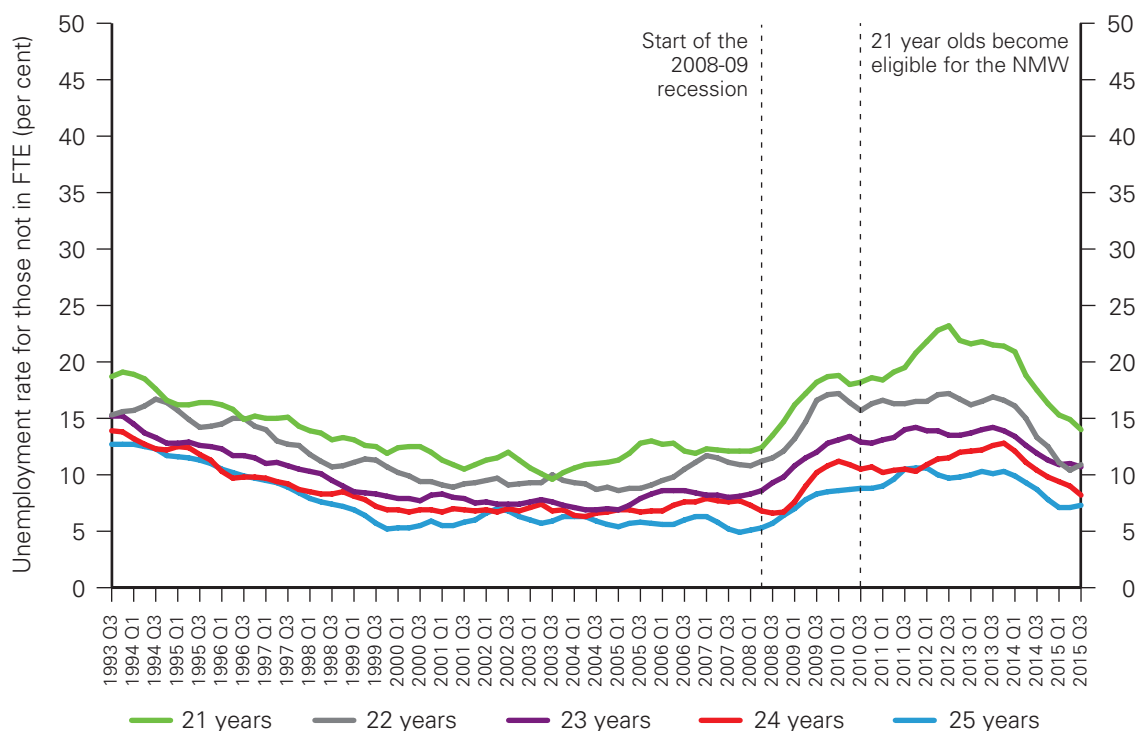
Figure 4.19: Unemployment Rates of Those Not in Full-time Education, by Age, UK, 1993-2015



Source: LPC estimates based on LFS Microdata, quarterly, four-quarter moving average, UK, Q4 1992-Q3 2015.

- 4.49** Looking within the 21-24 year old cohort, Figure 4.20 shows that the unemployment rate of 21 year olds remained around 18 per cent from the second quarter of 2010 (18.0 per cent) through to the first quarter of 2011 (18.4 per cent) before rising steeply through to the third quarter of 2012 (23.2 per cent), and falling thereafter. The upturn from the middle of 2011 could be evidence of a delayed reaction to 21 year olds becoming eligible for the adult NMW (from October 2010). However, as noted above, a similar upturn was observed among 23 and 25 year olds who did not experience a change in the minimum wage floor. Together with the research on employment effects cited previously (Dickens, Riley and Wilkinson, 2010) the data suggest that the move to the NMW did not harm the employment of 21 year olds, albeit – as noted earlier – there may have been a reduction in the number of hours worked.
- 4.50** Figure 4.20 also demonstrates the variation within the 21-24 year old cohort, on unemployment as with employment. Unemployment rates of 24 year olds are close to those of 25 year olds, while unemployment rates of 21 year olds are, as observed with employment rates, on average around 6 to 7 percentage points higher than those of 24 and 25 year olds respectively. And as with employment, the gap between 21 year olds and 24 and 25 year olds widened over the course of the recession to 8 to 10 percentage points. However, while 21 year olds have a higher unemployment rate than their counterparts aged 22-24, rising steeply in recession, their unemployment rate has improved notably in the recent period, falling by 3.5 percentage points over 2015.

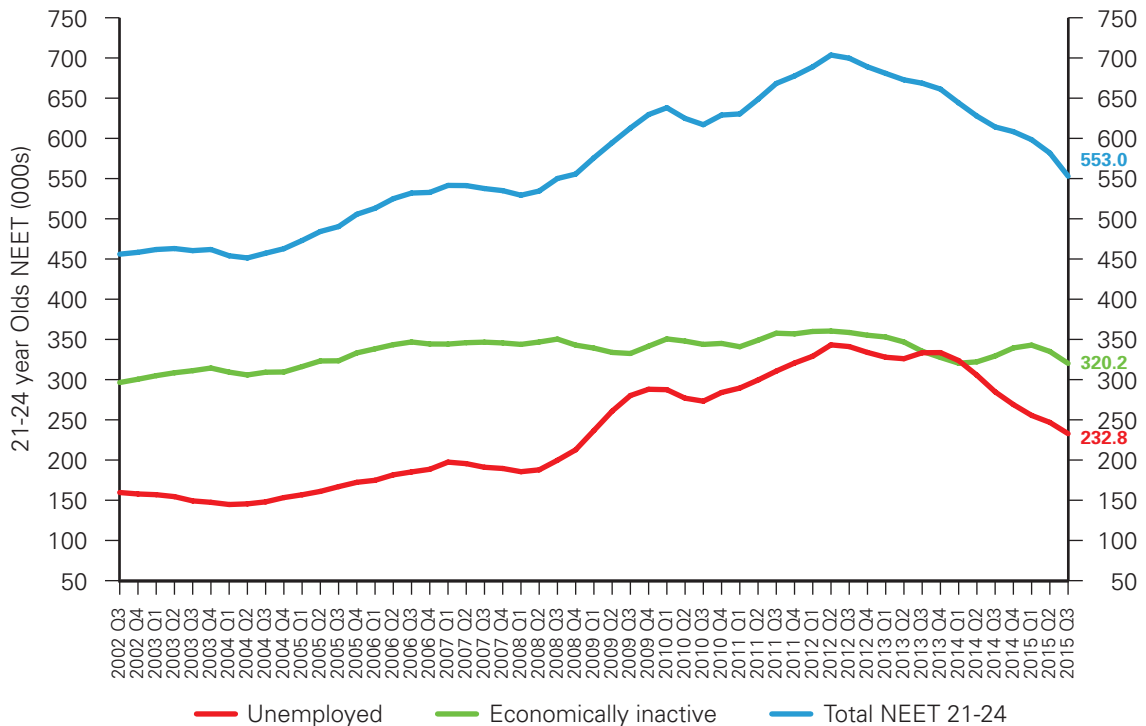
Figure 4.20: Unemployment Rates of 21-25 Year Olds Not in Full-time Education, by Age, UK, 1993-2015



Source: LPC estimates based on LFS Microdata, quarterly, four-quarter moving average, UK, Q4 1992-Q3 2015.

- 4.51** Overall, the disaggregated data show a mixed picture. They increase concerns that the younger part of the 21-24 year old cohort may be particularly vulnerable to economic shocks and any negative consequences of NMW decisions. In the event that jobs were lost – either as a result of the NMW or the NLW – 21 year olds look most exposed. However, they also show fast employment growth and falling unemployment for 21 year olds more recently, potentially consistent with an ability to bear a higher pay floor.
- 4.52** The number of 21-24 year olds not in education, employment or training (NEET) reinforces the picture of improving labour market performance. The NEET group differs to those not in FTE in that it contains only those that are unemployed or inactive, so does not include young people engaged in part-time study. We look here only at the 21-24 year old group, rather than the comparative picture.
- 4.53** As Figure 4.21 demonstrates, the number of 21-24 year olds NEET started rising from the mid-2000s, reaching a peak of around 700,000 in the second quarter of 2012, before falling steadily to around 553,000 by the third quarter of 2015. While the economically inactive group increased slightly from the mid-2000s, the majority of the increase, and subsequent fall in the NEET population was among the unemployed, which rose to 343,000 in the second quarter of 2012 before falling to around 233,000 in the third quarter of 2015, including a fall over the year of around 50,000. While the NEET data indicate that the unemployed group increased from around the third quarter of 2010 – when 21 year olds became eligible for the adult rate of the NMW – we previously observed a similar increase among slightly younger and older groups, none of which experienced a change in the wage floor.

Figure 4.21: 21-24 Year Olds Not in Education, Employment or Training (NEET), by Activity, UK, 2002-2015



Source: LPC estimates based on ONS NEET data, four-quarter moving average, UK, Q4 2001-Q3 2015.

4.54 While the number NEET is still higher than at the start of the series in 2002, this reflects population growth over the period. The proportion NEET in the third quarter of 2015 (16.0 per cent) had returned to the proportion observed in the third quarter of 2002 (15.9 per cent).

The Labour Market, Substitution, and Absolute and Relative Pay

4.55 Together the labour market data suggest that 21-24 year olds as a group are distinct in labour market terms from slightly older and younger workers in relation to both their employment levels and their degree of sensitivity to cyclical trends. They were resilient to the increase in the wage floor for 21 year olds, and proved more resilient in the labour market than younger workers to the economic shock caused by the recession. The data also demonstrate an improvement in recent years in the proportion of 21-24 year olds in employment, unemployment and the number and proportion NEET. Indeed, their situation is improving faster than both groups either side.

4.56 However, just as with earnings, labour market data highlight the increased vulnerability of the 21-24 year old cohort to economic shocks relative to older workers, with the younger part of the cohort performing worse than 25-30 year olds during the recession and their position remaining some way short of fully recovering to pre-recession (and especially early-2000) levels. This may imply increased exposure to negative employment effects arising from the NLW, in the event that employers respond to the NLW by cutting jobs or freezing recruitment.

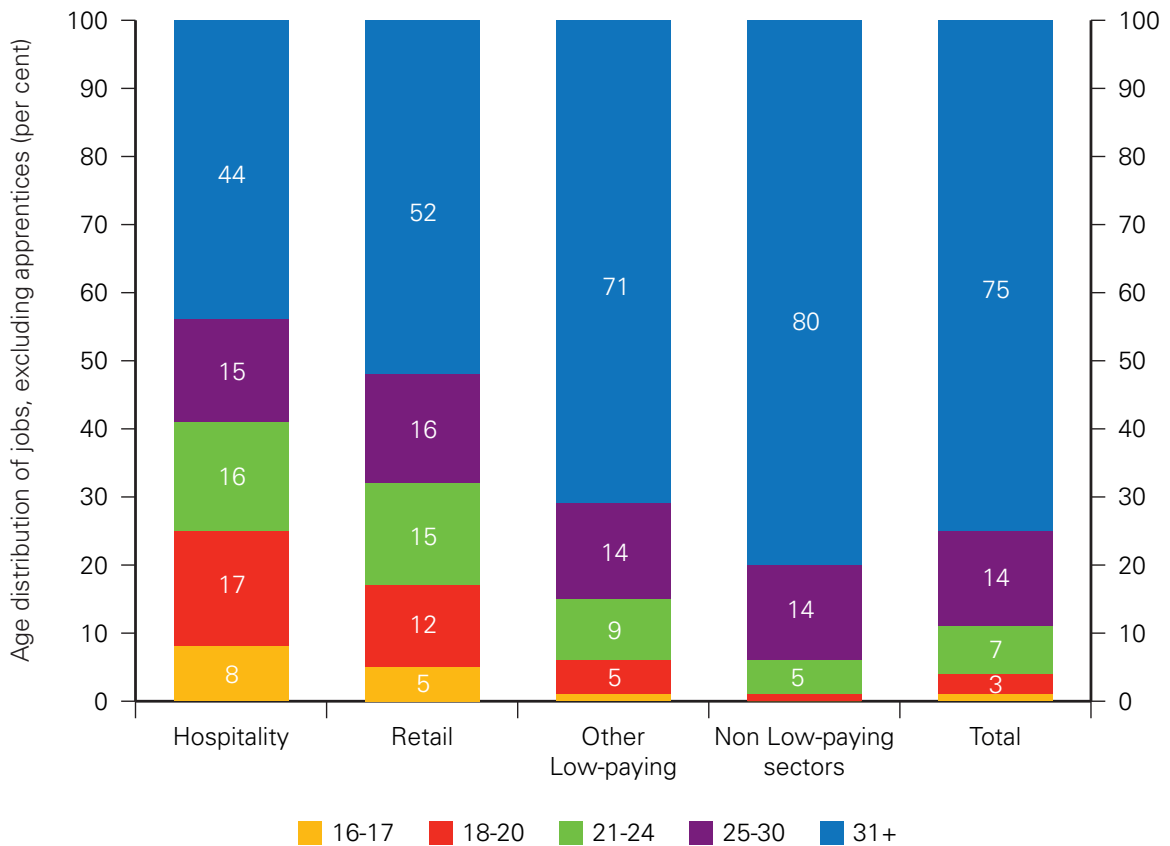
4.57 Another strategy that employers could adopt to cope with increases in the NMW or the NLW would be to substitute between older and younger workers. This could potentially

disadvantage 21-24 year olds if more employers switch to employing 18-20 year olds, where the lower wage floor of the YDR applies. Equally, 21-24 year olds could gain in employment terms if employers switch to hiring more of them, rather than workers aged 25 and over, as the NLW progresses on the path to the 2020 target.

4.58 Figure 4.22 demonstrates, as noted earlier, that in April 2015 21-24 year olds accounted for 7 per cent of all jobs but around 1 in 6 low-paying jobs in hospitality (16 per cent) and retail (15 per cent). However, similar proportions of low-paying hospitality and retail jobs were occupied by 18-20 year olds – 17 per cent of low-paying jobs in hospitality and 12 per cent of jobs in retail – and similar proportions of these jobs were also held by 25-30 year olds (15 per cent of hospitality jobs and 16 per cent of retail jobs).

4.59 In addition to possible substitution, the reliance of 21-24 year olds on part-time jobs places them at additional risk if employers decide to cut hours rather than jobs (assuming that it is easier to cut hours for part-time staff).

Figure 4.22: Jobs in Retail, Hospitality, Other Low-paying and Non Low-paying Occupations, by Age, UK, 2015



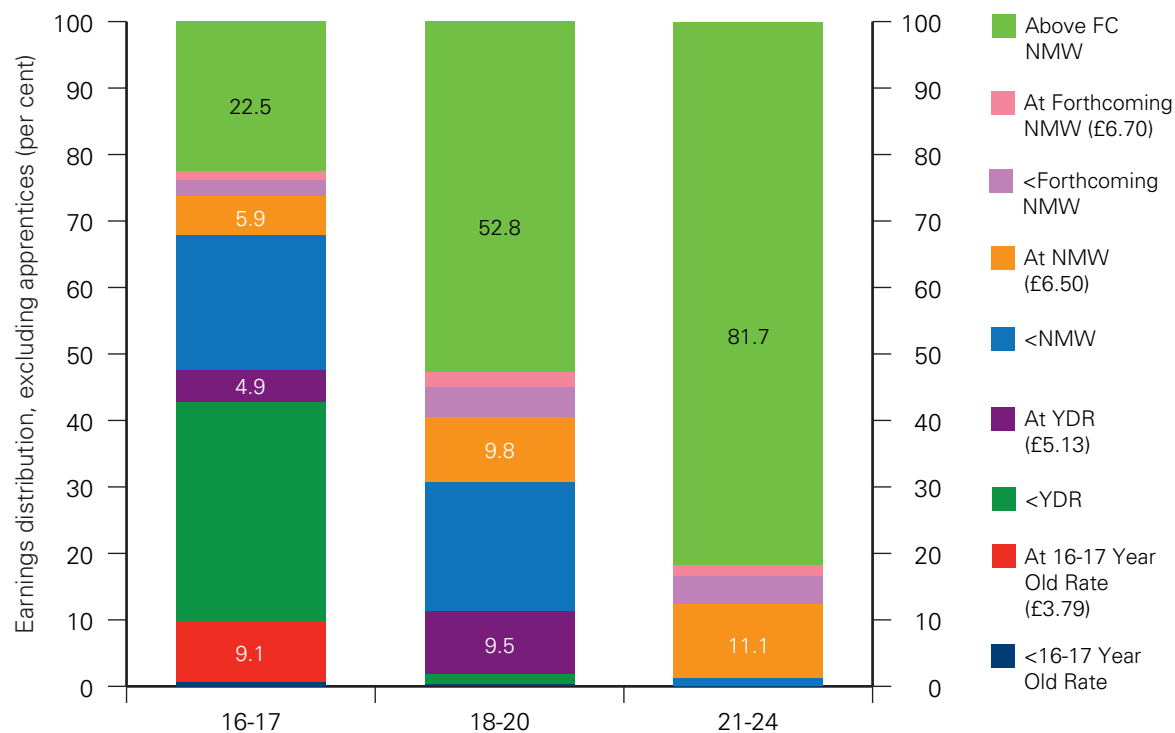
Source: LPC estimates based on ASHE: 2010 Methodology, April 2015, standard weights, including those not on adult rates of pay, excluding apprentices, UK.

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4.60 Evidence from stakeholders highlights considerable uncertainty regarding the likely responses of employers to the forthcoming increases in the NLW. Chapter 7 considers the evidence in detail but few employers have said to us in evidence that they are considering substituting between workers and some highlighted practical, legal and ethical challenges in attempting differentiation. Equally a number of employers and employer representatives argued that a lower pay floor for workers aged 21-24 remained an important flexibility. Some employers warned of wider responses to the NLW including adjustments to the wider reward package, possible job losses and/or reduced hours.

4.61 While the NLW could present risks to jobs or hours it is also probable that some 21-24 year olds will gain in higher hourly earnings. Historically a minority of employers have used the youth rates to pay young workers. Figure 4.23 shows that in April 2015 the proportion of 16-17 and 18-20 year olds paid at a minimum wage above their own rate exceeded the proportion paid at their legal minimum. Among 16-17 year olds, 10.8 per cent were paid either at the YDR (4.9 per cent) or adult rate of the NMW (5.9 per cent) compared with 9.1 per cent paid at the 16-17 Year Old Rate. Among 18-20 year olds, 9.8 per cent were paid at the adult rate, compared with 9.5 per cent paid at the YDR. However, as we note in Chapter 5, the proportion of young workers paid at the adult rate has varied over time, and reduced during the recession period, with 2015 marking a possible return to the pre-recession pattern, although it will not be clear for some time whether this is a trend which will continue.

Figure 4.23: Percentage of Jobs Paid At, Between and Above Minimum Wage Rates, by Age, UK, 2015



Source: LPC estimates based on ASHE: 2010 Methodology, April 2015, standard weights, including those not on adult rates of pay, excluding apprentices, UK.

- 4.62** Underpinning these uncertainties is the complex question of the degree to which the employment of younger workers is influenced by their absolute cost or their relative cost to businesses.
- 4.63** Lower average pay and higher unemployment for 21-24 year olds relative to workers aged 25-30 suggests that sharp increases in their pay floor have the potential to price them out of a job. This would be the case if any difference in the pay floor was smaller than perceived differences in productivity and contribution to the business – firms could be incentivised to hire workers aged over 25, or (depending on their minimum wage rate) workers aged 18-20. In research that assessed the relationship between productivity and wages, and age, London Economics (2016) tentatively provides some rationale for a higher wage floor for older workers compared with 21-24 year olds, finding that 21-24 year olds were ‘overpaid’ compared with 25-29 year olds, taking account of their respective productivity. The same research provides weaker justification for increasing the minimum wage gap between 21-24 year olds and younger workers – within the low-paying sectors, younger workers appeared ‘underpaid’ relative to 21-29 year olds (hence the productivity differential between the two groups was smaller than the wage gap). However, across the wider economy the reverse pattern was observed, with 16-20 year olds ‘overpaid’ relative to their productivity when compared with 21-29 year olds.
- 4.64** Irrespective of the level of pay for 21-24 year olds, pay increases for older workers may have the potential to damage younger workers’ employment if they reduce turnover among older workers, leading to fewer replacement opportunities. And employment opportunities could be further eroded if employers decide that lower-skilled workers as a whole are too expensive to employ and invest in machinery or ‘design out’ employment – for example, phasing out served breakfasts in hotels and replacing them with self-service buffets.
- 4.65** On the other hand, a higher wage floor for workers aged over 25 may mean that pay for 21-24 year olds can be higher than it otherwise would be because anyone taking on a staff member now has to pay more for older workers so younger ones are relatively more attractive.
- 4.66** We also need to bear in mind the countervailing risk that, if pay for younger workers falls too far behind older workers, it may encourage substitution of younger staff for older ones – with employment gains for younger staff being delivered at the price of lower pay levels for them than they would otherwise enjoy, and lower employment share for older workers. A big gap may also damage employment of workers around the threshold.
- 4.67** The evidence on substitution effects is sparse, although previous research (Lanot and Sousounis, 2013) has found some evidence of complementarity between 18-21 year olds and workers aged over 55 years. The NLW represents a step change in the relativities between the rates and it will take time to build up a picture of how employers are responding. As such, it is difficult for judgements to be made about these risks, which are in any event likely to vary significantly by sector and type of business, and likely to evolve over time as the NLW progresses on the path to 2020.

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- 4.68** To illuminate the conflicting pressures, Table 4.1 shows the bite of the adult rate to October 2020 under four hypothetical scenarios: following forecast average earnings growth; going half way to the NLW; following the path of the NLW from April 2017; and following the NLW from April 2018. Table 4.2 shows the effect on coverage of the adult rate of the NMW under the same scenarios. We assume here that the NLW increases to 60 per cent of median earnings by 2020 on an even bite path. The trajectory will depend in reality on trends in earnings growth, changes in the wider economy, LPC recommendations and Government decisions.
- 4.69** These indicative analyses suggest that following the path of the NLW from April 2017 would mean sharp increases in coverage and the bite. This could reduce any incentive for employers to substitute 21-24 year olds for workers aged 25 and over – hence reducing any potential employment transfer from older to younger workers – while simultaneously encouraging job loss for 21-24 year olds if their absolute cost was too high. The risk here would be of any job losses arising from the NLW falling disproportionately on 21-24 year olds – this despite the Government’s policy intention of focusing a higher pay floor, both the gains and associated risks, on older workers.
- 4.70** Table 4.1 shows that where the bite of the NLW is intended to be 60 per cent in 2020 for workers aged over 25, following the same path would increase the bite of the adult rate (21-24 year olds) to 90 per cent. If the NMW followed the NLW from April 2018, or followed a path mid-way to the NLW, the bite would still be around 85 per cent by October 2020.

Table 4.1: Bite of the Adult Rate of the National Minimum Wage Under Four Hypothetical Scenarios, UK, 2015-2020

Bite (per cent) in measurement period	(1) Follow Average Earnings	(2) Mid-way to NLW	(3) Paid at NLW from October 2016	(4) Start NLW path from April 2017
2015 Q2	78.7	78.7	78.7	78.7
2016 Q2	78.4	78.4	78.4	78.4
2017 Q2	78.3	79.7	81.2	78.4
2017 Q4	78.3	81.4	84.5	79.6
2018 Q4	78.2	82.3	86.4	81.3
2019 Q4	78.2	83.2	88.2	83.1
2020 Q4	78.1	84.0	90.0	84.7

Source: LPC estimates based on ASHE: 2010 methodology, April 2015, low pay weights including those not on adult rates, excluding Year 1 apprentices, UK; OBR Hourly Earnings Index, November 2015.

Notes:

- Scenario 2 takes the average of the rates produced with scenario 1 (average earnings) and scenario 3 (paid at the NLW from October 2016).
- Scenario 3 assumes that 21-24 year olds receive the uprate to £7.20 in October 2016 and a further uprate aligned with adults aged 25 and over from April 2017.
- Scenario 4 assumes that the NMW for 21-24 year olds reaches £7.20 in April 2017 and then follows the path of the NLW, lagging adults aged 25 and over by one year.
- All Scenarios assume the bite is measured 6 months after introduction, and the NLW follows an even bite path to 2020, with calculations based on data available in January 2016.

4.71 Table 4.2 shows that following the path of the NLW from April 2017 would mean a 50 per cent increase in the proportion of 21-24 year olds paid at the NMW by April 2017, and a three-fold increase in coverage – from 12.5 per cent (around 248,000) currently to 36.1 per cent (around 716,000) – by October 2020. Following the NLW from April 2018, or following a path half-way to the NLW, would still approximately double the number and proportion of 21-24 year olds covered by the NMW by October 2020.

Table 4.2: Coverage of the Adult Rate of the National Minimum Wage Under Four Hypothetical Scenarios, UK, 2015-2020

Coverage (per cent) in measurement period	(1) Follow Average Earnings	(2) Mid-way to NLW	(3) Paid at NLW from October 2016	(4) Start NLW path from April 2017
2015 Q2	12.5	12.5	12.5	12.5
2016 Q2	12.5	12.5	12.5	12.5
2017 Q2	12.5	14.8	18.4	12.5
2017 Q4	12.5	19.2	26.5	14.8
2018 Q4	12.5	21.1	29.4	18.9
2019 Q4	12.5	22.4	33.3	22.3
2020 Q4	12.5	23.7	36.1	26.6

Source: LPC estimates based on ASHE: 2010 methodology, April 2015, low pay weights including those not on adult rates, excluding Year 1 apprentices, UK; OBR Hourly Earnings Index, November 2015.

Notes:

- Scenario 2 takes the average of the rates produced with scenario 1 (average earnings) and scenario 3 (paid at the NLW from October 2016).
- Scenario 3 assumes that 21-24 year olds receive the uprate to £7.20 in October 2016 and a further uprate aligned with adults aged 25 and over from April 2017.
- Scenario 4 assumes that the NMW for 21-24 year olds reaches £7.20 in April 2017 and then follows the path of the NLW, lagging adults aged 25 and over by one year.
- All Scenarios assume the bite is measured 6 months after introduction, and the NLW follows an even bite path to 2020, with calculations based on data available in January 2016.

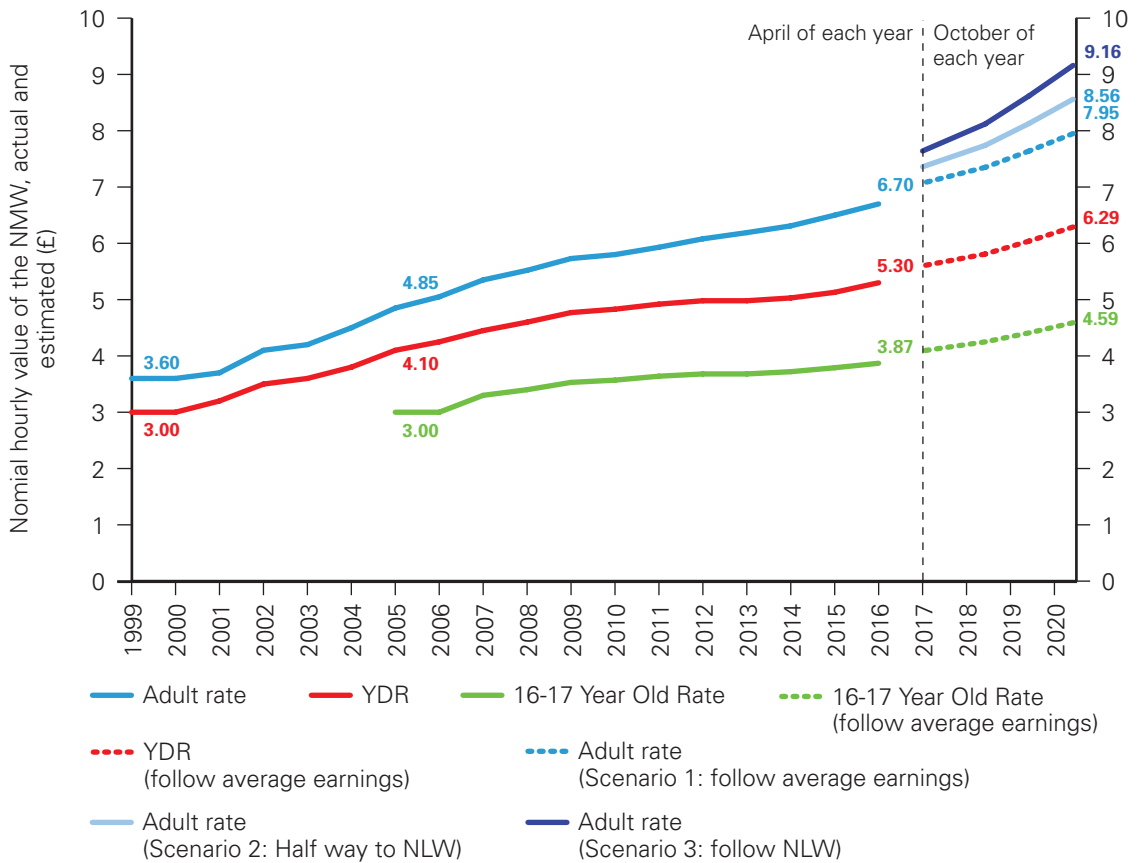
4.72 Conversely, following average earnings would maintain the bite and coverage for 21-24 year olds at the current level. While this might reduce any risks to employment arising from younger workers being ‘priced out’ and indeed – as they become relatively more affordable over time – increase the potential employment gains from substitution of 21-24 year olds for older workers, it would also have possible drawbacks.

4.73 Figure 4.24 shows the emerging gap between the NLW and the adult rate if the latter follow the path of estimated average earnings while the NLW increases in relative value to 60 per cent of median earnings. The gap between the adult rate and the NLW would widen from 50 pence per hour in April 2016 – with the NMW having 90 per cent of the NLW’s value – to £1.21 per hour by October 2020 (about 86 per cent of the NLW’s value). This presents obvious disadvantages of relatively lower pay for younger workers. In addition, the increasingly large jump in the wage floor could potentially disincentivise employment of those near the threshold age as 24 year olds become suddenly much more expensive to an employer on turning 25 years of age.

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4.74 The gap between the adult rate and the YDR also bears consideration. Were the YDR to follow forecast average earnings, and the adult rate to follow the NLW, the difference in the pay floor between a 21-24 year old and an 18-20 year old would increase from £1.20 per hour in April 2016 – 79 per cent of the adult rate’s value – to £2.87 per hour by October 2020 (69 per cent of the adult rate, and NLW, value). This would potentially increase the incentives for employers to substitute younger workers for 21-24 year olds.

Figure 4.24: Nominal Value of the Youth and Adult Rates Under Three Hypothetical Scenarios, UK, 1999-2020



Source: LPC estimates based on ASHE: 2010 methodology, April 2015, UK; OBR Hourly Earnings Index, November 2015.

Notes:

- Scenario 2 takes the average of the rates produced with scenario 1 (average earnings) and scenario 3 (paid at the NLW from October 2016).
- Scenario 3 assumes that 21-24 year olds receive the uprate to £7.20 in October 2016 and a further uprate aligned with adults aged 25 and over from April 2017.
- All Scenarios assume the the NLW follows an even bite path to 2020, with calculations based on data available in January 2016.

Research

- 4.75** As highlighted above, research commissioned for the 2016 Report sheds some light on productivity differentials between younger and older workers which may influence employer's responses to the level of the NMW relative to rates for older and younger workers. London Economics (2016) estimated average productivity by sector to investigate the impact of the National Minimum Wage on the relationship between wages and productivity for different age groups. Its findings suggested that 21-24 year olds were 'overpaid' relative to their productivity when compared with 25-29 year olds (although an increase in the proportion of workers earning the National Minimum Wage narrowed the productivity wage gap). In addition, within the low-paying sectors, although not across the wider economy, 21-29 year olds were 'overpaid' compared with 16-20 years olds – that is, the pay differential between the two groups was greater than the productivity differential.
- 4.76** The findings could suggest that, while a gap between the NMW and the NLW in future may have some basis in terms of productivity differentials, there may be less justification for increasing the gap between the youth rates and the NMW for 21-24 year olds. However, the authors noted that the analysis was tentative because it was based on small numbers and suggested further research was required to confirm the findings. Aligned to this there are widely recognised difficulties in measuring productivity which suggest that the results, although indicative, should be interpreted with caution.
- 4.77** Dickson and Papps (2016) explored the impact of the NMW on employment, including potential substitution effects linked to differing wage floors. Their analysis provided some evidence consistent with risks that the NLW may harm the employment of younger workers seeking to access the labour market. They found that higher increases in the minimum wage were associated with reduced job exits among existing employees and, linked to this, a reduced likelihood of an unemployed person finding work. Furthermore, the reduction in job exits was greatest among 25-29 year olds (whose pay will increase substantially from April 2016 and who may be located in the very jobs that 21-24 year olds are seeking to access/ progress towards).
- 4.78** Dickson and Papps (2016) also found some tentative evidence of potential substitution effects, as increases in the cost of 21-24 year olds were associated with increased employment of 16-17 year olds, although they also noted the absence of any significant effects for 18-20 year olds. The youngest workers were unlikely to be substitutes for 21-24 year olds, although they may be complements to older workers. It remains to be seen whether younger workers will benefit from the increased cost of the NLW for older workers, but the findings suggest that allowing the gap to increase between the youth rates and the NMW for 21-24 year olds could increase the likelihood of substitution across age groups.

Conclusion

- 4.79** As this chapter has shown, 21-24 year olds are in some ways similar to 18-20 year olds and in other ways similar to older workers.
- 4.80** Median earnings for the 21-24 year old group are closer to 18-20 year olds than 25-30 year olds. The bite is the highest of any group. Unemployment for those not in full-time education is roughly twice that of older workers, albeit half that of 18-20 year olds.
- 4.81** On the other hand, 21-24 year olds, like 18-20 year olds, have seen higher earnings growth than older workers including growth at the median of 3.2 per cent in April 2015, twice that of workers aged 25 and over (1.5 per cent). While the employment rate for 21-24 year olds not in FTE is lower than that of older workers, and fell more sharply in recession than older workers (with 21 year olds worst affected), they have seen rapid improvement in recovery, including the fastest increase in the employment rate this year (2.3 percentage points).
- 4.82** The aggregate picture disguises significant internal variation. Earnings, employment rates and unemployment rates of 21 and 22 year olds are closer to those of 20 year olds, while those of 24 year olds are closer to 25 year olds. But the younger part of the 21-24 year old cohort has had faster earnings growth, and the greatest year-on-year improvement in employment rates (3.9 percentage points among 21 year olds). Within the structure of the age band, 21 and 22 year olds are a drag on the level of key indicators, but a boost to their rate of change, while the obverse is true for 24 year olds.
- 4.83** It is uncertain how employment for 21-24 year olds will be affected by the introduction of the NLW. On the one hand, 21-24 year olds are highly dependent on jobs in the low-paying sectors with most potential to be affected by the NLW – half of all 21-24 year olds worked in a low-paying occupation in April 2015. They are potentially at risk of any negative effects – if employers substitute capital for labour, reduce hours, or (perhaps paying one rate regardless of age) prefer older, more experienced workers. Research also suggests that higher minimum wages may slow job exits, potentially reducing ‘replacement’ opportunities. On the other hand, higher pay for workers aged 25 and over may encourage substitution of younger workers, with research finding some evidence for this.
- 4.84** Unlike for the NLW, our recommendations for the adult rate of the NMW, as with the youth rates, are required to have no significant adverse effect on employment. In the absence of much evidence as yet on the effect of the NLW on younger workers, it is clear that maintaining or increasing the value of the adult rate relative to the NLW would lead to higher bites and coverage for 21-24 year olds (albeit a high bite that increased sharply in 2010 does not appear to have damaged employment of 21 year olds). Equally, reducing the relative value of the pay floor for 21-24 year olds could open up a gap in earnings, with risks to the employment of workers about to turn 25. In our recommendation for the adult rate of the NMW in Chapter 7 we consider further how to balance these considerations.

Chapter 5

Young People and Apprentices

Introduction

5.1 This chapter considers the labour market position of young people aged 16-20 and apprentices. As in previous reports, it considers their employment, earnings, and prospects. The situation of workers aged 21-24 was considered in Chapter 4. Our recommendations for the rates, including those for young people and apprentices, are covered in Chapter 7, where we also set out stakeholder views in detail. We begin with an overview of the earnings and labour market position of young people overall before turning to look at apprenticeships, including apprenticeship starts, pay, non-compliance and the impact of the Apprentice Rate.

Young People

5.2 For many years, the overall trend for young people in the labour market has been one of long-term deterioration, which worsened with the onset of recession in 2008. However, in our 2015 Report, we noted signs of improving employment and unemployment rates for 18-20 year olds and 16-17 year olds. Earnings grew for young workers between 2013 and 2014 in spite of the very limited earnings growth across the economy generally. Earnings growth was particularly marked among 18-20 year olds and, linked to this, the value of the Youth Development Rate (YDR) relative to average earnings – the bite – fell. Earnings growth was lower among 16-17 year olds – albeit it was still higher than the earnings growth for adult workers – and the bite of the 16-17 Year Old Rate continued to climb. The proportion of 18-20 year olds being paid at the Youth Development Rate (YDR) fell but an increasing proportion of 16-17 year olds were paid at the 16-17 Year Old Rate. The latest data show that the improvements in employment and earnings growth have continued.

Youth Rates

5.3 There are two rates of the minimum wage applicable to young people: the Youth Development Rate (YDR), applicable to 18-20 year olds, and the 16-17 Year Old Rate. As with the adult rate, we have previously made recommendations for these rates on the basis of achieving no significant adverse effect on employment. And the general principle has been that the level should be lower for younger people than for older workers as: they are more vulnerable to unemployment; the consequences of periods out of the labour market are more serious; and we have sought to avoid incentivising young people to leave education.

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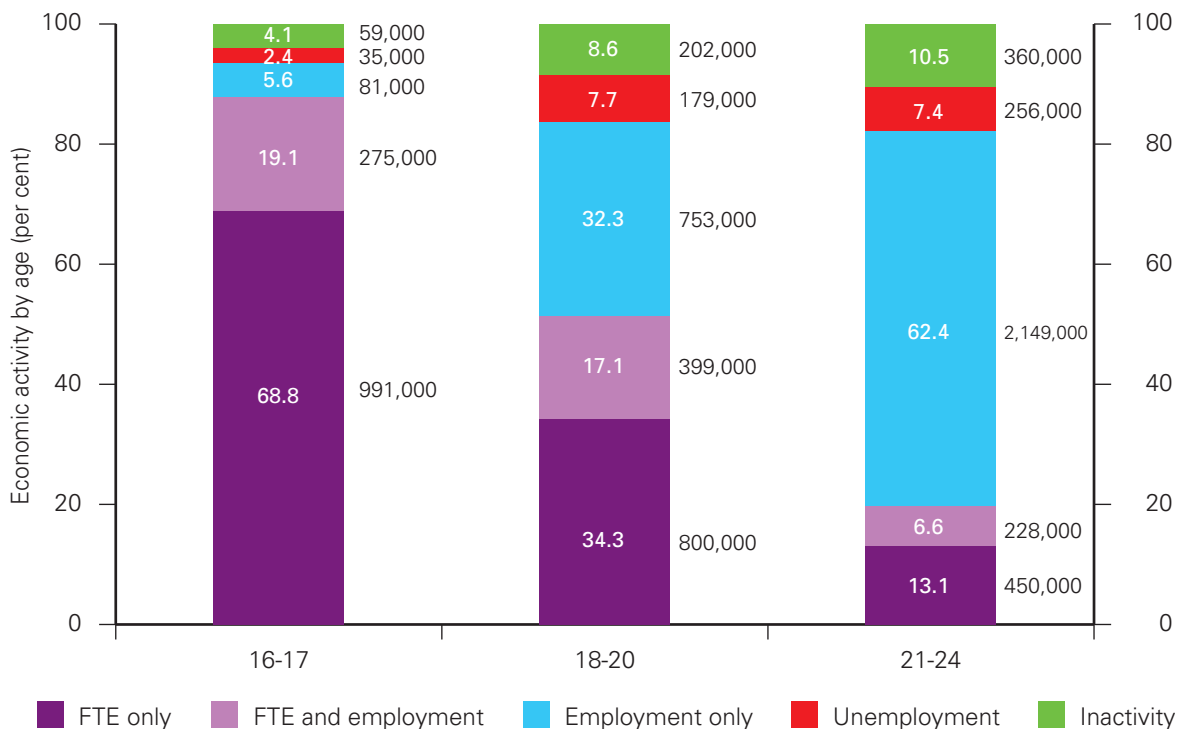
- 5.4** The remit this year is unchanged from those in the past in relation to the youth rates. But the introduction of the National Living Wage (NLW) for workers aged 25 and over – which in turn effectively repositions the adult rate as a 21-24 year old rate – raises some issues. In particular, it may be the case that the pay floors for younger workers can be higher than they otherwise would be because older workers are set to become relatively more expensive to employ, though this needs to be balanced against concerns about the absolute cost of both groups.
- 5.5** Our recommendations for the youth rates of the NMW have always been determined partly on an absolute basis and partly on a relative basis. A stronger or weaker labour market position for younger workers relative to older workers would drive bigger or smaller increases in our recommendations for the level of their pay floor. The introduction of the NLW from April 2016, and the effective restriction of the adult rate to 21-24 year olds, potentially increases the likelihood that employers may start to substitute between older and younger workers. Just as 21-24 year olds may be substitutes for workers in their mid to late twenties, younger workers, particularly 18-20 year olds, may be substitutes for 21-24 year olds. In future, rather than just comparing younger workers with each other, and with those aged 21 and over, we will also compare their earnings and labour market position with those of 21-24 year olds.
- 5.6** A further consideration is the cyclical position. The LPC recommended smaller increases for younger people than for adults in each year between 2011 and 2014, including, reluctantly, a freeze in the youth rates in 2012. But we also said that, because youth employment is particularly sensitive to the economic cycle, we expected to be able to recommend larger increases for them when economic conditions eased and their relative position improved. We began this journey last year by recommending a bigger increase in the YDR than in the adult rate. The YDR rose by 3.3 per cent in October 2015, from £5.13 to £5.30, compared with an increase of 3.1 per cent in the adult rate of the NMW, from £6.50 to £6.70. We recommended an increase of 2.1 per cent for the 16-17 Year Old Rate, from £3.79 to £3.87, because 16-17 year olds had seen lower earnings growth than 18-20 year olds and their labour market position continued to be more fragile.
- 5.7** The next section provides an overview of the youth population, comparing them with slightly older workers, before reviewing earnings growth, use of the minimum wage rates and finally the labour market.

Overview of the 16-17 and 18-20 Year Old Populations

- 5.8** The labour market for young workers has a very different structure to that of older workers – in part reflecting the long-term move of young people into education, a trend in turn accelerated by recession. In the third quarter of 2015, the majority (87.9 per cent) of 16-17 year olds, and around half (51.4 per cent) of 18-20 year olds were in full-time education (FTE), compared with around one in five (19.7 per cent) 21-24 year olds.

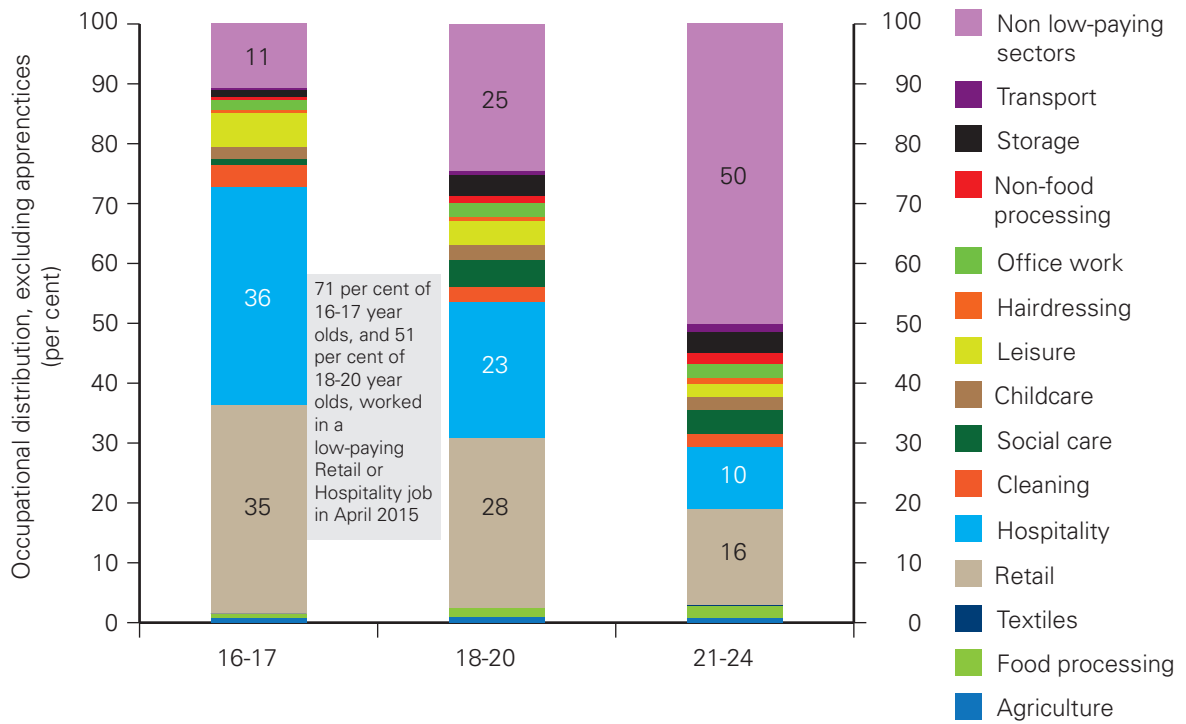
- 5.9** Figure 5.1 compares the positions of the three cohorts aged under 25. It shows that around 991,000 of the 1.4 million 16-17 year olds (68.8 per cent) were solely in FTE. In addition, 275,000 were in FTE and part-time work (19.1 per cent). The remainder, around one in ten of the cohort, were not studying full-time: 81,000 were in work (5.6 per cent); 59,000 were economically inactive (4.1 per cent); and 35,000 were unemployed (2.4 per cent).
- 5.10** Of the 2.3 million 18-20 year olds, 800,000 (34.3 per cent) were solely in FTE. A further 399,000 (17.1 per cent) were in FTE and part-time work. The remainder, just under half of the cohort, were not studying full-time: 753,000 were in work (32.3 per cent); 202,000 were economically inactive (8.6 per cent); and 179,000 were unemployed (7.7 per cent).
- 5.11** In terms of total labour market involvement, just over a quarter (27.1 per cent) of 16-17 year olds, rising to over half (57.1 per cent) of 18-20 year olds, were active in the third quarter of 2015, either through employment (including those engaged in part-time work while studying) or unemployment (actively looking for a job). This compared with around three quarters (76.5 per cent) of 21-24 year olds.

Figure 5.1: Economic Activity, by Age, UK, 2015



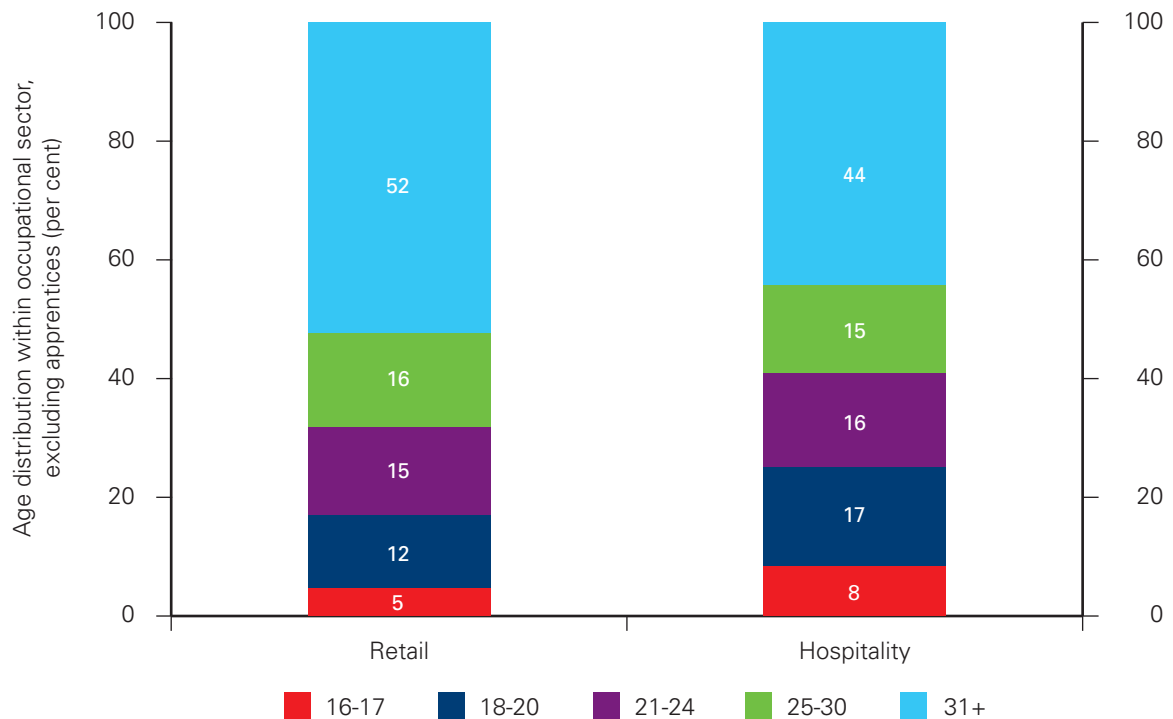
- 5.12** Figure 5.2 shows the occupational distribution for young people. It demonstrates that when young people are in work they tend to be employed in low-paying occupations, particularly in retail or hospitality. As such, they are more exposed than older workers to minimum wage decisions. In April 2015, seven in ten workers aged 16-17 years worked in a low-paying hospitality (36 per cent) or retail (35 per cent) occupation. Among 18-20 year olds, half worked in a low-paying retail (28 per cent) or hospitality (23 per cent) occupation. Just one in nine (11 per cent) 16-17 year olds, and a quarter (25 per cent) of 18-20 year olds, worked in a non-low-paying occupation; this compared with half of 21-24 year olds (and three quarters of workers aged 31 and over).

Figure 5.2: Percentage of Workers in Retail, Hospitality, Other Low-paying and Non-low-paying Occupations, by Age, UK, 2015



Source: LPC estimates based on ASHE: 2010 methodology, April 2015, standard weights including those not on adult rates of pay, excluding apprentices, UK.

- 5.13** It follows that young workers, particularly 18-20 year olds, are an important source of labour for retail and hospitality employers. Figure 5.3 shows that, together, 16-20 year olds accounted for 25 per cent of low-paying hospitality jobs, and 17 per cent of low-paying retail jobs (compared with 4 per cent of total jobs). It can also be seen that these sectors employed a similar number of workers aged 21-24 and 25-30, illustrating the potential for employers to substitute between different groups of workers.
- 5.14** The high proportion of young workers in low-paying occupations has implications for their earnings and for employers' use of the minimum wage rates to pay young workers. These issues, and the trends over time, are considered in the next section.

Figure 5.3: Low-paying Jobs in Retail and Hospitality, by Age, UK, 2015

Source: LPC estimates based on ASHE: 2010 methodology, April 2015, standard weights including those not on adult rates of pay, excluding apprentices, UK.

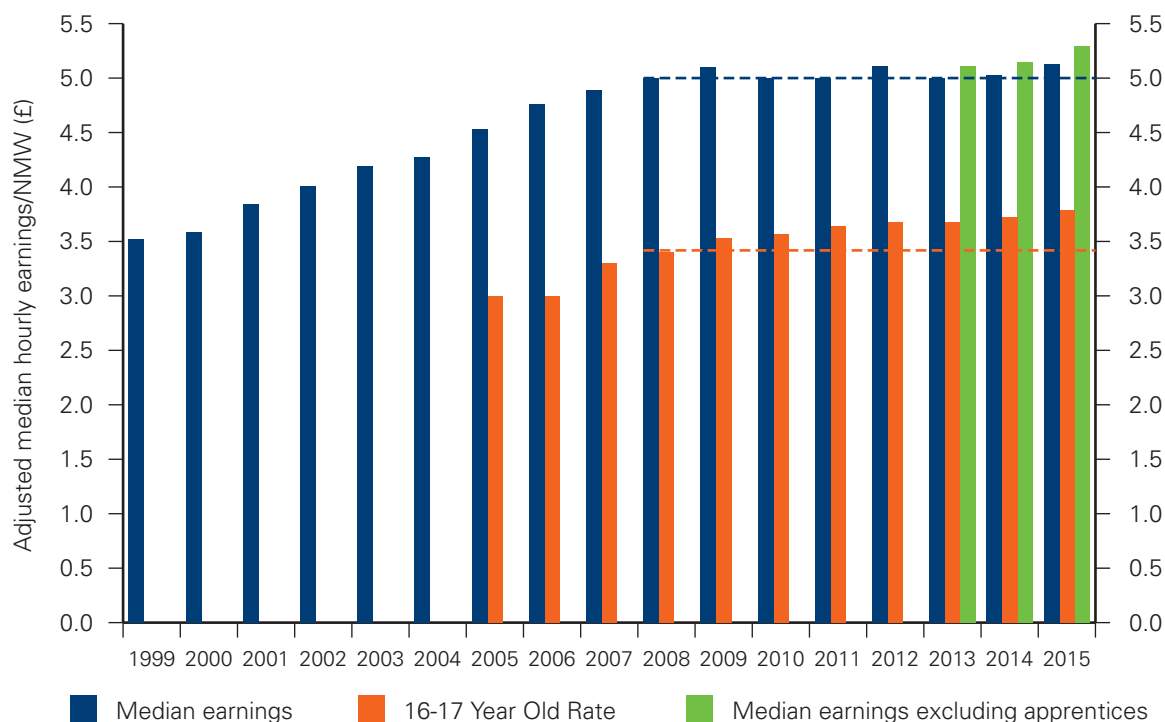
Earnings

- 5.15** We use data from the Annual Survey of Hours and Earnings (ASHE) to look at the level and growth of earnings for employees. The latest data relate to April 2015, and cover the minimum wage rates introduced in October 2014.
- 5.16** Overall, young workers' pay is relatively low. In April 2015 hourly earnings were £6.83 at the median for 18-20 year old workers, excluding apprentices (and £6.73 at the median when apprentices were included). Median earnings for 16-17 year olds, excluding apprentices, were £5.29 (£5.13 including apprentices). These compared with £8.26 for 21-24 year olds, £11.95 for workers aged 21 and over, and £12.39 for workers aged 25 and over.
- 5.17** The change in pay gives a different picture. Earnings growth suggests that the recovery for 18-20 year olds that underpinned the NMW increase we recommended in 2015 is continuing. In addition, there were tentative signs of improved earnings growth for 16-17 year olds, once apprentices were excluded. In the year to April 2015 earnings growth at the median for non-apprentice workers was 2.9 per cent for 18-20 year olds and 2.7 per cent for 16-17 year olds. These rates were slightly below the earnings growth at the median for 21-24 year olds (3.1 per cent) but were almost twice the earnings growth of workers aged 25 and over (1.5 per cent at the median).

National Minimum Wage

5.18 Figure 5.4 shows nominal earnings for 16-17 year olds and the 16-17 Year Old Rate from 2005. Including apprentices, median earnings for 16-17 year olds have remained at or close to £5.00 an hour since April 2008. However, once apprentices are excluded, median earnings show year-on-year growth from April 2013, with increasing strength in the last year, which exceeded the increase in the 16-17 Year Old Rate (1.9 per cent).

Figure 5.4: Median Hourly Earnings and the Minimum Wage for 16-17 Year Olds, UK, 1999-2015

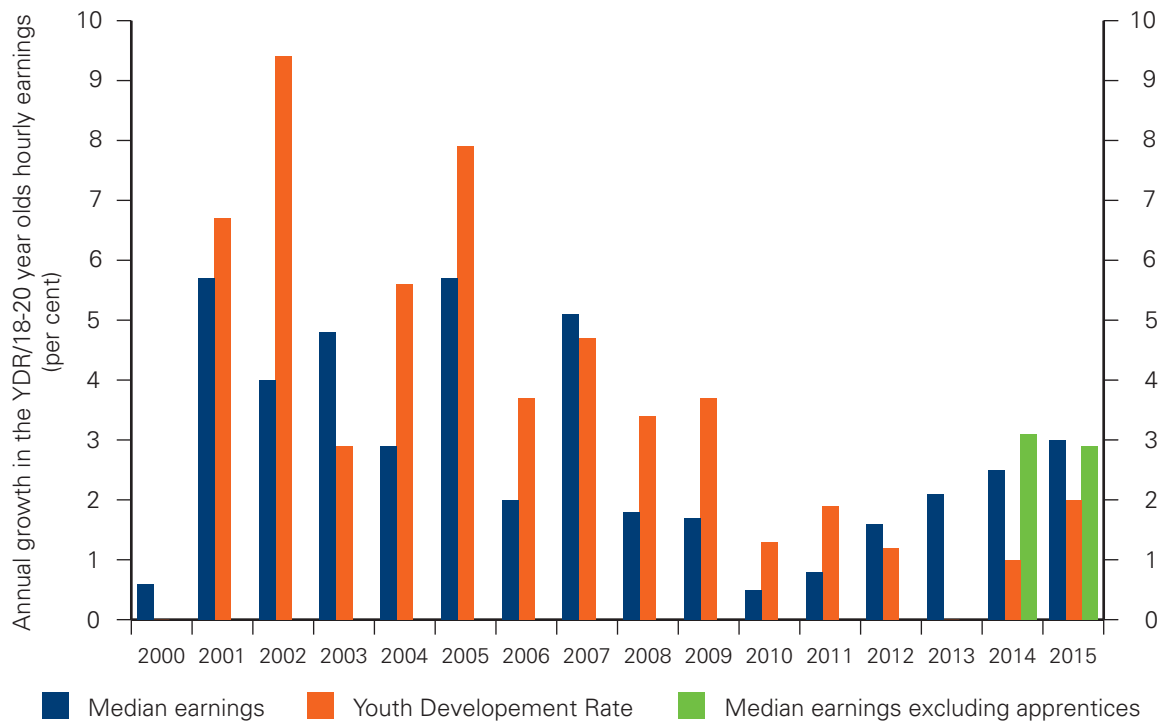


Source: LPC estimates based on ASHE: Adjusted earnings time series without supplementary information, April 1999-2003; with supplementary information, April 2004-2005; 2007 methodology, April 2006-2010; and 2010 methodology, April 2011-2015, standard weights, including those not on adult rates of pay, UK.

Note: Earnings data include apprentices unless specified.

5.19 Figure 5.5 shows annual earnings growth, in percentage terms, for 18-20 year olds alongside growth in the YDR from 1999. It illustrates a pattern of increases quite different to the stagnating earnings growth observed for 16-17 year olds. Indeed, 18-20 year olds have experienced year-on-year increases in earnings growth since April 2010, exceeding the growth in the YDR from April 2012 onwards. Including apprentices, earnings for 18-20 year olds increased by 3.0 per cent in April 2015. This was the largest nominal and percentage increase since 2007 and exceeded the increase in the YDR of 2.0 per cent.

Figure 5.5: Annual Growth in Median Hourly Earnings and the Minimum Wage for 18-20 Year Olds, UK, 1999-2015



Source: LPC estimates based on ASHE: Adjusted earnings time series without supplementary information, April 1999-2003; with supplementary information, April 2004-2005; 2007 methodology, April 2006-2010; and 2010 methodology, April 2011-2015, standard weights, including those not on adult rates of pay.

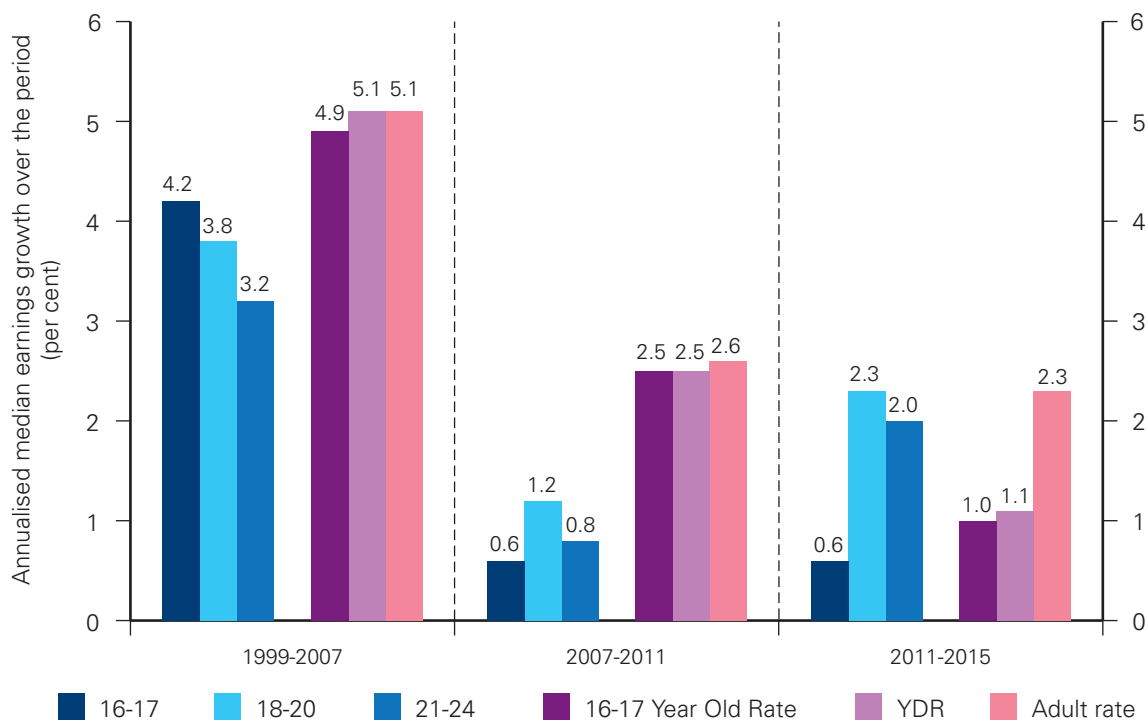
Note: Data include apprentices unless specified.

5.20 Figure 5.6 compares earnings growth for the two youth cohorts with that of workers aged 21-24 years old in three phases – pre-recession, during recession and during recovery. In the pre-recession phase, between 1999 and 2007, earnings growth for 16-17 year olds (4.2 per cent) and 18-20 year olds (3.8 per cent) exceeded that of 21-24 year olds (3.2 per cent); but earnings growth for all three cohorts was lower than the increases in their respective minimum wage rates (4.9-5.1 per cent). In the recession phase, between 2007 and 2011, earnings growth was weak for all three cohorts but 18-20 year olds (1.2 per cent) fared slightly better, while 16-17 year olds (0.6 per cent) saw the lowest earnings growth at the median, with 21-24 year olds faring only slightly better (0.8 per cent). During this period the minimum wage increased much more quickly than earnings: the YDR (2.5 per cent) and adult rate (2.6 per cent) of the minimum wage increased around twice as fast as earnings for 18-20 and 21-24 year olds; the 16-17 Year Old Rate (2.5 per cent) increased four times faster than earnings growth for 16-17 year olds. This was followed, from 2011 to 2015, by a phase of lower increases in the minimum wage, including the freeze in the youth rates in 2012, during which earnings recovered for 18-20 year olds (2.3 per cent) and 21-24 year olds (2.0 per cent) but not for 16-17 year olds (0.6 per cent).

National Minimum Wage

5.21 In the period since 2011, average earnings growth for 18-20 year olds increased twice as fast as the YDR – 2.3 per cent and 1.1 per cent respectively (albeit this mainly reflects strong performance since 2013). The consistent earnings growth for 18-20 year olds, contrasting with the poor earnings growth for 16-17 year olds, contributed to the decision last year to increase the YDR by 3.3 per cent, while increasing the 16-17 Year Old Rate by only 2.1 per cent. Although we have seen improved earnings growth in April 2015 for 16-17 year olds, it is too soon to confirm whether we are observing the start of a trend similar to that observed for 18-20 year olds.

Figure 5.6: Growth in the Minimum Wage and Median Earnings, by Age, UK, 1999-2015



Source: LPC estimates based on ASHE: Adjusted earnings without supplementary information, April 1999-2003; with supplementary information, April 2004-2005; 2007 methodology, April 2006-2010; and 2010 methodology, April 2011-2015, standard weights, including those not on adult rates of pay and apprentices, UK.

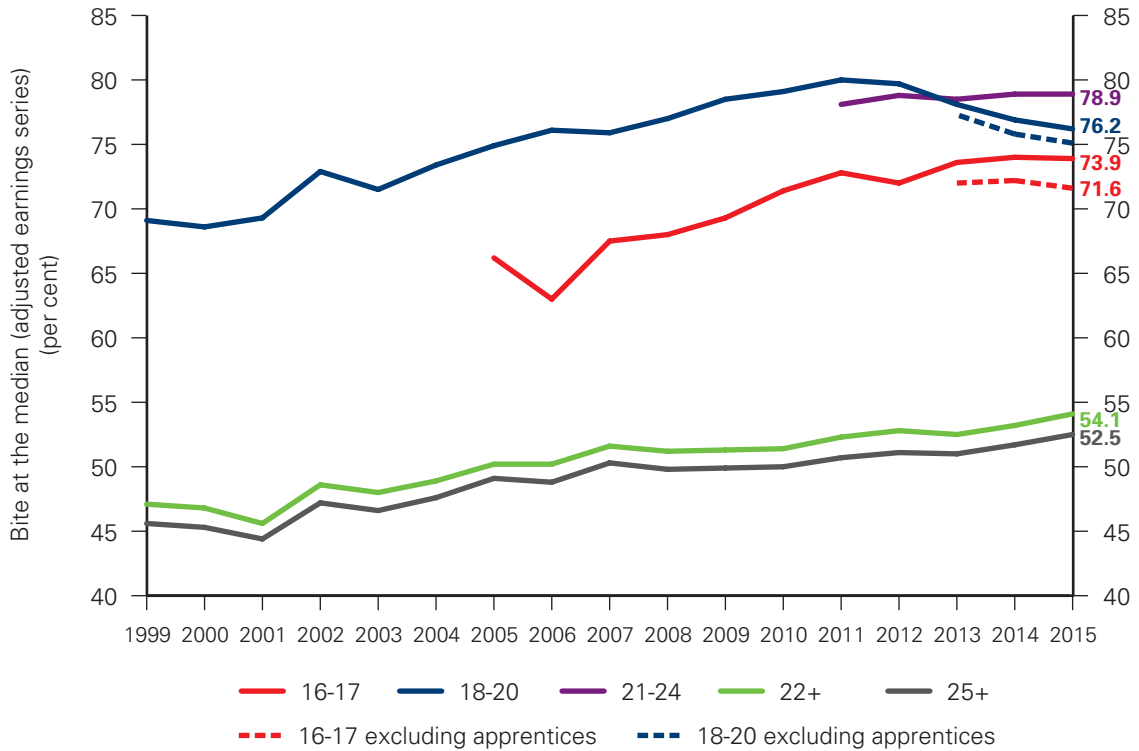
Notes:

- From the introduction of the NMW until October 2010, 21 year olds were entitled to the YDR. In October 2010 they joined workers aged 22 and over in being entitled to the adult rate of the NMW.
- The 16-17 Year Old Rate was introduced in October 2004.

Bite of the Youth Rates

- 5.22** Since 1999, when the National Minimum Wage was introduced, we have monitored the bite of the minimum wage at the median of the earnings distribution, reflecting concerns that too high a level could lead to negative employment effects. The rationale is that a high bite is a possible leading indicator of NMW 'stress' because it could indicate that many employers are already struggling to pay very much above the minimum wage – hence further increases in the NMW could force some employers to cut jobs. Alongside this we monitor the use of the rates – a high or increasing proportion of workers being paid at the minimum wage could increase the risk of negative employment effects in response to increases in the minimum wage. Additionally, a high or increasing proportion of workers paid below the minimum wage could indicate that the NMW is already exerting excessive stress on employers. The next section considers trends in the bite of the NMW and the proportion of workers paid at or below their respective rates.
- 5.23** Since the NMW was introduced, its value relative to median earnings has been consistently highest for young people, and – taking the period as a whole – has increased for all ages. Figure 5.7 shows that the bite for 16-17, 18-20 and 21-24 year olds has always been well above 60 per cent, the target for the NLW for workers aged 25 and over in 2020. The bite of the YDR peaked at 80 per cent for 18-20 year olds in 2011, and fell thereafter, due to improved earnings growth alongside smaller increases in the minimum wage.
- 5.24** The secular growth of the NMW over time is a consequence of our successive recommendations seeking to raise the value as high as possible without damaging employment. As Figure 5.7 shows, for 18-20 year olds the bite rose between 2000-2002, 2003-2006, and 2007-2011 as NMW increases outpaced earnings. For 16-17 year olds, the bite rose between 2006-2011 and from 2012-2014.
- 5.25** But the recent pattern has been different, particularly for 18-20 year olds. Including apprentices, the bite of the YDR has fallen since 2011. This included a fall of 0.6 percentage points to 75.1 per cent in the year to April 2015 once apprentices were excluded – 4.9 percentage points below the peak of 80.0 per cent (including apprentices) in 2011.
- 5.26** The bite of the 16-17 Year Old Rate has increased since 2006 but was stable between 2014 (74.0 per cent) and 2015 (73.9 per cent). If apprentices are excluded, the bite for 16-17 year old workers fell 0.6 percentage points, from 72.2 per cent, to 71.6 per cent in April 2015. The bite of the 16-17 Year Old Rate remains lower than the bite of the YDR – and both remain lower than the bite of the adult rate of the NMW for 21-24 year olds (78.9 per cent), albeit as we showed in the previous chapter if we exclude 21 year olds the bite is broadly similar for 18-20 year olds and 22-24 year olds.

Figure 5.7: Bite of the Minimum Wage at the Median, by Age, UK, 1999-2015



Source: LPC estimates based on ASHE: adjusted earnings series, without supplementary information, April 1999-2004; with supplementary information, April 2004-2006; 2007 methodology, April 2006-2011; and 2010 methodology, April 2011-2015, standard weights, including those not on adult rates of pay, UK.

Notes:

- a. At the introduction of the NMW the adult rate applied only to workers aged 22 and over. From October 2010 eligibility for the adult NMW was extended to 21 year olds.
- b. Data include apprentices unless specified.

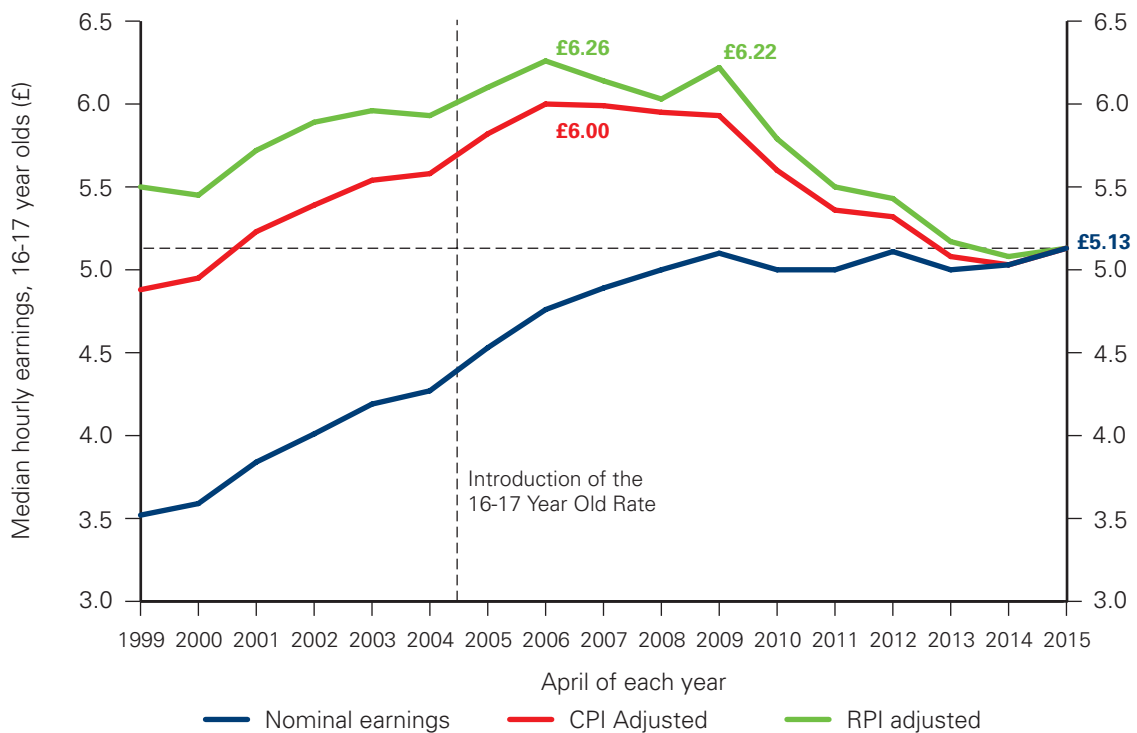
5.27 As noted above, during the aftermath of the recession, the LPC pursued a deliberate strategy of caution in relation to recommendations for the youth rates, which were lower than for the adult rate. This is partly but not wholly reflected in the out-turn for the bite (the bite for 16-17 year olds continued to rise because wage growth stagnated more than we anticipated). Recent research, such as London Economics (2015) and Dickson and Papps (2016) has provided tentative initial evidence that this cautious approach succeeded in its aim of benefitting younger workers' employment prospects. London Economics (2015) found that 16-20 year olds were 2.5 percentage points more likely to be employed compared with individuals aged 21-22 during the period of lower increases in the youth rates between October 2011 and September 2013 (including the freezing of the youth rates in October 2012). Building on this, Dickson and Papps (2016) found that higher increases in the youth rates were associated with reduced employment for 16-17 year olds, although not for 18-20 year olds, in their analysis.

Real Wages

5.28 Despite relatively high earnings growth in nominal terms for 18-20 year olds, real earnings growth has been much weaker, with a worse picture still for 16-17 year olds. However, there are signs that, thanks in part to low inflation, real earnings are tentatively starting to recover.

5.29 The year to April 2015 marked the first year in almost a decade (since 2006), in which real hourly earnings rose for 16-17 year olds. Figure 5.8 shows that real hourly wages for 16-17 year olds rose by 10 pence (2.1 per cent) using the CPI measure of inflation, from £5.03 in April 2014 to £5.13, and by 5 pence (1.1 per cent), from £5.08 in April 2014 using the RPI measure of inflation. There is however a very long way to go before their earnings can be said to have recovered from the recession. On both measures of inflation, real median hourly earnings for 16-17 year olds fell dramatically from 2009. They remain considerably below their pre-recession peaks in 2006 – lower by £1.13 pence an hour (18 per cent) compared with the RPI high of £6.26, and by 87 pence an hour (14 per cent) compared with the CPI high of £6.00.

Figure 5.8: Nominal and Real Level of Median Earnings for 16-17 Year Olds, by Price Index, UK, 1999-2015



Source: LPC estimates based on ONS data, CPI (D7BT) and RPI (CHAW), April 1999-2015, monthly, and ASHE: without supplementary information, April 1999-2003; with supplementary information, April 2004-2005; 2007 methodology, April 2006-2010; and 2010 methodology, April 2011-2015, standard weights, including those not on adult rates of pay, UK.

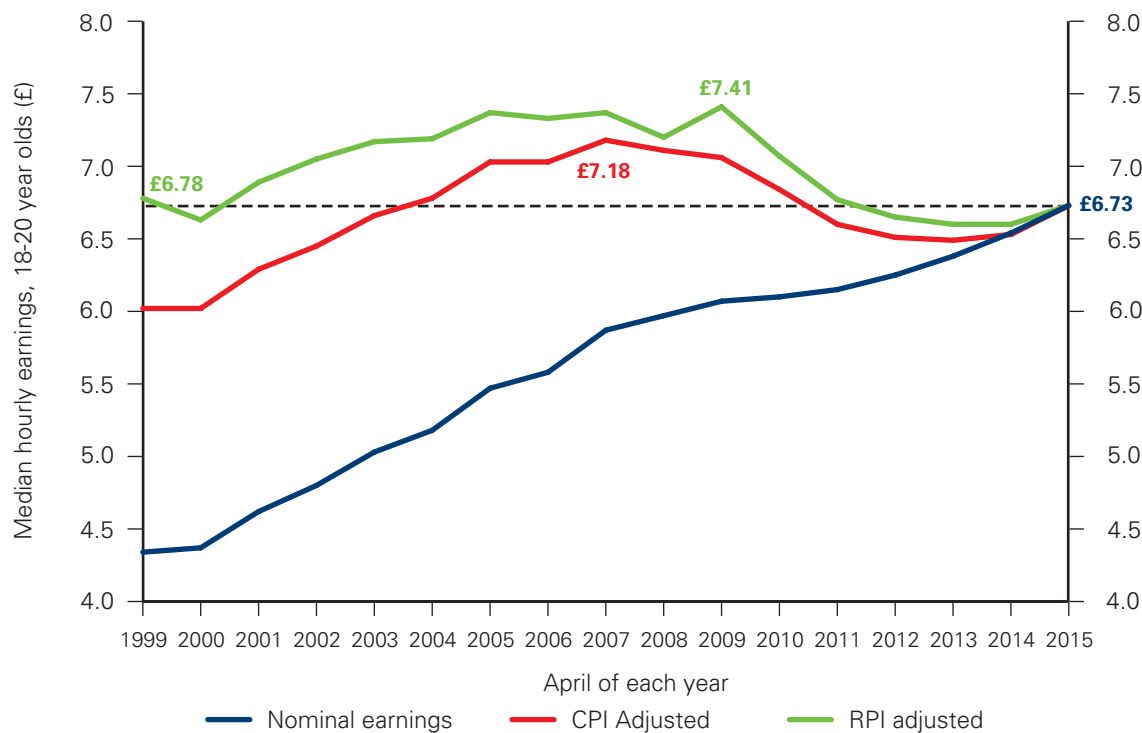
Notes:

- a. Earnings data are adjusted for a consistent time series.
- b. Data include apprentices.

5.30 In our 2015 Report we noted the first signs of real earnings growth for 18-20 year olds, adjusting for CPI inflation, and the first year since 2009 that real earnings had not fallen using RPI inflation. Figure 5.9 shows that these initial improvements have continued: in the year to April 2015 real earnings for 18-20 year olds rose using both measures of inflation. Adjusting for CPI inflation, median hourly earnings rose by 20 pence (3.0 per cent) – from £6.53 to £6.73 – in the year to April 2015, building on the real term increase of 4 pence (0.7 per cent) in the previous year to April 2014. Adjusting for RPI inflation their earnings rose by 13 pence (2.0 per cent), from £6.60, marking the first real terms increase since 2008 on this measure. However, again their real hourly wages remain considerably below their pre-recession peaks

in real terms – albeit to a much smaller degree than for 16-17 year olds. They are lower by 68 pence an hour (9 per cent) compared with the RPI high of £7.41 in 2009, and by 45 pence an hour (6 per cent) compared with the CPI high of £7.18 in 2007.

Figure 5.9: Nominal and Real Level of Median Earnings for 18-20 Year Olds, by Price Index, UK, 1999-2015



Source: LPC estimates based on ONS data, CPI (D7BT) and RPI (CHAW), April 1999-2015, monthly, and ASHE: without supplementary information, April 1999-2003; with supplementary information, April 2004-2005; 2007 methodology, April 2006-2010; and 2010 methodology, April 2011-2015, standard weights, including those not on adult rates of pay, UK.

Notes:

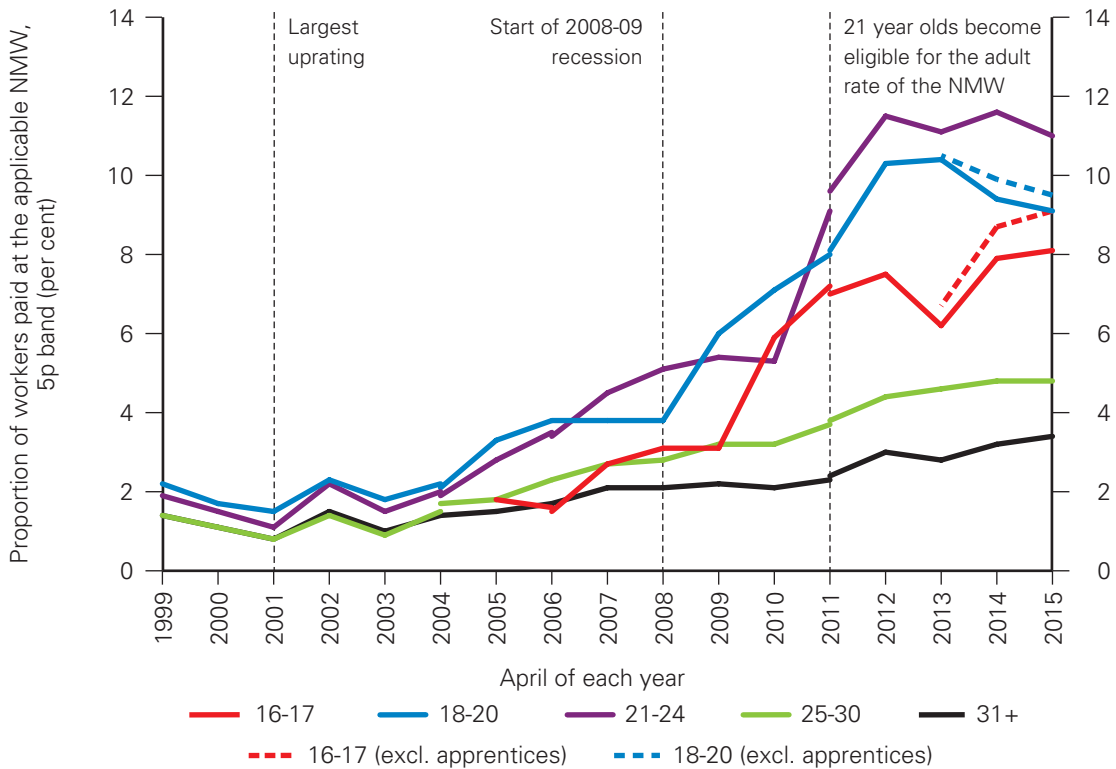
- a. Earnings data are adjusted for a consistent time series.
- b. Data include apprentices.

Coverage of the Youth Rates

5.31 A second possible measure of NMW ‘stress’ – and hence important for determining the size of increases in the minimum wage – is employers’ use of the rates. Figure 5.10 shows that the proportion of workers paid at the minimum wage is, in line with their lower earnings, much higher for younger than older workers. It has steadily increased since the mid-2000s, for all age groups, rising sharply for younger workers in the recession. However, since 2013, use of the YDR has fallen while use of the 16-17 Year Old Rate has increased. The proportions of 16-17 and 18-20 year old workers, excluding apprentices, paid at their age rates were similar in April 2015 (9.1 and 9.5 per cent respectively). These proportions were twice those of workers aged 25 and over (3.6 per cent) but slightly lower than the proportion of 21-24 year olds paid at the adult rate of the NMW (11.1 per cent excluding apprentices).¹¹

¹¹ Proportions covered by applicable age rates are the same if we include apprentices eligible for the age rates (age 19 and over in Year Two or longer of an apprenticeship).

Figure 5.10: Percentage Paid at Their Age-related Minimum Wage Rate, by Age, UK, 1999-2015



Source: LPC estimates based on ASHE: without supplementary information, April 1998-2004; with supplementary information, April 2004-2006; 2007 methodology, April 2006-2011; and 2010 methodology, April 2011-2015, low pay weights including those not on adult rates of pay, UK.

Notes:

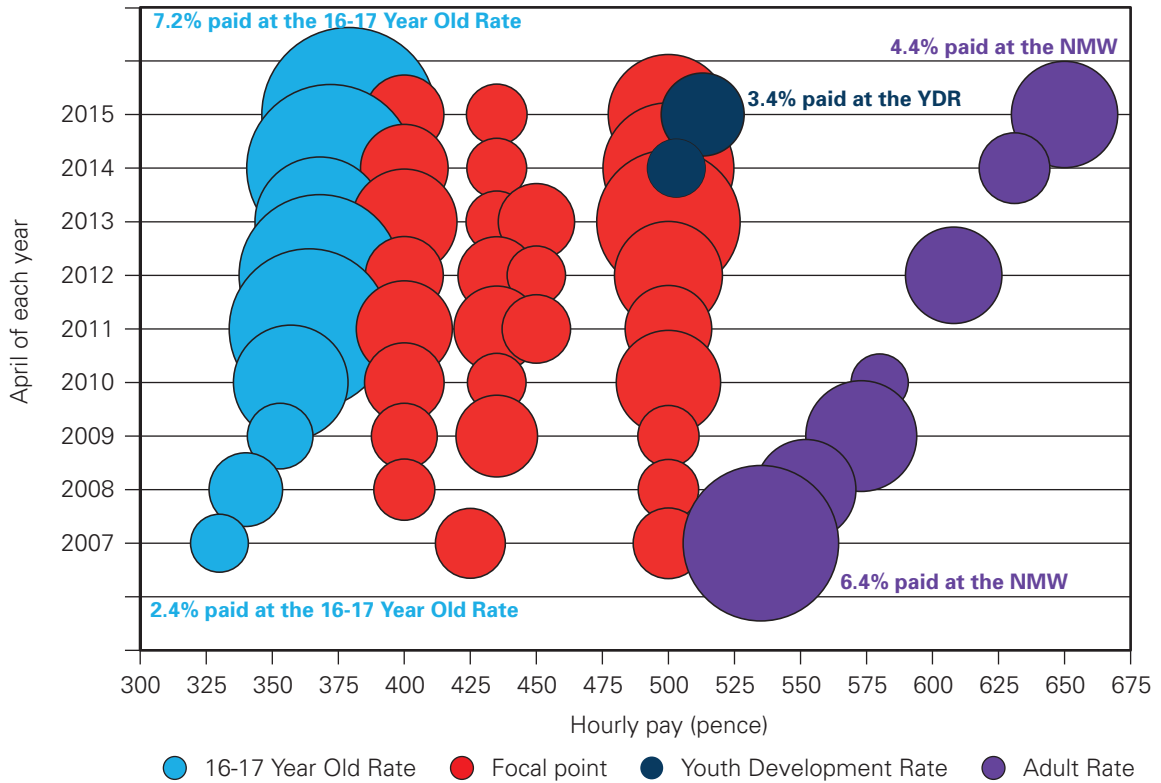
- a. Based on a 5 pence band.
- b. Direct comparisons before and after 2004, 2006 and 2011 should be made with care due to changes in the data series.
- c. Data include apprentices unless specified.

5.32 In Chapter 4 we noted that more young workers were paid at a minimum wage above their own rate than at their age-specific rate in April 2015. Just over one in ten (10.8 per cent) 16-17 year olds were paid at the adult rate (5.9 per cent) or YDR (4.9 per cent) compared with 9.1 per cent paid at the 16-17 Year Old Rate.¹² Among 18-20 year olds, the proportion paid at the adult rate of the NMW (9.8 per cent) was slightly higher than the proportion paid at the YDR (9.5 per cent) in April 2015.

5.33 However, Figure 5.11 and Figure 5.12 show that employers have not always paid young workers at minimum wage rates above their own. In April 2014, for example, just 5.3 per cent of 16-17 Year Olds were paid exactly at the YDR or adult rate (2.4 percent and 2.9 per cent respectively), while 7.2 per cent were paid exactly at the 16-17 Year Old Rate. Figure 5.11 does however demonstrate that employers often pay 16-17 year olds at a focal point above their minimum wage – for example, 5.0 per cent were paid at £5.00 in April 2015.

¹² Based on a five pence band.

Figure 5.11: Percentage of 16-17 Year Olds Paid at Various Focal Points, UK, 2007-2015

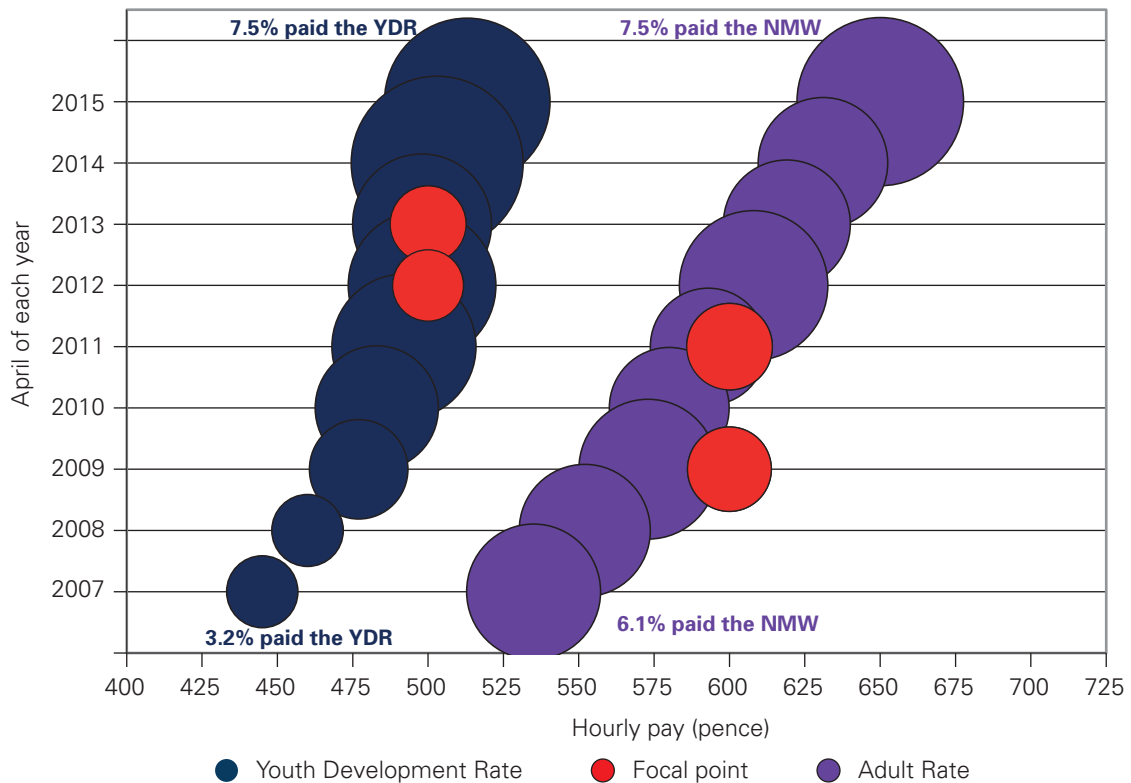


Source: LPC estimates based on ASHE: 2007 methodology, April 2007-2011; and 2010 methodology, April 2011-2015, low pay weights including those not on adult rates of pay and apprentices, UK.

Note: Direct comparisons before and after 2011 should be made with care due to changes in the data series.

5.34 Figure 5.12 shows that in April 2015 the same proportion of 18-20 year olds were paid exactly at the adult rate of the NMW or at the YDR (each 7.5 per cent). This marked the first year since April 2012 that the proportion of 18-20 year olds paid at the adult rate of the NMW was similar – or greater than – the proportion paid at the YDR. It is not clear therefore whether April 2015 represents the start of a new trend. However, it is notable that prior to the recession employers were more likely to pay 18-20 year olds at the adult rate than the YDR – for example, in April 2007 twice as many 18-20 year olds were paid at the adult rate (6.1 per cent) as at the YDR (3.2 per cent) – so it is possible that we may return to this pattern as we move further into recovery.

Figure 5.12: Percentage of 18-20 Year Olds Paid at Various Focal Points, UK, 2007-2015



Source: LPC estimates based on ASHE: 2007 methodology, April 2007-2011; and 2010 methodology, April 2011-2015, low pay weights including those not on adult rates of pay and apprentices, UK.

Note: Direct comparisons before and after 2011 should be made with care due to changes in the data series.

Non-compliance and Proportions Paid Below the Rates

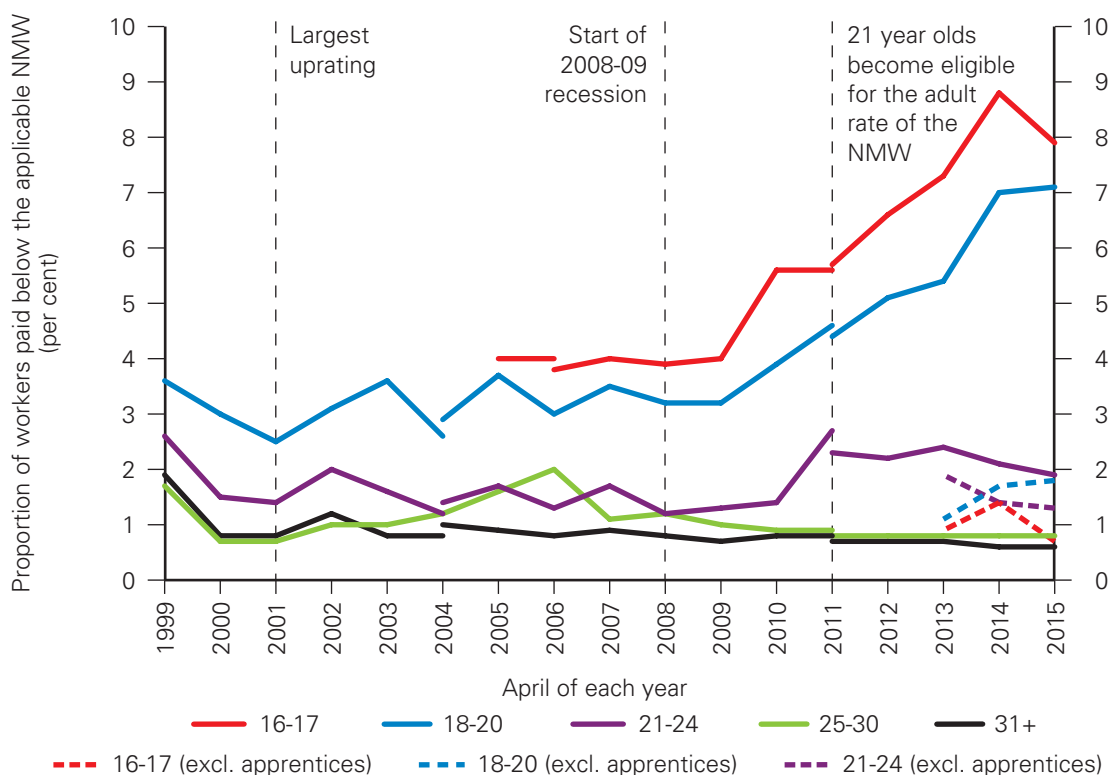
5.35 A third possible indicator of NMW ‘stress’ is the proportion of workers paid below their applicable minimum wage. Since the introduction of the youth rates, the proportion of workers paid below their respective rates has been higher for younger workers than for older workers. However, once apprentices are excluded – for whom the lower wage floor of the Apprentice Rate may be applicable – the proportion of young workers paid below their respective rates falls dramatically.

5.36 Figure 5.13 shows that in April 2015, 1.8 per cent of 18-20 year olds and less than one per cent of 16-17 year olds were paid below the minimum wage. The proportion of 16-17 year olds paid less than the 16-17 Year Old Rate was similar to the proportions of 25-30 year olds (0.8 per cent) and workers aged 31 and over (0.6 per cent) paid below the adult rate of the NMW – and lower than the proportion of 21-24 year olds (1.3 per cent) paid below the NMW. However, there are grounds to treat the estimates for young workers with some caution. Analysis of apprentices in ASHE, discussed later, suggests that ASHE may not be picking up the lowest-paid young workers. While the ASHE data provides reassurance that the level of underpayment with the youth rates is not as high as previously observed – and much of the observable underpayment was due to apprentices for whom a lower wage floor was legitimate – the underpayment estimates for young workers should be treated as a lower bound.

National Minimum Wage

5.37 Underpayment appears higher if we measure it relative to those covered by the rates (those paid at or below), excluding those paid above the rates for whom potential non-compliance with the minimum wage is arguably less relevant. Using this measure, 6.8 per cent of 16-17 year olds and 15.7 per cent of 18-20 year olds were paid below their age-appropriate hourly wage in April 2015. These compared with 10.1 per cent of 21-24 year olds and 14.6 per cent of those aged 25 and over.

Figure 5.13: Percentage Paid Below Their Age-related Minimum Wage Rate, by Age, UK, 1999-2015



Source: LPC estimates based on ASHE: without supplementary information, April 1998-2004; with supplementary information, April 2004-2006; 2007 methodology, April 2006-2011; and 2010 methodology, April 2011-2015, low pay weights including those not on adult rates of pay, UK.

Notes:

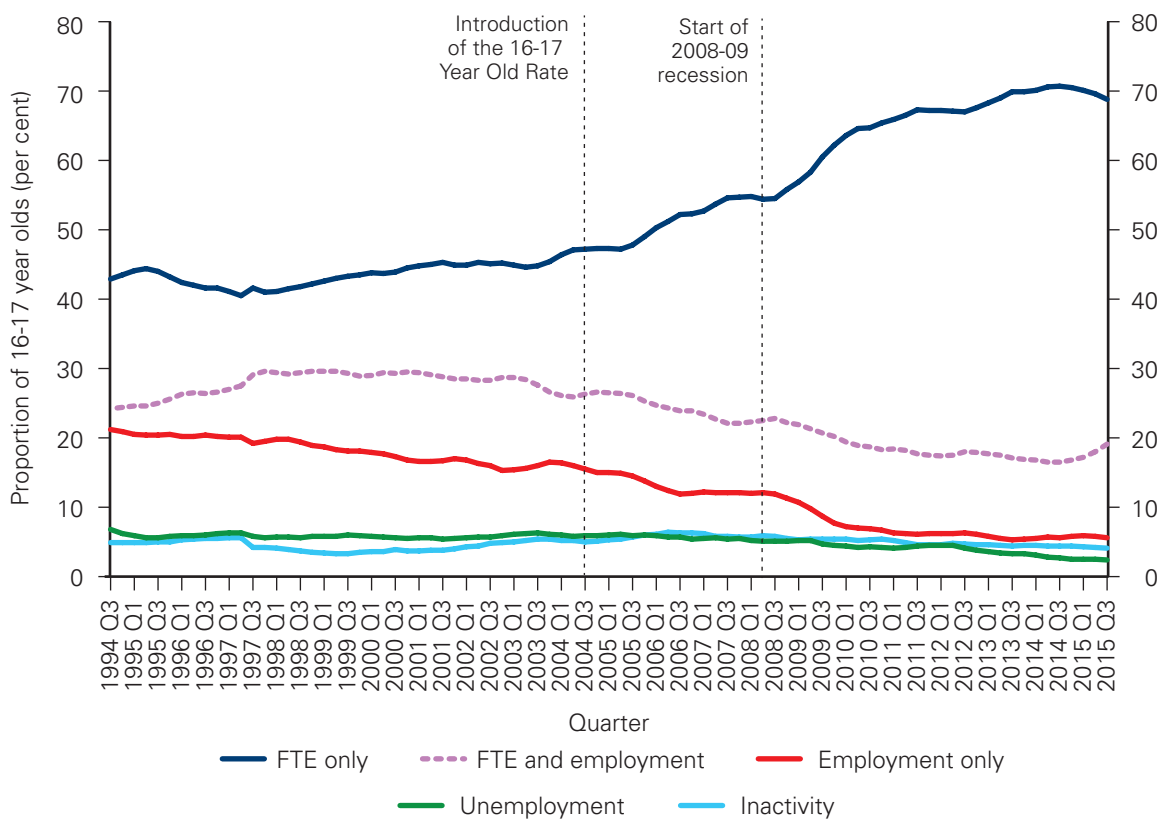
- Direct comparisons before and after 2004, 2006 and 2011 should be made with care due to changes in the data series.
- Data include apprentices unless specified.

5.38 Overall, analysis of the bite and use of the rates provide insights which point in different directions in terms of future upratings. On the one hand the data could suggest greater scope to increase the YDR than the 16-17 Year Old Rate: the bite is falling for 18-20 year olds but not yet for 16-17 year olds, and the proportion paid at the NMW is falling for 18-20 year olds but still rising for 16-17 year olds. An alternative interpretation of the data suggests greater scope to increase the 16-17 Year Old Rate: the bite of the 16-17 Year Old Rate remains lower than the bite of the YDR; and 16-17 year olds are less likely to be paid at their minimum than 18-20 year olds, though this needs to be balanced against the earlier evidence in the chapter of weaker average earnings growth for 16-17 year old workers. Both youth groups have a lower bite than 21-24 year olds – and are less likely to be paid at the minimum wage – issues which were explored in more detail in Chapter 4.

Trends in Employment

- 5.39** In addition to looking at pay and the impact of the NMW on earnings, employment and unemployment data remain the critical test of the ability of the youth labour market to sustain increases in the NMW.
- 5.40** Figure 5.14 shows the long-term picture for 16-17 year olds. As noted earlier, since the late 1990s a growing proportion of this age group has been in full-time education, accompanied by declining labour market engagement (whether measured by having a job or combining work and study). These trends accelerated during the recession.
- 5.41** The recent picture has been one of modest change in this pattern, with proportions in FTE only levelling off from 2013, and the decline in combined work and study slowing. Indeed, there has been an increase in the last year in those working while studying, suggesting that they are finding it easier to find part-time work. In the year to the third quarter of 2015 the proportion of 16-17 year olds in 'FTE and work' increased by 2.5 percentage points to 19.1 per cent, alongside a fall in the proportion unemployed (down 0.3 percentage points to 2.4 per cent). While the proportion solely in employment was unchanged at 5.6 per cent, the proportion inactive fell 0.4 percentage points to 4.1 per cent. Hence the recent story has been of tentative labour market improvement for 16-17 year olds, particularly in relation to working while studying.

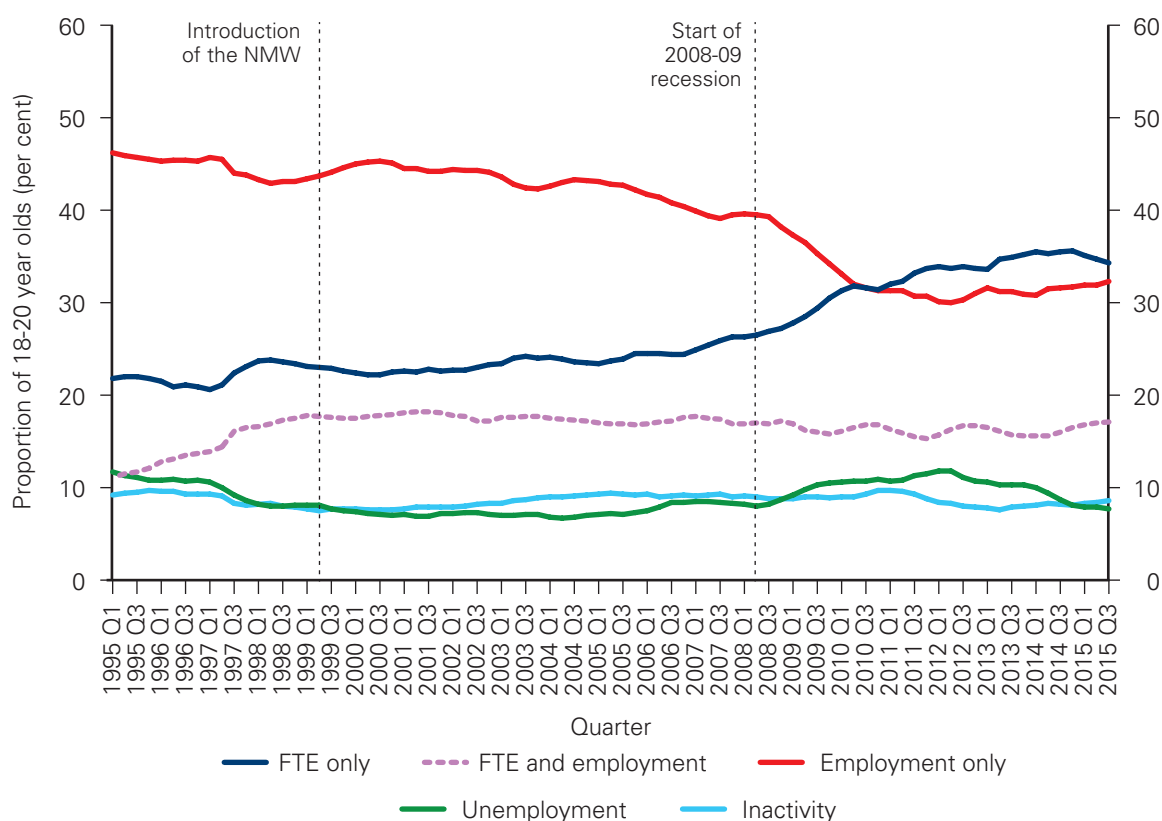
Figure 5.14: Economic Activity of 16-17 Year Olds, UK, 1994-2015



Source: LPC estimates based on LFS Microdata, quarterly, four-quarter moving average, UK, Q4 1993-Q3 2015.

5.42 Figure 5.15 shows the pattern for 18-20 year olds. Again the long-term trend is of falling numbers engaged solely in employment – from the early 2000s to 2012 proportions fell – alongside rising full-time education. After significantly rising unemployment and falling employment during and after the recession, the recent picture has been one of improvement, a trend that has continued in the year to the third quarter of 2015. Over this period, the proportion in FTE and part-time work increased by 1.1 percentage points to 17.1 per cent – a return to the level observed in 2008 at the start of the recession. Over the same period the proportion unemployed fell 1.0 percentage point to 7.7 per cent, returning to the level observed in 2006. The proportion in employment (and not studying in FTE) also increased by 0.6 percentage points to 32.2 per cent.

Figure 5.15: Economic Activity of 18-20 Year Olds, UK, 1995-2015

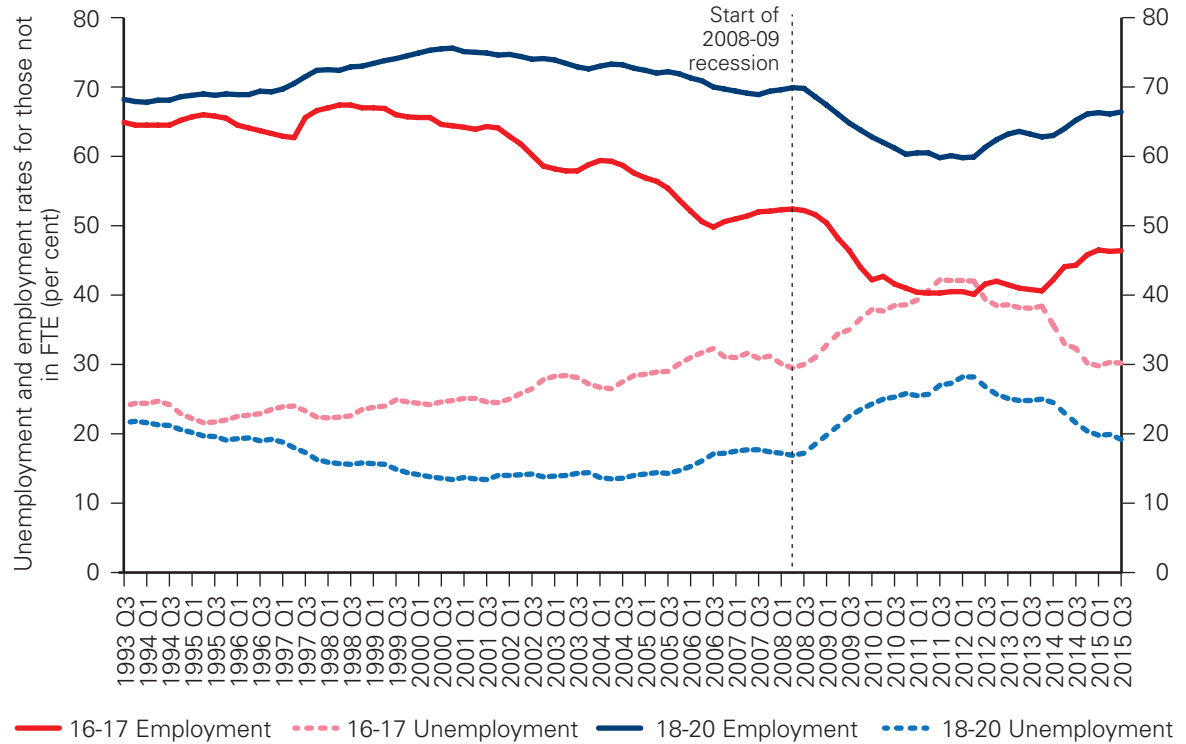


Source: LPC estimates based on LFS Microdata, quarterly, four-quarter moving average, UK, Q2 1994-Q3 2015.

5.43 As in previous years, the Commission takes particular interest in the labour market outcomes for young people not in FTE, for whom the alternatives to employment are either unemployment or inactivity, and hence are of more concern than for their counterparts in FTE who are acquiring new qualifications and skills. On this measure there has also been improvement in the recent period. Figure 5.16 demonstrates that the recession caused employment rates of young people not in FTE to fall sharply – and unemployment rates to rise sharply. However, employment and unemployment rates began improving for 18-20 year olds from 2012 – and for 16-17 year olds from the beginning of 2014 – and this trend has continued. Employment rates for 16-17 year olds rose by 2.2 percentage points, to 46.4 per cent, in the year to the third quarter of 2015; and rose by 1.2 percentage points, to 66.4 per cent, for 18-20 year olds. Unemployment rates (as a proportion of the economically active population) fell by 2.1 percentage points to 30.2 per cent for 16-17 year olds; and by 2.4

percentage points to 19.2 per cent for 18-20 year olds. However, employment rates for young people not in FTE remain well below pre-recession levels. Unemployment rates for 16-17 year olds not in FTE are similar to their position in the mid-2000s, though well above their levels of the previous 20 years. Unemployment rates for 18-20 year olds not in FTE are just above their pre-recession level.

Figure 5.16: Employment and Unemployment Rates for Young People Not in Full-time Education, by Age, UK, 1993-2015



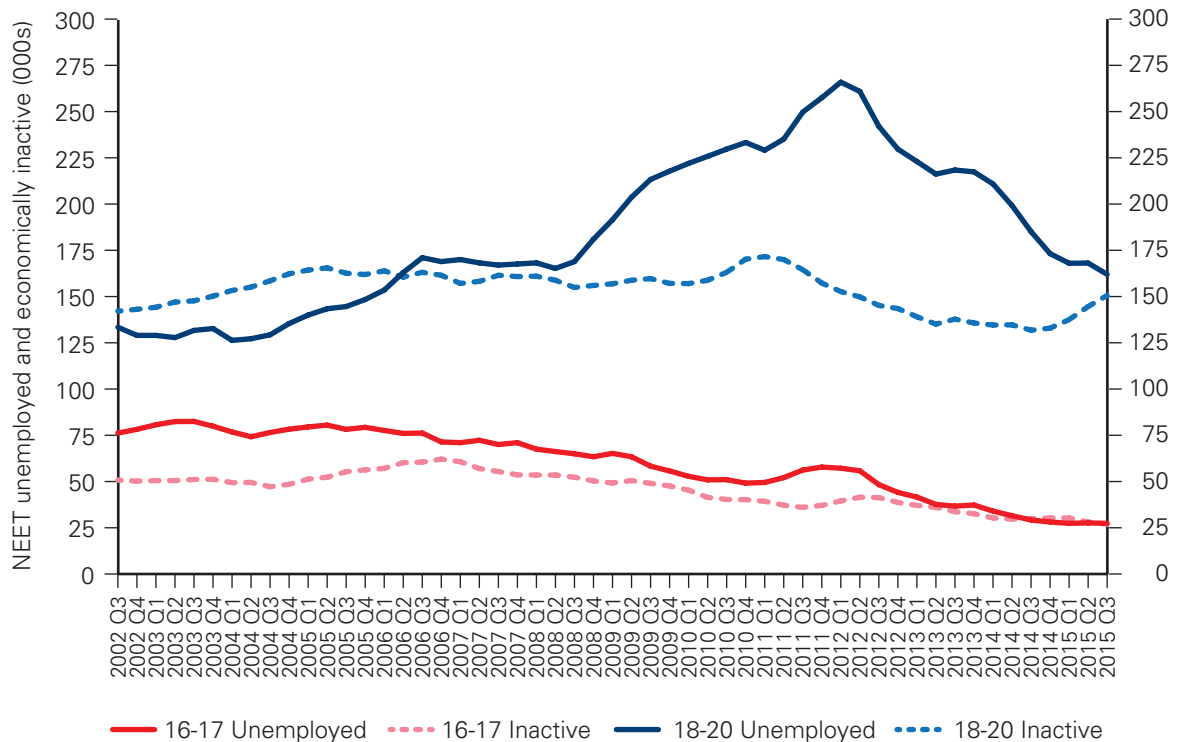
Source: LPC estimates based on LFS Microdata, quarterly, four-quarter moving average, UK, Q4 1992-Q3 2015.

5.44 A third, overlapping, group of concern to the Commission are young people not in education, employment or training (NEET). This group contains those that are unemployed or inactive and not engaged in any form of training, including part-time study. NEET status has a degree of ambiguity in relation to informing decisions about the minimum wage. An increase in the number or proportion of young people unemployed and NEET may suggest that youth rates were too high for some employers, effectively locking some young people out of the labour market. Alternatively, an increase in the number or proportion economically inactive – hence not seeking work – may suggest that the youth rates were set too low to incentivise young people to enter the labour market.

5.45 Figure 5.17 shows a general trend of falling numbers of 16-17 year olds NEET – both unemployed and inactive – since the mid-2000s. In the year to the third quarter of 2015 the number of 16-17 year olds NEET and unemployed fell by 6.3 per cent to 27,400 and the number NEET and inactive fell by 10.1 per cent to 26,900. Together then, around 54,300 16-17 year olds were NEET in the third quarter of 2015 (around 3.7 per cent of the 16-17 year old population). The picture for 18-20 year olds is more mixed. Figure 5.17 demonstrates that 18-20 year olds were particularly harmed by recession, with the number unemployed and NEET climbing from the start of recession and not falling until late into 2011. However, the

number unemployed has fallen since then and this positive trend has continued over the last year with the number unemployed falling by 12.5 per cent to around 162,000 in the year to the third quarter of 2015. The number of 18-20 year olds NEET and inactive has seen an upturn over the year, rising by around 18,700 (14.2 per cent) to reach 150,600 in the third quarter of 2015. Overall, the total number of 18-20 year olds NEET fell to 312,500 (down 1.4 per cent over the year to the third quarter of 2015), but remained stable at around 13.4 per cent in percentage terms. There are insufficient data to establish whether the increase in the number of 18-20 year olds economically inactive and NEET represents a change in the trend but we will continue to monitor the data.

Figure 5.17: Young People Not in Education, Employment or Training (NEET), by Age and Activity, UK, 2002-2015



Source: LPC estimates based on ONS NEET data, four-quarter moving average, UK, Q4 2001-Q3 2015.

5.46 Overall, earnings and labour market data illustrate that young people were significantly harmed by recession – illustrating their vulnerability to economic shocks – but they appear to be recovering now, albeit with a long way to go to make up losses. Some of the changes are likely to be structural, and related to educational participation, rather than cyclical. The most recent evidence is of increased employment and relatively strong earnings growth, potentially supportive of higher increases in the youth rates in future. However, young workers’ reliance on low-paying jobs – particularly in hospitality and retail – may place them in a vulnerable position regarding any future job loss arising from the NLW. This is discussed further in the next section.

Impact of the National Living Wage on Young Workers, and the Youth Rates

- 5.47** Having reviewed the evidence on the pay and labour market position of young people, we also need to consider the impact of the key policy difference this year relative to deliberations in our previous reports: the National Living Wage. It is unclear as yet how employers will respond. While the OBR's assessment of the impact of the NLW assumes some job loss, and loss of hours, it does not include any assessment of the impact on those not covered by the NLW. The extent to which workers under 25 years old and apprentices are affected will depend on the strategies adopted by employers.
- 5.48** As with the 21-24 year olds discussed in Chapter 4, 18-20 year olds are potentially at risk if employers reduce their reliance on low-paid workers. In addition, Dickson and Papps (2016) suggested that employment of younger workers may be affected by the NLW as workers currently in those jobs may become less likely to move jobs. If so, there may be fewer opportunities available in relation to replacing existing workers. On the other hand, relatively higher pay for workers aged 25 and over, or for workers aged 21-24, may lead employers to substitute between older and younger workers. Evidence earlier in this chapter shows that employers in the retail and hospitality sectors use younger and older workers in similar proportions, something potentially consistent with them being interchangeable for some roles. This could particularly benefit employment of 18-20 year olds, who would be potential substitutes for older workers to a greater extent than their 16-17 year old counterparts.
- 5.49** It is also probable that some young people will gain in higher hourly earnings. While employers are not obliged to pay the NLW to workers under 25 years of age, some have told us in evidence that they do not intend to pay different rates of pay to workers 'doing the same job'. When the youth rates were frozen in 2012, there was an increase in the proportion of 18-20 year olds subsequently paid at the level of the NMW.
- 5.50** There is limited evidence on the balance between these considerations. Few employers have said to us in evidence that they intend to substitute between workers, but some argued for maximum flexibility in the pay floor any event. Some are squeezing the wider pay packet to fund the NLW. A number have advised that they are considering, or will eventually consider, reduced hours. Others are considering initiatives to raise productivity in order to manage the increasing cost of the NLW.
- 5.51** All this has a bearing upon the extent to which the NLW should affect the future path of the youth rates, including the changing relative value and the extent to which the introductory gap between the youth rates and the NLW should be maintained, reduced or allowed to increase over time. Too high a level for the youth rates may price out younger workers if employers look to substitute workers with capital (investing in new technology or ways of providing services). A lower level reduces these risks, but widens the gap compared with the NLW, increasing incentives to substitute younger workers for older. There may also be effects at the margin – with workers near any age threshold where there is a large jump in the minimum wage most likely to suffer employment detriment. The analysis that follows illustrates these tensions.

National Minimum Wage

5.52 Table 5.1 shows what would happen to the bite and coverage of the youth rates if there was no differentiation by age and they followed the path of the NLW (as of January 2016, based on a hypothetical even bite profile), starting with an increase to £7.20 from October 2016, rising to £9.16 in October 2020. Our analysis suggests that it would lead to high bites and coverage. Indeed, by April 2017 the bite for 16-17 year olds would have reached 100 per cent and over three quarters (77.8 per cent) would be on the minimum wage. Coverage for 18-20 year olds would increase four-fold, with almost half being paid at the minimum wage by April 2017. By October 2020, nine in ten 16-17 year olds, and seven in ten 18-20 year olds, would be paid at the minimum wage.

Table 5.1: Estimated Bite and Coverage for Young Workers Paid at the National Minimum Wage/National Living Wage, UK, 2015-2020

Measurement Period	Rate (£)		Bite (%)		Coverage (%)	
	16-17	18-20	16-17	18-20	16-17	18-20
2015Q2	£3.79	£5.13	72.1	75.4	11.1	12.6
2016Q2	£3.87	£5.30	71.1	75.3	11.1	12.6
2017Q2	£7.20	£7.20	100.0	98.5	77.8	48.0
2017Q4	£7.64	£7.64	100.0	100.0	83.5	58.3
2018Q4	£8.12	£8.12	100.0	100.0	85.5	62.1
2019Q4	£8.62	£8.62	100.0	100.0	87.3	66.2
2020Q4	£9.16	£9.16	100.0	100.0	88.8	69.4

Source: LPC estimates based on ASHE: 2010 methodology, April 2015, low pay weights including those not on adult rates, excluding Year One Apprentices, UK; and OBR average hourly earnings index, November 2015.

Notes:

- Bite and coverage estimated 6 months after the increase in the minimum wage.
- Assumes that the NLW follows an even bite path to 2020.
- Two estimates are shown for 2017, corresponding to the October 2016 uprating (measured April 2017) and the April 2017 uprating (measured October 2017), assuming alignment of the youth, adult and NLW uprating from April 2017.

5.53 Table 5.2 shows the bite and coverage for 16-17 year olds to October 2020 with two alternative hypothetical scenarios; first, assuming that the 16-17 Year Old Rate increases in line with median earnings growth for 16-17 year olds;¹³ and second, assuming that 16-17 year olds receive the same percentage increase as their counterparts aged 25 and over in order to maintain the current differential between the 16-17 Year Old Rate and the NMW, beginning with an increase of 7.5 per cent in October 2016. The table shows that maintaining the current differential would increase the bite from 71.6 per cent currently to 73.6 per cent in April 2017, rising to 81.7 per cent in October 2020. Coverage of the 16-17 Year Old Rate would almost double, from 11.1 per cent currently to 21.3 per cent in October 2020.

¹³ Note that there are no earnings forecasts for young workers. The examples presented here assume that both the youth rates and earnings for 16-17 year olds grow at similar levels, using OBR Average Hourly Earnings growth forecasts for illustrative purposes.

Table 5.2: Estimated Bite and Coverage of the 16-17 Year Old Rate Under Two Scenarios: (1) Following Average Earnings Growth; and (2) Following the Projected Path of the National Living Wage, UK, 2015-2020

16-17 Year Olds	Minimum Wage Growth (%)		Bite (%)		Coverage (%)		Rate (£)		
	Measurement Period (a)	Average Earnings (b)	NLW Increase (c)	Average Earnings (d)	NLW Increase	Average Earnings	NLW Increase	Average Earnings	NLW Increase
2015Q2				72.1	72.1	11.1	11.1	3.79	3.79
2016Q2				71.1	71.1	11.1	11.1	3.87	3.87
2017Q2		3.6	7.5	71.0	73.6	11.1	12.0	4.01	4.16
2017Q4		1.9	6.1	70.9	76.6	11.1	16.6	4.09	4.41
2018Q4		3.9	6.3	70.9	78.3	11.1	17.9	4.25	4.69
2019Q4		3.9	6.2	70.9	80.0	11.1	20.1	4.41	4.98
2020Q4		4.1	6.3	70.9	81.7	11.1	21.3	4.59	5.29

Source: LPC estimates based on ASHE: 2010 methodology, April 2015, low pay weights including those not on adult rates, excluding Year One Apprentices, UK; and OBR average hourly earnings index, November 2015.

Notes:

- Estimated 6 months after the increase in the minimum wage.
- Estimated hourly average earnings growth between previous and current measurement period.
- Assumes that youth rates are increased in line with the NLW increases, although starting 6 months later than the NLW (from October, rather than April, 2016) and that the NLW follows an even bite path to 2020.
- Assumes that earnings grow in line with forecast. If out-turn earnings growth is less than forecast, bite and coverage will increase.
- Two estimates are shown for 2017, corresponding to the October 2016 uprating (measured April 2017) and the April 2017 uprating (measured October 2017), assuming alignment of the youth, adult and NLW uprating from April 2017.
- Excludes apprentices in their first year.

5.54 Table 5.3 repeats the analysis for 18-20 year olds. Again it demonstrates that following the path of the NLW (so as to maintain the current differential between the YDR and the adult rate) would increase the bite of the YDR substantially – from 75.4 currently to 77.9 per cent in April 2017, rising to 86.5 per cent in October 2020. Coverage of the YDR would increase from 12.6 per cent in April 2015 to 16.3 per cent in April 2017, rising to 24.1 per cent in October 2020.

Table 5.3: Estimated Bite and Coverage of the Youth Development Rate Under Two Scenarios: (1) Following Average Earnings Growth; and (2) Following the Projected Path of the National Living Wage, UK, 2015-2020

18-20 Year Olds	Minimum Wage Growth (%)		Bite (%)		Coverage (%)		Rate (£)	
	Average Earnings (b)	NLW Increase (c)	Average Earnings (d)	NLW Increase	Average Earnings	NLW Increase	Average Earnings	NLW Increase
2015Q2			75.4	75.4	12.6	12.6	5.13	5.13
2016Q2			75.3	75.3	12.6	12.6	5.30	5.30
2017Q2	3.6	7.5	75.1	77.9	12.6	16.3	5.49	5.70
2017Q4	1.9	6.1	75.2	81.2	12.6	19.5	5.60	6.04
2018Q4	3.9	6.3	75.1	83.0	12.6	20.5	5.81	6.42
2019Q4	3.9	6.2	75.2	84.8	12.6	22.5	6.04	6.82
2020Q4	4.1	6.3	75.0	86.5	12.6	24.1	6.29	7.25

Source: LPC estimates based on ASHE: 2010 methodology, April 2015, low pay weights including those not on adult rates, excluding Year One Apprentices, UK; and OBR average hourly earnings index, November 2015.

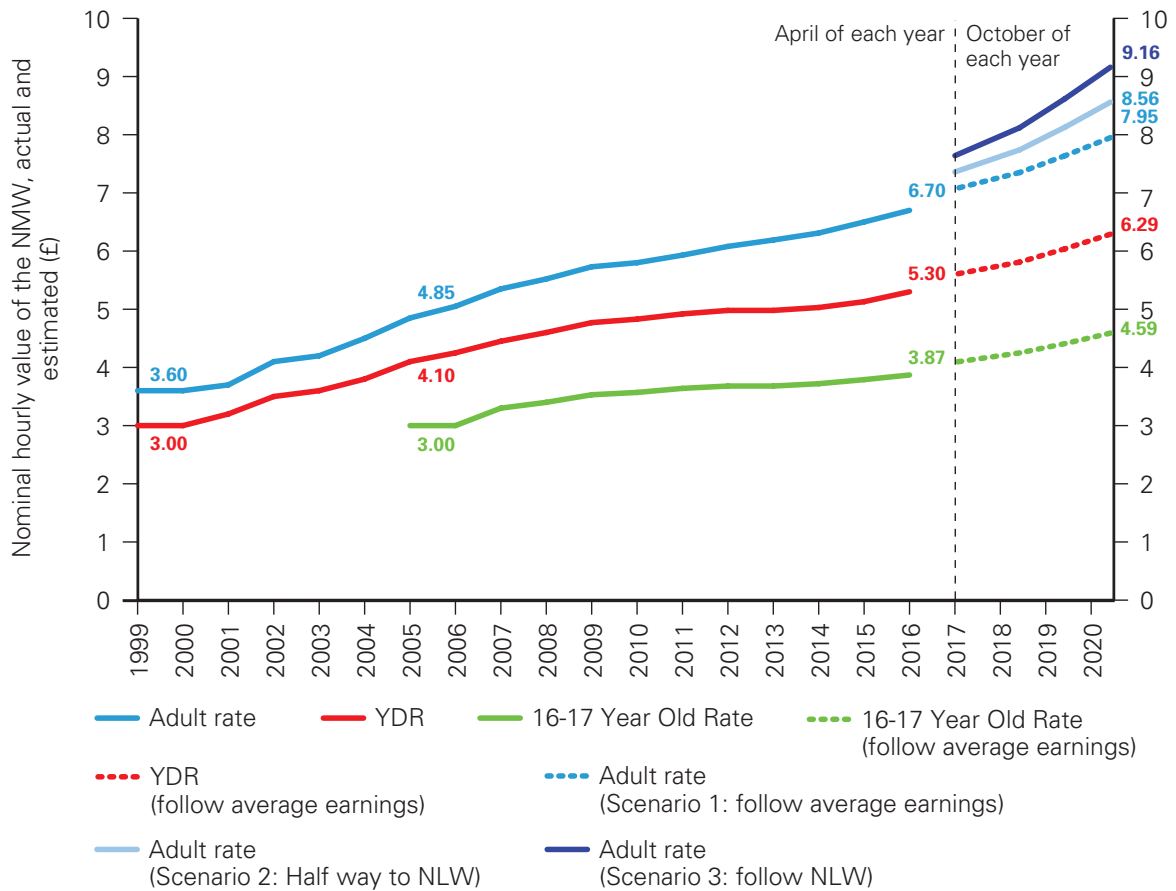
Notes:

- Estimated 6 months after the increase in the minimum wage.
- Estimated hourly average earnings growth between previous and current measurement period.
- Assumes that youth rates are increased in line with the NLW increases, although starting 6 months later than the NLW (from October, rather than April, 2016) and that the NLW follows an even bite path to 2020.
- Assumes that earnings grow in line with forecast. If out-turn earnings growth is less than forecast, bite and coverage will increase.
- Two estimates are shown for 2017, corresponding to the October 2016 uprating (measured April 2017) and the April 2017 uprating (measured October 2017), assuming alignment of the youth, adult and NLW uprating from April 2017.
- Excludes apprentices in their first year.

5.55 But we also need to consider the obverse situation: what happens were the relative value of the youth rates to decline, as the value of the pay floor for workers aged 25 and over went up.

5.56 Figure 5.18 (also presented in the previous chapter) shows that the difference in cash terms between the youth and adult rates has increased over time, reflecting LPC recommendations that sought to avoid pricing out younger workers in view of weak earnings and employment performance. The gap is set to increase further from April 2016. At the introduction of the NMW in 1999, the YDR (£3.00) was 60 pence lower than the adult rate (£3.60). By 2005, the gap between the YDR (£4.10) and the adult rate (£4.85) had increased to 75 pence; and the 16-17 Year Old Rate, at its introductory rate of £3.00, was £1.85 below the adult rate. The cash difference between the youth and adult rates increased further, through the recession, and up to April 2015, when the YDR was £1.40 less in cash terms, and the 16-17 Year Old Rate £2.83 less in cash terms, than the adult rate of the NMW.

Figure 5.18: Nominal Hourly Value of the Youth and Adult Rates Under Three Hypothetical Scenarios, UK, 1999-2020



Source: NMW rates to April 2016; Estimated minimum wage rates from October 2017 based on ASHE: April 2015, standard weights including those not on adult rates of pay, UK; and OBR average hourly earnings index, November 2015.

Notes:

- a. Scenario 2 takes the average of the rates produced with scenario 1 (average earnings) and scenario 3 (paid at the NLW from October 2016).
- b. Scenario 3 assumes that 21-24 year olds receive the NLW uprating to £7.20 in October 2016 and a further uprating aligned with adults aged 25 and over from April 2017; and that the NLW follows an even bite path to 2020.

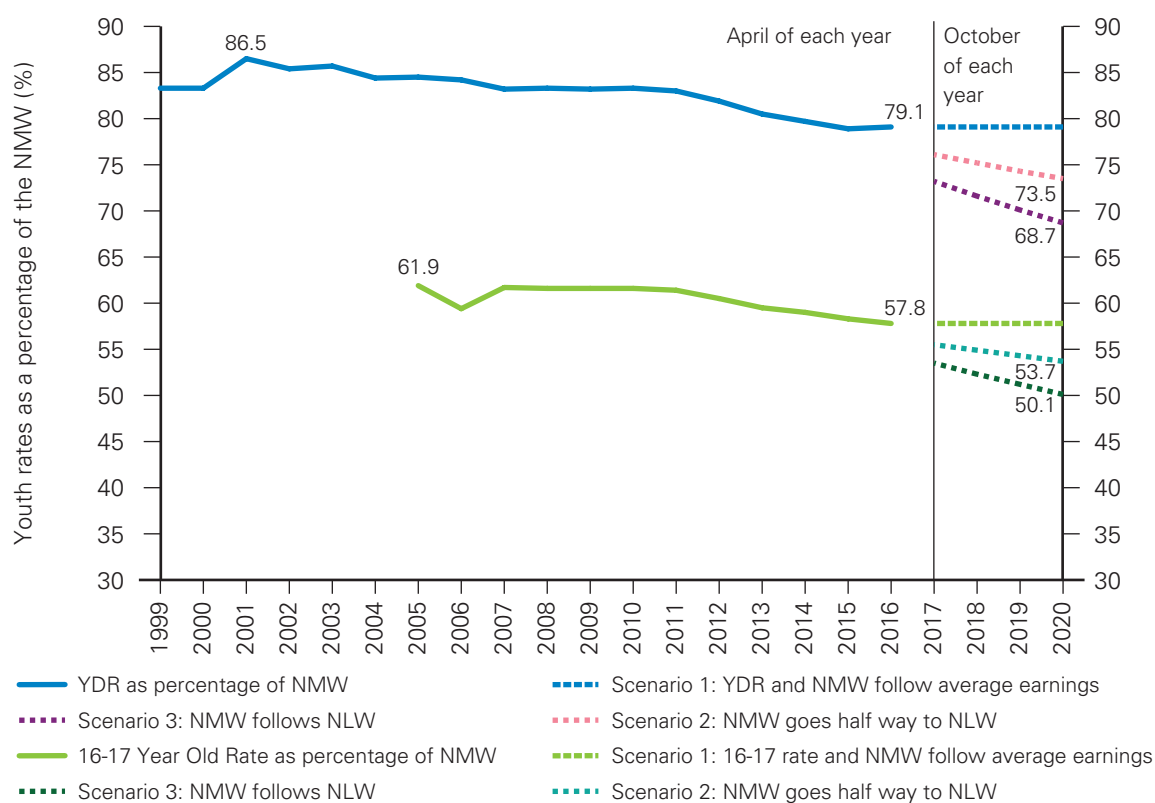
5.57 Figure 5.18 also shows that, assuming the youth rates increased in line with average earnings growth while the NLW followed a hypothetical trajectory to its 2020 target rate of 60 per cent of average earnings, the YDR would be lower than the forecast value of the NLW by £2.87 in cash terms, and the 16-17 Year Old Rate lower by £4.57, in October 2020.

5.58 Figure 5.19 shows the value of the YDR and 16-17 Year Old Rate as a proportion of the adult rate. The value of the YDR fell from 86.5 per cent of the adult rate in 2001 to 79.1 per cent in April 2015; the 16-17 Year Old Rate fell from 61.9 per cent in 2005 to 57.8 per cent in 2015. If future increases in the youth rates were set with regard to average earnings growth while the adult rate followed a hypothetical trajectory for the NLW to its 2020 target rate of 60 per cent of average earnings, the YDR would represent 68.7 per cent of the value of the NLW, and the 16-17 Year Old Rate half (50.1 per cent) the forecast value of the NLW by April 2020. Assuming the rate for 21-24 year olds moved half way to the forecast value of the NLW in 2020 and the other rates followed average earnings, the value of the YDR and 16-17 Year Old Rate would fall to 73.5 per cent and 53.7 per cent of the value of the adult rate.

National Minimum Wage

5.59 A widening gap between the youth, adult and NLW rates could potentially encourage substitution, protecting young workers' employment – but at the price of lower pay for these groups, and reduced employment share for older workers. Too large a gap could also present employment risks for some young workers when they reach the threshold age of eligibility for the higher rate: their pay, and hence their cost to an employer, could increase substantially.

Figure 5.19: Youth Rates as a Proportion of the Adult Rate of the National Minimum Wage, UK, 1999-2020



Source: NMW rates to April 2016; Estimates from October 2017 based on ASHE: April 2015, standard weights including those not on adult rates of pay, UK; and OBR average hourly earnings index, November 2015.

Notes:

- Scenario 2 takes the average of the rates produced with scenario 1 (average earnings) and scenario 3 (paid at the NLW from October 2016).
- Scenario 3 assumes that 21-24 year olds receive the NLW uprating to £7.20 in October 2016 and a further uprating aligned with adults aged 25 and over from April 2017; and that the NLW follows an even bite path to 2020.

Research on the Impact of the Minimum Wage on Young People

5.60 Underpinning these considerations is a basic analytical question about the extent to which the employment demand for younger workers is a function of their absolute or relative wage cost. If absolute costs are important, a more cautious approach to rate setting for young workers may be appropriate; alternatively, if relative costs are more important, then the faster path of the NLW may allow for faster increases in the youth rates.

5.61 As noted earlier in this chapter, research commissioned for our 2015 Report provided some evidence that relative costs may be important. London Economics (2015) found that the smaller relative increases in the youth minimum wage rates compared with the adult rate

between October 2010 and October 2013, including a freeze in 2012, protected young people's employment.

- 5.62** Building on this research, Dickson and Papps (2016) found that higher increases in the 16-17 Year Old Rate reduced employment for 16-17 year olds, suggesting that the absolute level of the youth rates is also important. However, they also found that the relative level of the rates had a bearing: the employment of 16-17 year olds increased in response to either a fall in the real cost of 16-17 year olds or a rise in the real cost of 21-24 year olds. In addition, they found that increases in the cost of 18-20 year olds had a negative effect on the employment of 16-17 year olds, perhaps because employers knew that the youngest workers would soon be eligible for the YDR. Unlike London Economics (2015), they found no significant evidence of either direct or spillover effects for 18-20 year olds from increases in their own or other minimum wages.
- 5.63** The finding that 16-17 year olds benefitted from increases in the cost of 21-24 year olds suggests, tentatively, that there may be substitution between older and younger workers as the NLW progresses, and that allowing the wage gap between younger workers and 21-24 year olds to increase may increase the likelihood of this.
- 5.64** A related consideration is how productivity differentials between younger and older workers bear upon rate-setting decisions. Productivity differences between workers of different ages may influence the wages employers are willing to pay younger workers, and the extent to which they are likely to substitute between older and younger workers.
- 5.65** London Economics (2016) estimated average productivity by sector to investigate the impact of the National Minimum Wage on the relationship between wages and productivity for different age groups. Its findings suggested, tentatively, that while across the economy as a whole 16-20 year olds were 'overpaid' relative to their productivity when compared with older workers, within the low-paying sectors that we focus on, 16-20 year olds were 'underpaid' compared with 21-29 year olds (hence the youngest workers' pay deficit was greater than their productivity deficit), while being 'overpaid' compared with 30-49 and 50-59 year olds.
- 5.66** The findings for the low-paying sectors could suggest that widening the gap between the youth rates and the NLW going forwards may have some basis in terms of productivity differentials between 16-20 year olds and workers aged 30 and over. But there may be less justification for increasing the differential between the youth rates and the NMW for 21-24 year olds. Within the low-paying sectors, the differences in productivity would not appear to justify increasing the pay floor for 21-24 year olds at a significantly faster rate than the pay floor for younger workers.
- 5.67** However, the authors note that the analysis is tentative because it is based on small sample sizes and further research is required to confirm the findings. Aligned to this there are widely recognised difficulties in measuring productivity at the level of the individual which suggest that the results, although indicative, should be interpreted with caution.

Apprentices

- 5.68** The remainder of this chapter focuses on the final group for whom we are required to reach a decision regarding their pay floor: apprentices. There remains a cross-party and cross-nation commitment to expand the number of apprenticeships, with the Government pledged to have 3 million apprenticeship starts over the course of this Parliament. Apprentice pay matters therefore not just in relation to preventing exploitation of this group of workers, but also in relation to supply of places. The chapter considers overall trends in apprentice pay and the latest evidence of levels of non-compliance. We set out, where relevant, findings from commissioned research, stakeholder views and analysis of policy changes. However, there is relatively limited new data available since our previous report.
- 5.69** This has relevance particularly in view of considerable recent policy change. Part of the backdrop to our deliberations this year is that minimum wage apprentices received a 21 per cent increase in October 2015 – to £3.30. Table 5.4 shows that this increase is substantially greater than previous increases in the Apprentice Rate – or in any other rate in percentage terms. In our 2015 Report we had recommended an increase in the Apprentice Rate from October 2015 of 2.6 per cent to £2.80, but the Government argued that a substantial increase was merited in order to make apprenticeships more attractive to prospective applicants.

Table 5.4: Percentage Increase in Minimum Wage Rates, UK, 1999-2016

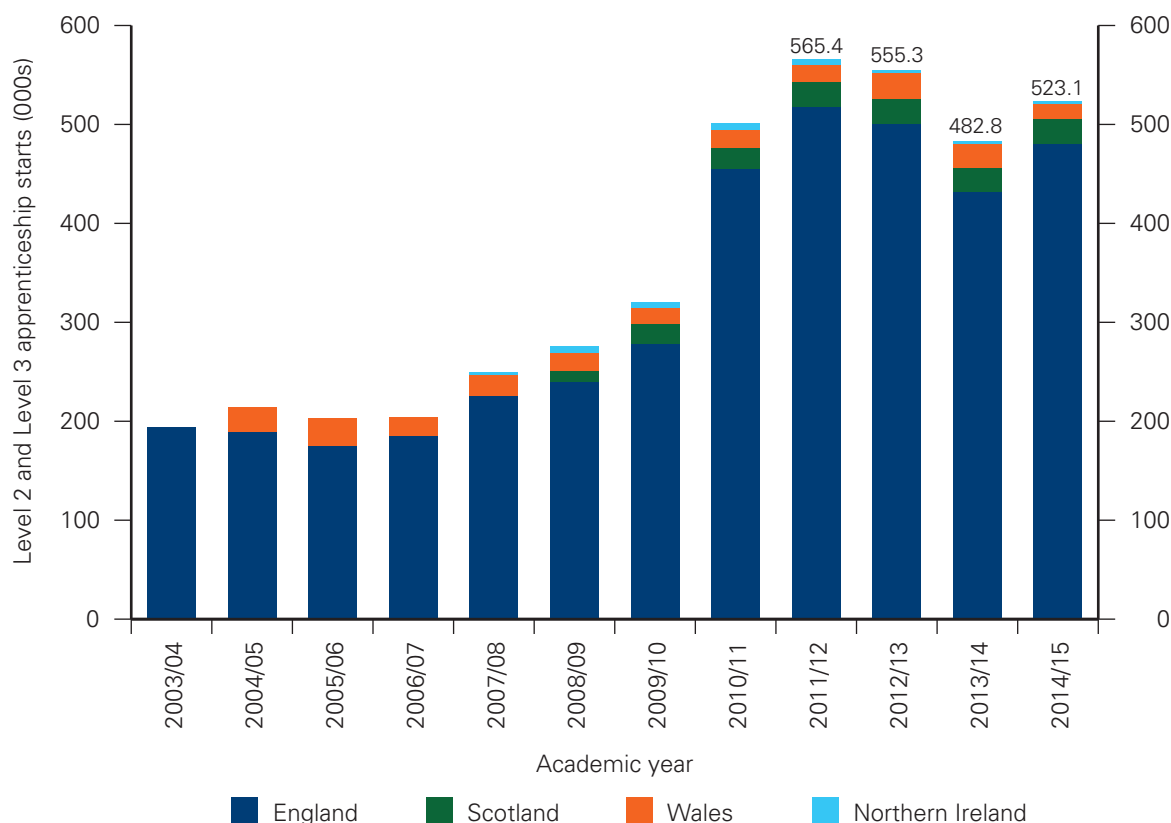
Annual Increase in the Minimum Wage (per cent)				
April (ASHE reference period) of respective year	16-17 Year Old Rate (%)	Youth Development Rate (%)	Adult Rate NMW (%)	Apprentice Rate (%)
1999				
2000		0.0	0.0	
2001		6.7	2.8	
2002		9.4	10.8	
2003		2.9	2.4	
2004		5.6	7.1	
2005		7.9	7.8	
2006	0.0	3.7	4.1	
2007	10.0	4.7	5.9	
2008	3.0	3.4	3.2	
2009	3.8	3.7	3.8	
2010	1.1	1.3	1.2	
2011	2.0	1.9	2.2	
2012	1.1	1.2	2.5	4.0
2013	0.0	0.0	1.8	1.9
2014	1.1	1.0	1.9	1.1
2015	1.9	2.0	3.0	1.9
2016	2.1	3.3	3.1	20.9
Increase since the introduction of the Apprentice Rate in October 2010	6.3	7.7	13.0	32.0

Source: LPC.

Apprenticeship Starts

5.70 Against the backdrop of the Government's policy objective of more apprenticeships, we now consider how the number of starts has changed in recent years. In our 2015 Report we noted a sharp fall across the UK between 2012/13 and 2013/14. The fall was mainly among apprentices aged 25 and over and coincided with new funding arrangements in England which saw the removal of financial support for employers of apprentices aged 25 and over and the introduction of personal training loans. The policy was subsequently revised, and Figure 5.20 shows that the total number of Level 2 and Level 3 apprenticeship starts across the UK rebounded strongly in 2014/15, increasing by around 40,300 (8.3 per cent). However, they remain around 42,000 short of the record high in 2011/12.

Figure 5.20: Level 2 and Level 3 Apprenticeship Starts, UK, 2003/04-2014/15



Source: UK Administrations, 2003/04-2014/15.

Notes:

- a. England and Wales figures are for the academic year; Northern Ireland and Scotland figures are for the financial year. No earlier years were available for Scotland, Wales and Northern Ireland.
- b. Data for 2014/15 are provisional, and may be subject to minor revision.
- c. Data exclude apprenticeship starts above Level 3.

5.71 Table 5.5 shows starts across the UK broken down by country. It demonstrates that the rebound in 2014/15 was due mainly to increases in apprenticeship starts in England, while apprenticeship starts fell in Wales. Starts for Level 2 and Level 3 apprenticeships increased by 11.3 per cent (around 49,000) in England, reaching 481,000 starts. Starts fell in Wales by 37 per cent (around 9,000) to 15,200, the lowest number of starts recorded since 2004/05. The number of starts increased very slightly in Scotland (up 0.8 per cent) and Northern Ireland (up 2.3 per cent).

Table 5.5: Level 2 and Level 3 Apprenticeship Starts, by Country, UK, 2003/04-2014/15

Year	UK	England	Scotland	Wales	Northern Ireland
2003/04	-	193.6	-	-	-
2004/05	-	189.0	-	24.6	-
2005/06	-	174.9	-	28.1	-
2006/07	-	184.3	-	19.6	-
2007/08	-	224.7	-	21.6	3.8
2008/09	275.6	239.8	10.6	18.1	7.1
2009/10	320.2	278.2	19.5	16.4	6.1
2010/11	501.1	454.9	21.0	18.6	6.6
2011/12	565.4	516.8	25.4	17.6	5.6
2012/13	555.3	500.4	25.1	25.8	4.0
2013/14	482.8	431.2	24.4	24.1	3.1
2014/15	523.1	480.1	24.6	15.2	3.2
2013/14-2014/15 (000s)	40.3	48.9	0.2	-8.9	0.1
2013/14-2014/15 (per cent)	8.3	11.3	0.8	-36.9	2.3

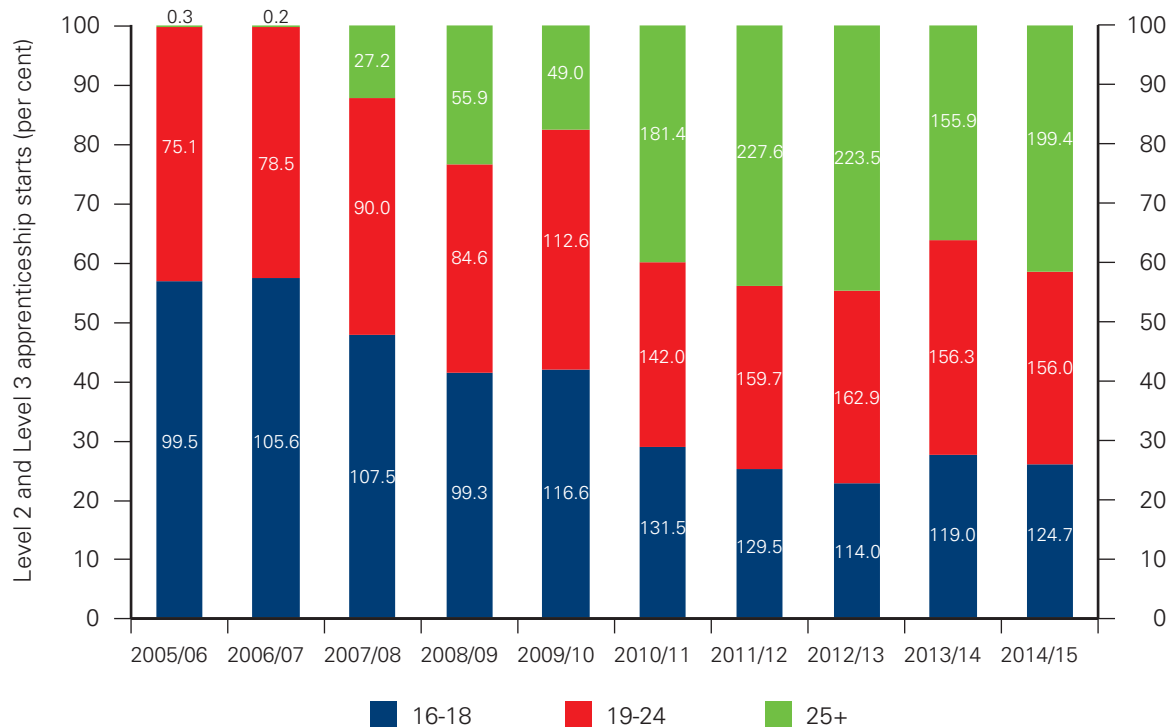
Source: UK Administrations, 2003/04-2014/15.

Notes:

- England and Wales figures are for the academic year; Northern Ireland and Scotland figures are for the financial year. No earlier years were available for Scotland, Wales and Northern Ireland.
- Data for 2014/15 are provisional, and may be subject to minor revision.
- Data exclude apprenticeship starts above Level 3.

5.72 We have noted in previous reports that increases in starts in recent years have, to a significant extent, been driven by increasing numbers of those aged 25 and over starting apprenticeships. Younger apprentices have made up a falling proportion of apprenticeships, more than halving as a proportion of starts in England since the mid-2000s. Figure 5.21 shows that the increase in apprenticeships starts in England in 2014/15 continues this trend. It was mainly due to increasing starts for those aged 25 and over – an increase of around 43,000 starts (28 per cent). Starts for 16-18 year olds increased by around 5 per cent (6,000) to 124,700 in 2014/15. This is a second year of gains, albeit the total is still below the 2010 peak for that age group of 131,500. Starts for 19-24 year olds were flat year-on-year.

Figure 5.21: Apprenticeship Starts, by Age, England, 2005/06-2014/15



Source: Individualised Learner Record, England, 2005/06-2014/15.

Notes:

- a. Data for 2014/15 are provisional and may be subject to minor revision.
- b. Data shown within bars represent thousands.

5.73 Alongside growing volumes of apprenticeship starts, there continues to be policy focus on raising the quality and increasing the numbers of apprenticeships at higher levels. The number of Level 4 or degree level apprenticeship starts doubled in England to around 19,700, accounting for 4 per cent of all starts in 2014/15. Three quarters (73 per cent) of these apprentices were aged 25 or over. In our 2015 Report we reviewed the earnings of workers on Higher Apprenticeships and concluded, in light of their higher age and average pay, that they should be exempt from the Apprentice Rate. The Government is currently considering this recommendation. Apprentices aged 25 and over will qualify for the NLW – from April 2016 onwards – once they have completed their first year of apprenticeship.

5.74 At the time of writing (January 2016) there is limited data to assess the impact of the increase in the Apprentice Rate to £3.30 (21 per cent) on the number of apprentice starts: the apprenticeship starts data presented above for 2014-15 overlap the October 2013 Apprentice Rate of £2.68 and October 2014 rate of £2.73.

5.75 The data that were available for apprenticeships starts in England for Q1 2015/16 (covering August to October 2015), were provisional and may be subject to revision. They however suggest a slight fall on the same period in 2014. Table 5.6 shows that starts were down overall by 8,550 (5 per cent) – from 161,600 in the first quarter of 2014/15 to 153,500 in 2015/16 – with the fall mainly occurring among 19-24 year olds, down by 6,440 (12 per cent), although starts for 16-18 year olds may have increased slightly.

Table 5.6: Apprenticeship Starts, England, 2014/15-2015/16

Age	Apprenticeship Starts			Age Distribution (%)		
	Q1 2014/15	Q1 2015/16	Change (%)	Q1 2014/15	Q1 2015/16	Change (ppt)
Under 19	59,200	59,650	1	36.6	39.0	2.3
19-24	52,900	46,500	-12	32.7	30.4	-2.4
25+	49,600	46,900	-5	30.7	30.6	0.0
Total	161,600	153,050	-5	100	100	

Source: Skills Funding Agency, BIS.

Notes:

- First quarter of 2014/15 compared with the first quarter of 2015/16.
- Data for 2015/16 are provisional, and may be subject to minor revision.
- Data include apprenticeship starts above Level 3.

5.76 In our Autumn 2016 Report we expect to be able to make a fuller assessment of the impact of the increase in the Apprentice Rate to £3.30, and other policy changes, on apprenticeship starts. Alongside changes in starts we will also need to consider evidence on training quality, as this is another possible adjustment mechanism for employers.

Apprentice Earnings

5.77 In previous years we have used data from ASHE and the Apprenticeship Pay Survey (APS) to report on apprentice earnings and non-compliance with the minimum wage. A key constraint this year is more limited data, where the main source for this report is ASHE 2015 as we do not have a new APS for 2015.

5.78 Another limitation relates to timing. The latest ASHE data cover April 2015, when the October 2014 Apprentice Rate of £2.73 applied, pre-dating the increase in the Apprentice Rate to £3.30 in October 2015. There is a small possibility that some employers may have increased pay ahead of October 2015 in response to announcements by the Government – requesting that the LPC consider the case for increasing the Apprentice Rate to the level of the 16-17 Year Old Rate (towards the end of 2014) and announcing the intention to increase the Apprentice Rate to £3.30 (March 2015)¹⁴ – but this is unlikely to be strongly reflected.

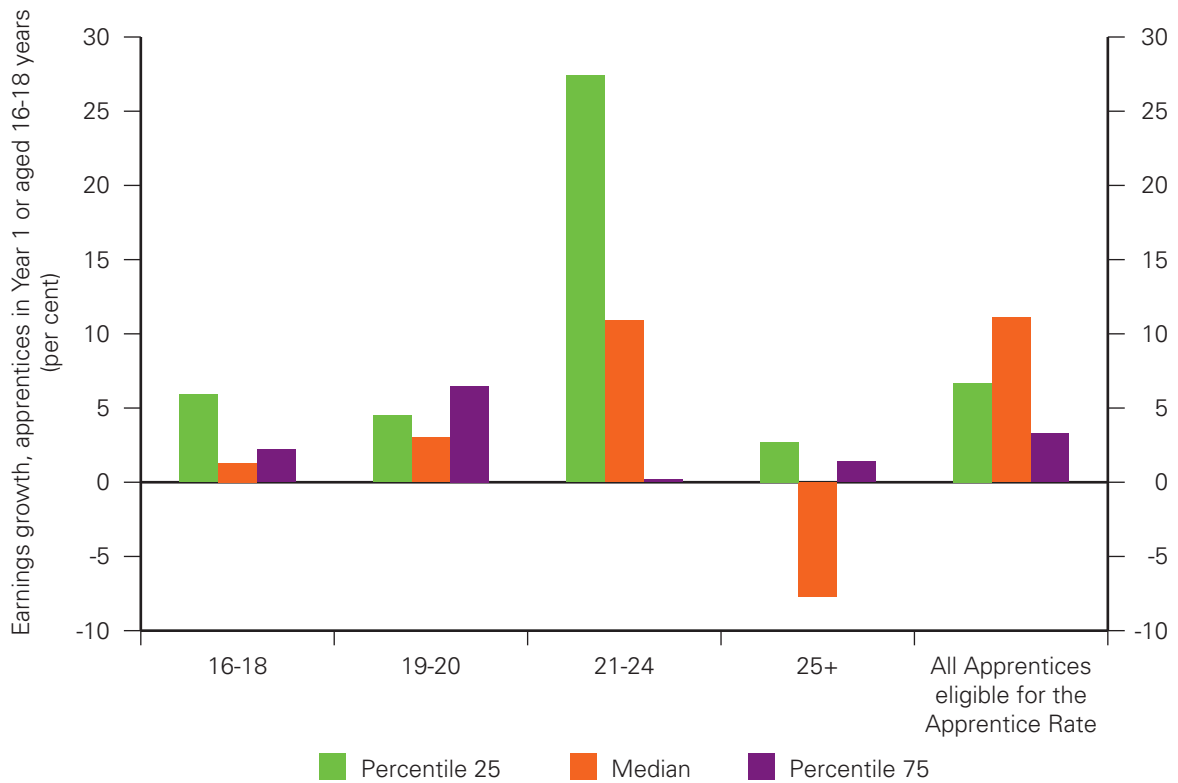
5.79 A broader limitation is that ASHE may not reflect the true level of apprentice pay. In our 2015 Report we compared ASHE data on apprentice earnings with earnings data from the 2014 Apprenticeship Pay Survey (APS). ASHE estimated higher earnings, and lower non-compliance, than the APS and we concluded that the differences may be due to the different methodologies – with ASHE relying on employer pay records and APS relying on earnings and hours data obtained directly from apprentices. We think it likely that ASHE overestimates apprentice pay: the lowest-paid apprentices may not be captured in HMRC records and thus not sampled in ASHE. Indeed the number of apprentices in ASHE is substantially fewer than the number suggested by administrative data. Additionally, the hours data recorded by employers may not cover all hours spent on training. Equally, we were worried that APS data may underestimate pay, particularly where payslip data on hours and earnings is not available. Research commissioned for this report (Drew, Ritchie and Veliotis,

¹⁴ <https://www.gov.uk/government/news/apprentice-national-minimum-wage-increases>

2016) explored the reasons for the ASHE/APS disparity, and tentatively supported our reasoning. Their initial findings confirmed that pay and hours data collected from apprentices may be unreliable. The authors also identified anomalies in the ASHE data that required deeper investigation. The research is ongoing and is discussed further below and is also summarised in Appendix 2.

- 5.80** Overall, reliance on ASHE data for this report means we need to treat the findings with some caution. It also underlines the importance of the Government commissioning another Apprenticeship Pay Survey in 2016, which could build on the insights of APS 2014.
- 5.81** In 2015, median earnings for apprentices were £6.57 in ASHE, an increase of 4.1 per cent over the year albeit there was considerable variation by age and duration of apprenticeship.
- 5.82** Figure 5.22 shows earnings growth in April 2015 for the cohort eligible for the Apprentice Rate – that is, all apprentices in the first year of an apprenticeship and all apprentices aged 16-18. According to ASHE, the hourly earnings of the Apprentice Rate cohort grew 11.1 per cent at the median between April 2014 and April 2015 (from £4.60 to £5.11). This far exceeded the increase in the Apprentice Rate –1.9 per cent – over the same period. However, further disaggregation by age shows that, within the Apprentice Rate cohort, only earnings growth for apprentices aged 21-24 year olds resembled the overall growth for the cohort as a whole (at 10.9 per cent). Younger apprentices saw much lower earnings growth at the median – 1.3 per cent for 16-18 year olds and 3.0 per cent for 19-20 year olds – while earnings fell 7.7 per cent at the median (from £8.08 to £7.45) for apprentices aged 25 and over. The data reveal higher earnings growth at the lower quartile of the earnings distribution, for all age groups although not for the cohort overall, including exceptionally high earnings growth at the lower quartile for 21-24 year old apprentices in their first year of apprenticeship (27.4 per cent).

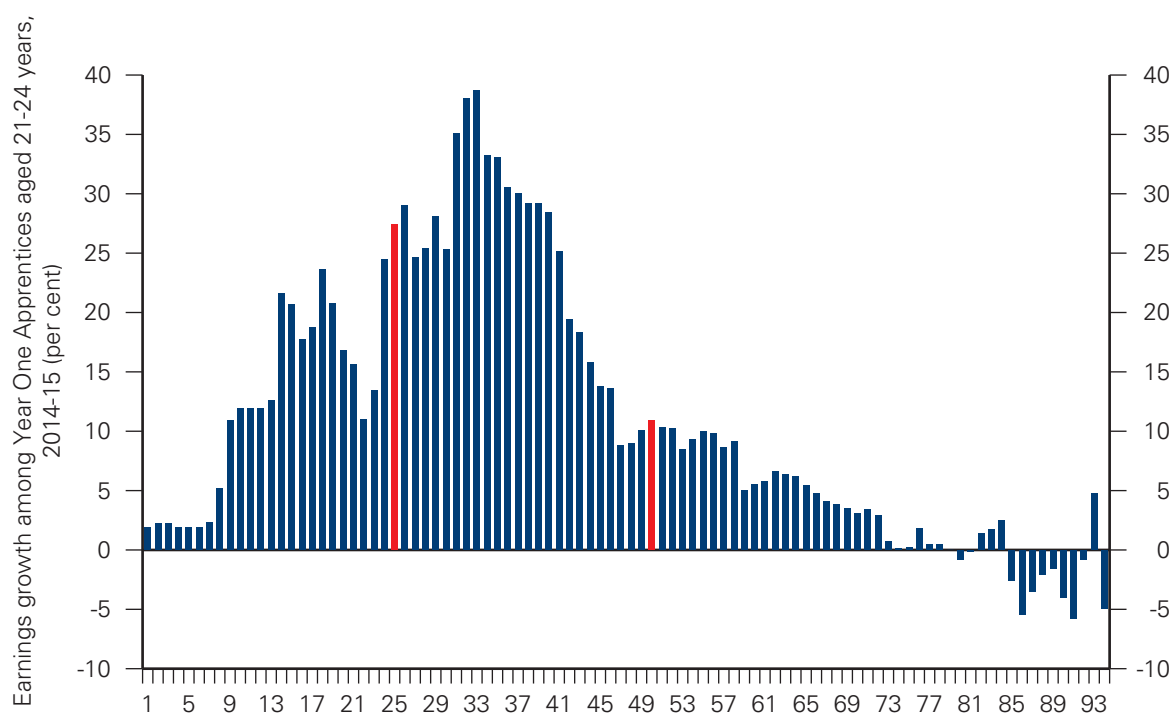
Figure 5.22: Earnings Growth Among the Cohort Eligible for the Apprentice Rate, by Age, UK, 2014-2015



Source: LPC estimates based on ASHE: 2010 methodology, April 2011-2015, standard weights including those not on adult rates of pay, UK.

5.83 Figure 5.23 shows relatively high earnings growth among apprentices aged 21-24 years through the earnings distribution, from the 9th percentile through to the 58th percentile. It is not clear what is driving the earnings growth, although modal hourly pay switched from the Apprentice Rate (£2.68) in April 2014 to the adult rate of the NMW (£6.50) in April 2015 – hence in 2015 employers were more likely to pay 21-24 year olds at their age rate, and less likely to pay them the Apprentice Rate.

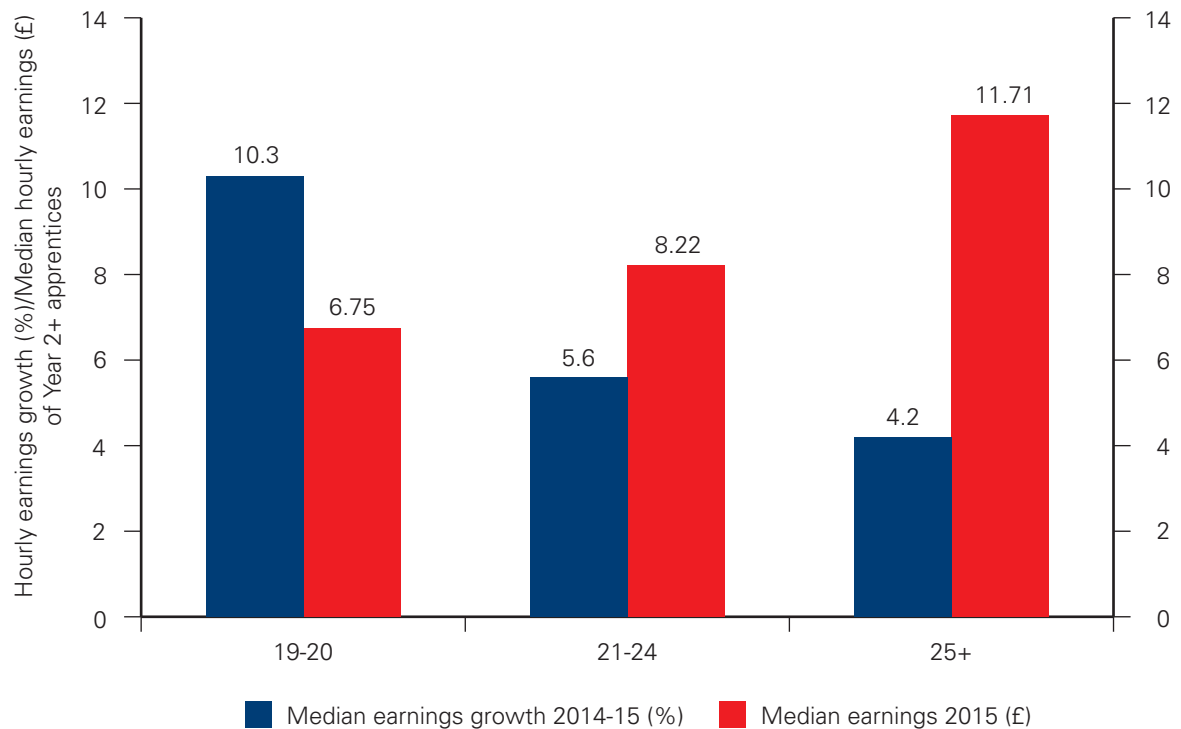
Figure 5.23: Earnings Growth Among 21-24 Year Olds in Year One of an Apprenticeship, UK, 2014-2015



Source: LPC estimates based on ASHE: 2010 methodology, April 2014-2015, standard weights including those not on adult rates of pay, UK.

- 5.84** Further analysis is needed to understand what is driving the relatively high earnings growth for the Apprentice Rate cohort overall. There is little indication that it reflects the announcement by the Government in March 2015 to increase the Apprentice Rate to £3.30 an hour from October 2015; an examination of the hourly earnings distribution does not show any emerging focal point for payment around £3.30 an hour, among any age group. It is also unlikely to be driven by the higher earnings growth of 21-24 year olds: 21-24 year olds accounted for around one in seven (13.7 per cent) of the cohort eligible for the Apprentice Rate. A similar proportion were aged 25 and over (12.1 per cent), while 16-18 year olds accounted for over half of the cohort (51.7 per cent) – and these two latter groups experienced either negative, or low, earnings growth. Furthermore, even when 21-24 year olds are excluded, earnings growth for the Apprentice Rate cohort remains high (10.8 per cent).
- 5.85** It is likely that compositional changes in ASHE partly contribute to the high earnings growth. Apprentices aged 25 and over, whose earnings are generally much higher than younger apprentices, increased as a proportion of the cohort between 2014 and 2015 – from 7.6 per cent to 12.1 per cent – and there may also have been other compositional changes.
- 5.86** Figure 5.24 shows that among older apprentices in their second year of an apprenticeship, for whom the age-related rates apply, those aged 19-20 years experienced the highest earnings growth at the median – 10.3 per cent compared with 5.6 per cent for 21-24 year olds and 4.2 per cent for those aged 25 and over. However, the oldest cohort earned considerably more at the median than younger apprentices and the hourly earnings of 21-24 year olds were closer to 18-20 year olds than their counterparts aged 25 and over, despite the two older age groups sharing the wage floor of the adult NMW.

Figure 5.24: Earnings Growth and Median Earnings of Apprentices in Year Two or Longer of an Apprenticeship, by Age, UK, 2014-2015



Source: LPC estimates based on ASHE: 2010 methodology, April 2014-2015, standard weights including those not on adult rates of pay, UK.

5.87 A consequence of the high earnings growth observed for the Apprentice Rate cohort is that the bite of the Apprentice Rate fell 4.9 percentage points to 53.4 per cent in April 2015, as measured against median earnings. As we have argued in previous years, this sounds relatively low compared with the bite of the youth rates. However, it needs to be age-adjusted to be properly comparable. Table 5.7 shows that the bite fell for most age and year groups, but remains high for 16-18 year olds in Year One (72.5 per cent), 19-20 year olds in Year Two or longer (76.0 per cent), and 21-24 year old in Year Two or longer of their apprenticeship (79.1 per cent). The bite for first year apprentices aged 25 and over is estimated to have increased in April 2015 by 3.5 percentage points but remains relatively low at 36.6 per cent. The increase in the bite for those aged 25 and over reflects falling hourly earnings at the median for this group, from £8.08 to £7.45 (a drop of 7.7 per cent), but again this could reflect compositional change in the ASHE 2015 – while apprentices aged 25 and over increased as a proportion of the 2015 sample, their earnings were lower at the median.

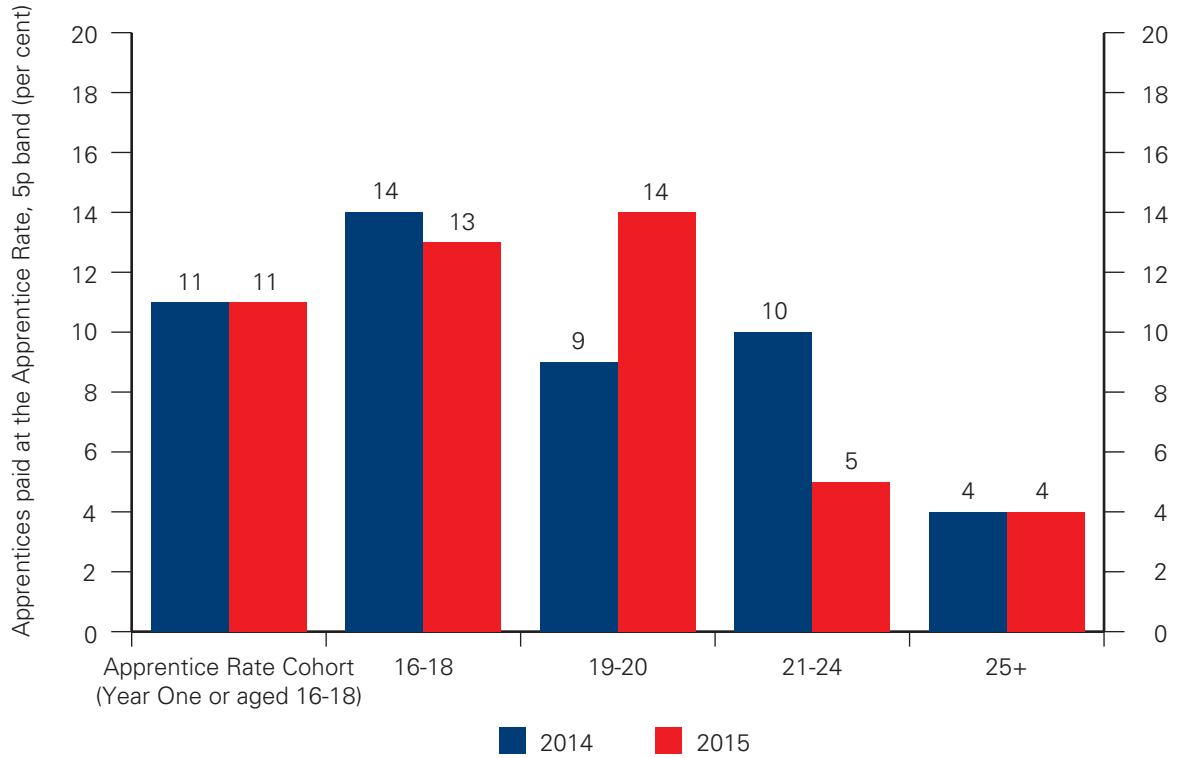
Table 5.7: Apprentice Earnings and Bite of the National Minimum Wage, by Age and Year of Apprenticeship, UK, 2014-2015

Year and Age of Apprentice	Median Earnings (£)		Earnings growth (%)	Bite (%)		Change in the Bite (pp)
	2014	2015	2014-15	2014	2015	2014-15
Year 1						
16-18	3.62	3.76	4.0	74.0	72.5	-1.5
19-20	4.98	5.13	3.0	53.8	53.2	-0.6
21-24	6.31	7.00	10.9	42.5	39.0	-3.5
25+	8.08	7.45	-7.7	33.2	36.6	3.5
Year 2						
16-18	5.03	5.14	2.2	53.3	53.1	-0.2
19-20	6.12	6.75	10.3	82.2	76.0	-6.2
21-24	7.79	8.22	5.6	81.0	79.1	-2.0
25+	11.23	11.71	4.2	56.2	55.5	-0.7

Source: LPC estimates based on ASHE: 2010 methodology, April 2014-2015, standard weights including those not on adult rates of pay, UK.

- 5.88** Turning to coverage and non-compliance, estimates from ASHE suggest that around one in nine apprentices (11 per cent) for whom the Apprentice Rate would apply – those in their first year of apprenticeship or aged 16-18 years – were paid at the Apprentice Rate in April 2015, unchanged on the proportion in 2014. Younger apprentices were more likely to be paid at the Apprentice Rate: around one in eight apprentices aged 16-18 years old and a similar proportion of those aged 19-20 years old were paid at their minimum wage compared with around one in twenty apprentices aged 21 and over.

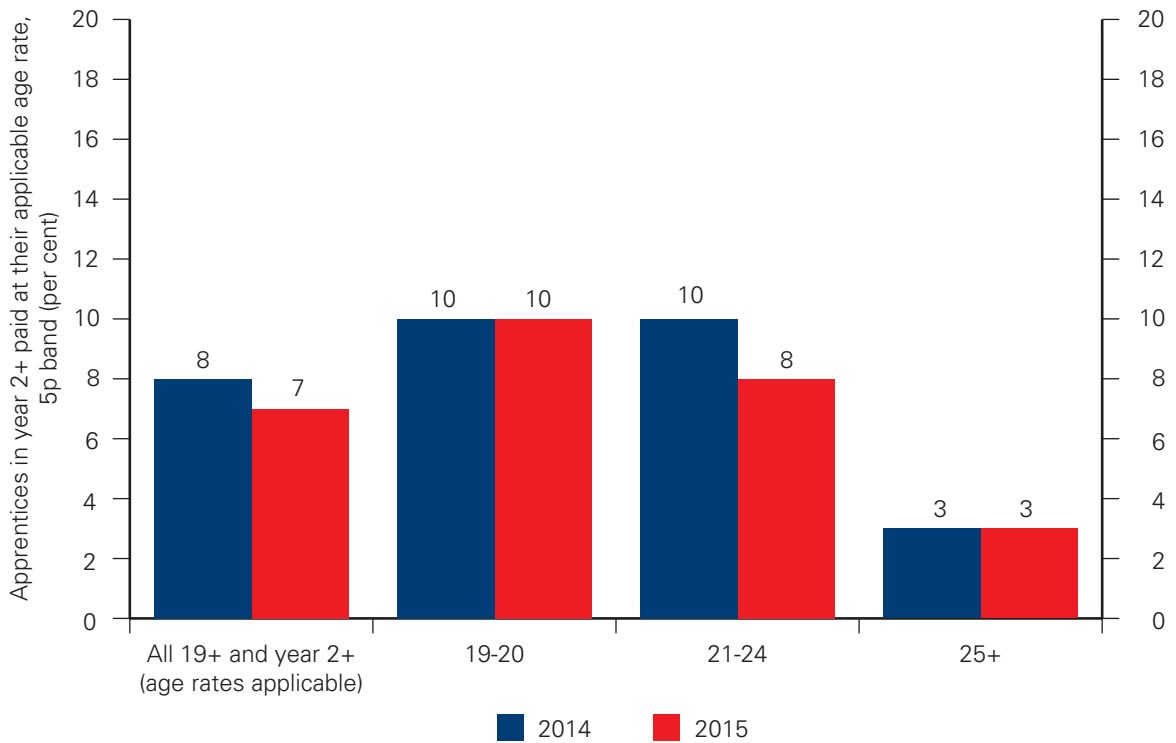
Figure 5.25: Coverage of the Apprentice Rate, UK, 2014-2015



Source: LPC estimates based on ASHE: 2010 methodology, April 2014-15, low pay weights including those not on adult rates of pay, UK.

5.89 Among apprentices in their second year of an apprenticeship and eligible for the age-applicable minimum wage, around 7 per cent were paid at the minimum wage in April 2015, similar to the proportion in 2014. Younger apprentices were more likely to be paid at the minimum wage – around one in ten aged 19-20 year were paid at the YDR, similar to the proportion of 21-24 year olds paid at the adult rate of the NMW, compared with around 3 per cent of their counterparts aged 25 and over.

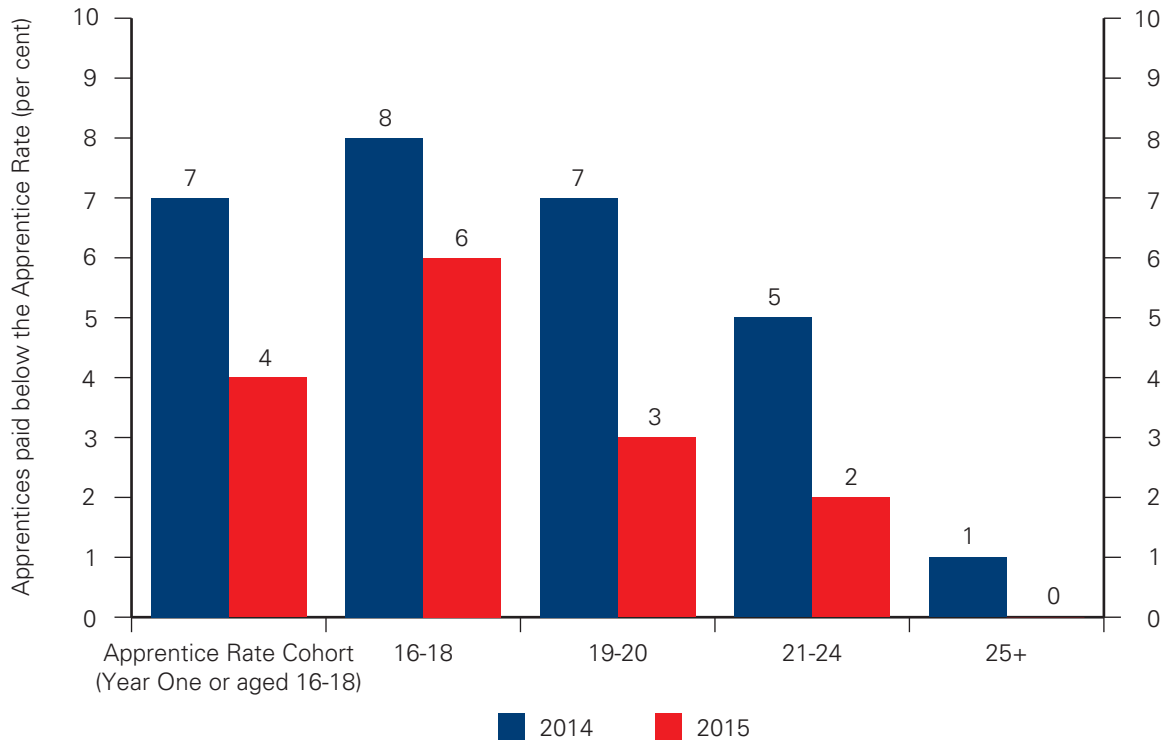
Figure 5.26: Coverage of the Age-related National Minimum Wage Rates for Apprentices in Year Two or Longer of an Apprenticeship, UK, 2014-2015



Source: LPC estimates based on ASHE: 2010 methodology, April 2014-15, Low pay weights including those not on adult rates of pay, UK.

Note: The proportion paid at the minimum wage rate includes a five pence band.

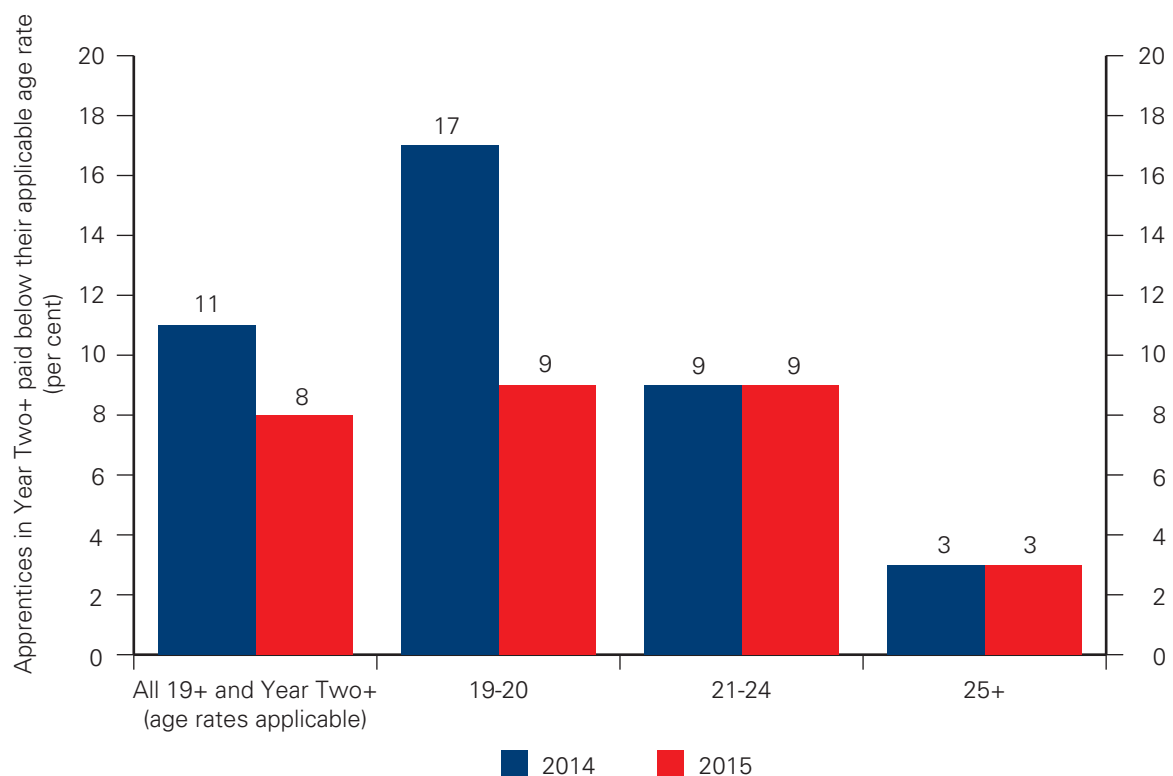
5.90 The LPC remains strongly concerned about non-compliance among apprentices, where in 2014 between 9 per cent (ASHE 2014) and 14 per cent (APS) of apprentices were paid less than their applicable NMW, including high proportions of those aged under 21. We deemed these levels, much greater than estimates of non-compliance in the non-apprentice population, unacceptably high. Figure 5.27 shows that, in the 2015 ASHE, non-compliance with the Apprentice Rate was estimated to be much lower, at around 4 per cent, and very low (around 2 per cent or less) among apprentices aged 21 and over, although slightly higher for apprentices aged 16-18 years (6 per cent). If an accurate reflection of practice, these levels are very welcome. However, in the absence of validation from other sources, these estimates should be treated with considerable caution. As we reported in the 2015 Report, ASHE is likely to provide a lower bound on the scale of the problem, with the APS finding much higher levels. In addition, Drew, Ritchie and Veliziotis (2016) identified some rounding issues with ASHE earnings data for apprentices: taking account of these produces extremely low estimates of non-compliance which cast doubt on their reliability.

Figure 5.27: Non-compliance with the Apprentice Rate, by Age, UK, 2014-2015

Source: LPC estimates based on ASHE: 2010 methodology, April 2014-2015, low pay weights including those not on adult rates of pay, UK.

5.91 A particular concern in recent years has been the causes of apprentice pay non-compliance, including its relationship with the structure of the rate, which is somewhat more complicated than that of the other NMW rates. In the 2015 Report we noted that non-compliance was higher among those aged 19-20 in their second year of apprenticeship, for whom the YDR applies, and this pattern was consistent in both ASHE and the APS although the estimates of scale varied between the two sources, with ASHE finding lower non-compliance. The latest data from ASHE estimates that around one in ten 19-20 year olds in their second year of apprenticeship were paid less than the YDR in April 2015, lower than the proportion estimated by the 2014 ASHE (17 per cent). The apparent fall in non-compliance for 19-20 year olds is welcome but again needs to be treated with some caution in the absence of validation from alternative sources. Around one in ten 21-24 year olds were paid below the applicable adult rate in April 2015, unchanged on April 2014, and the proportion of those aged 25 and over was unchanged, and very low, at less than 5 per cent.

Figure 5.28: Non-compliance with the Age-related National Minimum Wage Rates, by Age, UK, 2014-2015



Source: LPC estimates based on ASHE: 2010 methodology, April 2014-2015, low pay weights including those not on adult rates of pay, UK.

Apprenticeship Research

- 5.92** Our understanding of apprentice pay this year has been informed by new commissioned research. Drew, Ritchie, and Veliziotis (2016) used the Apprenticeship Pay Survey (APS), Annual Survey of Hours and Earnings (ASHE) and primary qualitative research to investigate apprentice pay, the extent of non-compliance, and to explore possible reasons for non-compliance.
- 5.93** In line with their previous research on non-compliance (Drew, Richie and Veliziotis, 2015) they found a relationship between non-compliance and age and year of apprenticeship. Non-compliance was higher among apprentices aged 19 and over and in their second year, i.e. when they became eligible for the YDR or adult rate of the NMW. For example, estimated non-compliance was 20 percentage points higher among those aged 21 and over in their second or third year of apprenticeship, compared with apprentices aged 16-18 years and in their first year.
- 5.94** The qualitative research involved focus groups with apprentices in hairdressing and childcare – two key sectors with high levels of non-compliance – and interviews with training providers. The research found that apprentices had poor knowledge of their pay and hours, relied on their employer to pay them correctly, and lacked the power to investigate their pay and challenge their employer. Apprentices often found it difficult to provide information on their pay and hours, suggesting that some of the non-compliance found in the Apprenticeship Pay Survey may be due to poor quality data. However, the authors concluded that the APS was a

more reliable source of data on apprentice earnings and non-compliance than ASHE – with the APS providing an upper bound estimate of non-compliance and ASHE providing a lower bound.

- 5.95** Greater awareness, particularly knowledge of the existence of the Apprentice Rate, was associated with lower levels of non-compliance but the research identified poor knowledge of the Apprentice Rate among apprentices. This research is ongoing and we expect to be able to add insights from interviews with employers of apprentices in our Autumn 2016 Report. These may shed further light on the reasons for the high level of non-compliance observed among apprentices, including the extent to which there is a lack of understanding of the pay floor for apprentices and/or unwillingness to pay apprentices accordingly.

Apprenticeship Policy

- 5.96** The broader context to this half of the chapter is significant change in apprenticeship policy, particularly in England. As well as expanding numbers, and protecting the name in law, the Government is setting up the Institute for Apprenticeships, an employer-led body, to help oversee the system.
- 5.97** This comes against the backdrop of the introduction of the NLW and the Apprenticeship Levy. On the former, the main impact is that the NLW will not apply in Year One of an apprenticeship (as with the other NMW rates). Those aged 25 and over in Year Two will become eligible for the NLW. This reflects the broader logic of the Apprentice Rate in ensuring that there is a wage discount for workers of all ages in order to help meet training costs. However, it also presents a possibility of bogus use of apprenticeships for older workers which will require close monitoring. A countervailing pressure is the change in the level of pay between the Apprentice Rate and the NLW for minimum wage apprentices aged 25 and over after one year: a sharp increase in wages, from £3.30 to £7.20. Employers may manage this transition well. Equally, there are possible non-compliance risks. The long-term effect could be to increase the share of longer apprenticeships going to younger workers, while increasing the number but reducing the average length of apprenticeships for older workers. These issues are discussed further in Chapter 8, while the Apprenticeship Levy is covered in Chapter 7.

Conclusion

- 5.98** The general picture for young people this year has been positive and builds on the picture reported last year. This includes strong pay growth for 18-20 year olds and improving pay growth for 16-17 year olds, coupled with stronger labour market performance, suggesting that young workers may be better placed to sustain larger pay increases than in the recent past. The bite has fallen for 18-20 year olds and is stable for 16-17 year olds. However, this positive picture must be balanced against the generally greater vulnerability of young workers compared with their older counterparts: absolute levels of average pay remain much lower than for older age groups, and bites and coverage are still very high.

National Minimum Wage

- 5.99** An additional consideration this year is the relationship between the youth rates and the NLW. Maintaining or increasing the value of the youth rates relative to the NLW would lead to very high bites and coverage for young workers, possibly increasing the risk of negative employment effects were the absolute cost too high. A lower relative value for the youth rates compared with the adult rate and NLW minimises the risk of job losses or lost hours due to younger workers being priced out – but potentially increases the incentives to hire and substitute younger workers for older ones, with young workers gaining a larger employment share (at the price of lower pay).
- 5.100** On apprentices, there is limited new evidence this year. Apprenticeship starts increased over the year to August 2015 but the fears of supply being affected by the uprating to £3.30 are not yet testable because data covering the period since the uprating is provisional and covers only one quarter – more data is needed to establish whether there has been any impact on numbers. We also know little yet about changes in quality and non-compliance which may arise from the increase in the Apprentice Rate. ASHE found very strong pay growth for the cohort covered by the Apprentice Rate overall, though not at most ages within the cohort. However, the earnings growth relates to the period before the October 2015 increase in the Apprentice Rate to £3.30 so provides little indication of how employers are responding to the increase.
- 5.101** As with young workers, recent indicators – both apprenticeship starts and earnings as measured by ASHE – show a positive picture, but significant uncertainty remains and there are notable future risks, including around the NLW and the Apprenticeship Levy, which require monitoring.

Chapter 6

The Economic Context

Introduction

- 6.1** It is important for our decisions on both the National Living Wage (NLW) and the other rates of the National Minimum Wage (NMW) to consider the current state of the economy and its prospects. Our remit specifies that increases in the NLW are subject to sustained economic growth. Further, in discussions of the future path of the NMW in our 2014 and 2015 Reports, we stated that faster increases in the NMW were dependent on four factors: sustained economic recovery; continued employment growth, particularly within the low-paying sectors and among small firms; a return to real wage growth in the economy; and a pick-up in productivity. We consider below the outlook in these areas.
- 6.2** A methodological difference for this report from previous ones is that wider economic factors bear somewhat less directly on the rates decision for workers aged under 25 and apprentices than when we have been recommending rates for all workers. This is partly because of limitations in the data – there are for example, no wage forecasts for younger workers, and trends for average workers are an unreliable guide to what is happening to those aged under 25 or apprentices. It is also because younger minimum wage workers and apprentices are a small proportion of the wage bill and the affordability of their pay floor depends partly on their relative cost (compared to older workers), as well as their absolute cost.
- 6.3** Economic factors however also have an indirect bearing on rates for workers aged under 25 and apprentices. Trends in growth, employment growth and productivity growth are relevant to affordability of the National Living Wage, which could in turn affect younger workers – for example, if employers decide that, because most minimum wage workers will be on the NLW, lower-skilled workers as a whole are too expensive; or, conversely, if strong economic growth means employers feel these costs are affordable, and higher pay supports recovering productivity. Chapter 1 showed that the 2014 and 2015 increases in the NMW raised its relative and real value substantially. It is too early to evaluate the impact of the latter increase, but the former appears to have been accommodated so far without significant negative economic or employment effects. Chapter 2 showed that the NLW's introductory rate represents a further significant increase. Many employers thought they could manage its initial effects, albeit with reported pressure in sectors like small retail, textiles and agriculture and strong concerns in the social care sector. There was somewhat broader concern and uncertainty about the path to 2020, although also a desire from employee representatives to ensure the level of the NLW is as high as possible, given changes to in-work support as Universal Credit is fully introduced towards the end of the Parliament. In our consultation,

National Minimum Wage

stakeholders took different views on the degree to which a judgement on NLW costs should in turn have a bearing on the level of the other rates.

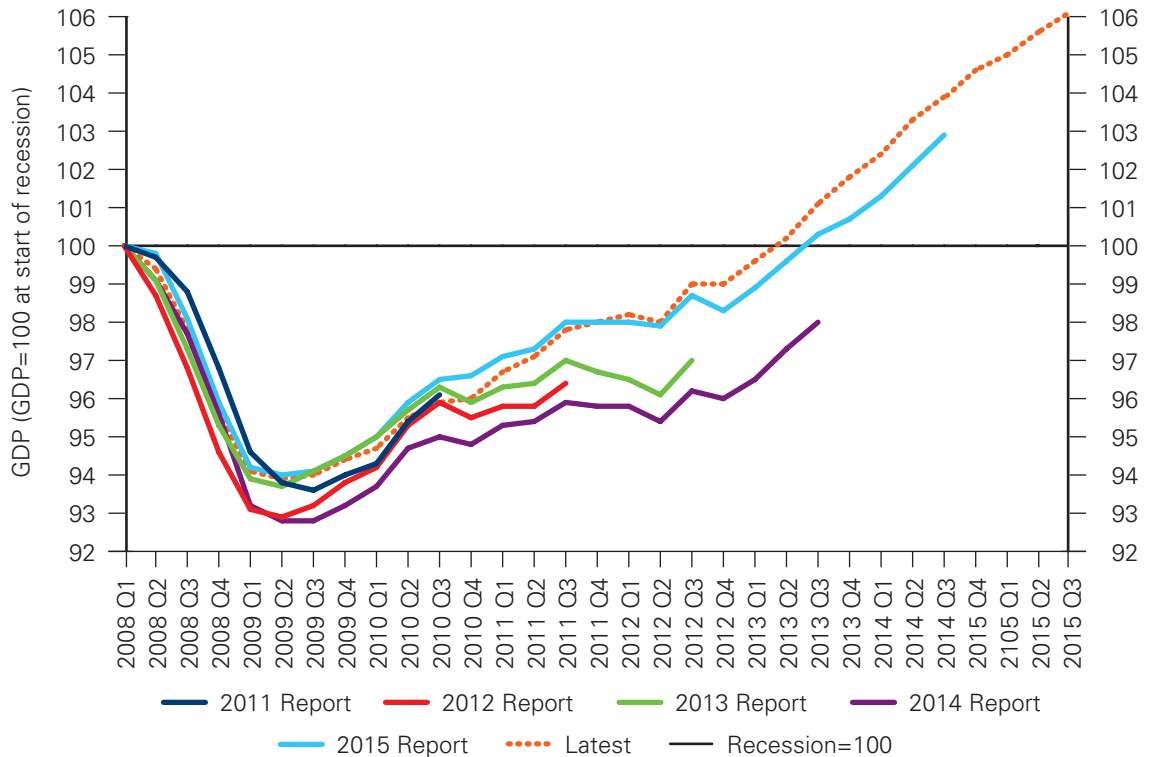
- 6.4** The recommendations that we make for this report will, if accepted by the Government, last for a period of either six or twelve months from October 2016 (dependent on alignment of the NMW and NLW cycles). They come against the backdrop of our previous recommendations. In our 2015 Report, we had noted that the economic recovery, albeit weaker than other recent recoveries, had been sustained with growth strengthening in 2014 (around 2.6 per cent), and real gross domestic product (GDP) around 3 per cent higher than its pre-recession peak. Employment growth and the increase in the number of jobs had been very strong but real wages had continued to fall in the first half of 2014 with productivity growth muted. However, inflation had fallen sharply in the second half of 2014 leading to some real wage growth at the end of 2014. Productivity, whether measured by output per job, per worker or per hour, remained below its pre-recession level.
- 6.5** The overall picture for this report, and for our recommendations, is one of broad continuity in these trends, with stable economic and employment growth alongside evidence of a pick-up in pay and productivity in the first half of 2015, although softening in the second half of 2015 and some downside risks.

Economic Growth Forecasts

GDP

- 6.6** Since our last report, the Office for National Statistics (ONS) has revised GDP data, suggesting that the recovery had been stronger than previously thought.¹⁵ Figure 6.1 shows the extent to which the data, covering the period of the recession and the subsequent recovery, have been revised in each of our reports since 2011. The latest vintage of data now suggests that the recession led to a loss of 6.1 per cent in GDP between the first quarter of 2008 and the second quarter of 2009. That is similar to the 6.0 per cent loss that we reported in our 2015 Report but lower than we had thought in our 2012 or 2014 Reports.

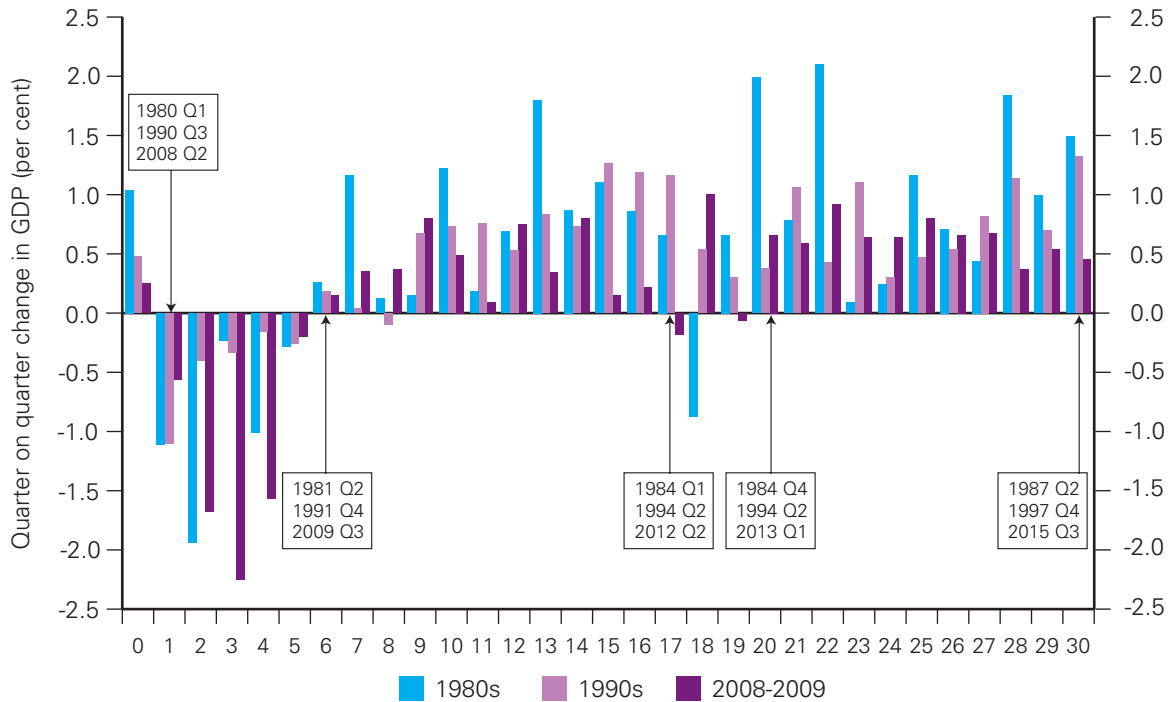
¹⁵ ONS regularly revises its output data as new information is revealed. Further, new methodology and substantive revisions are incorporated into the data each September, when the Blue Book is released (ONS, 2015b).

Figure 6.1: GDP Quarterly Growth, UK, 2008-2015

Source: LPC estimates based on ONS data: quarterly change in GDP (ABMI), quarterly, seasonally adjusted, UK, Q1 2008-Q3 2015.
 Note: The data are those that were available in January of each year.

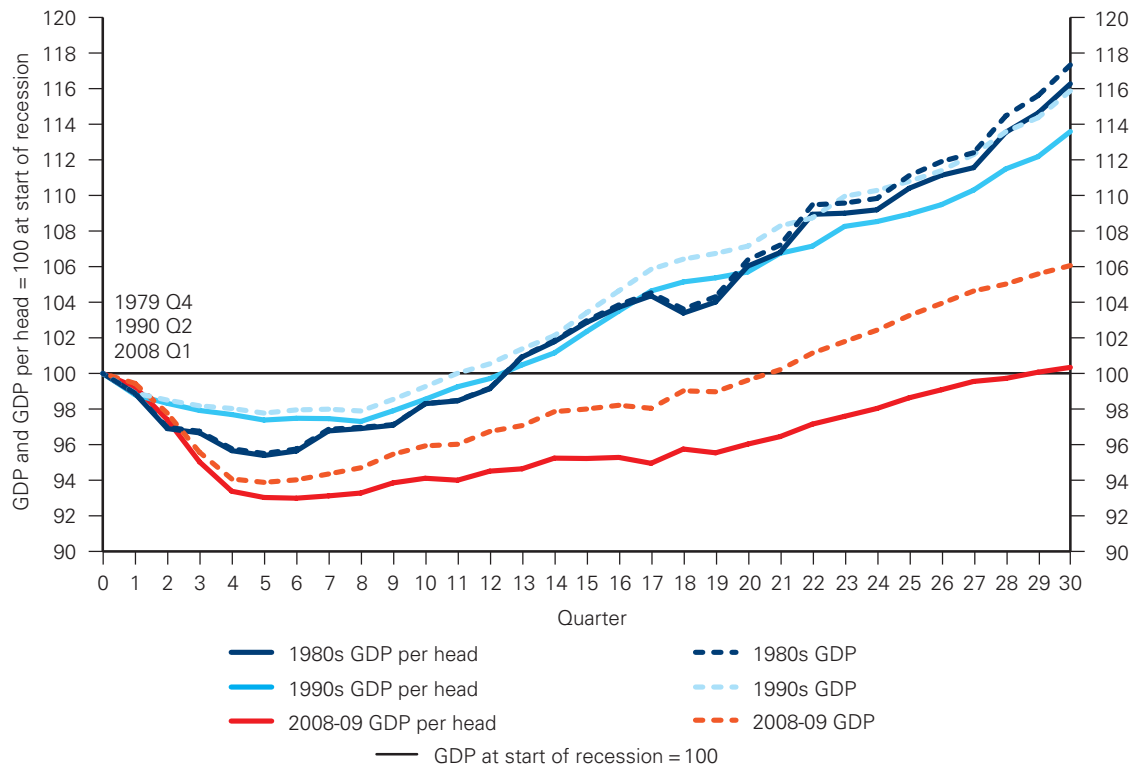
- 6.7** However, the data also highlight a better picture on recovery. Whereas, in our 2015 Report, we thought that GDP was 2.9 per cent higher in the third quarter of 2014 than in the first quarter of 2008, we now believe it was 3.9 per cent higher. Indeed, the latest data suggest that the economy grew by 2.2 per cent in 2013 and 2.9 per cent in 2014 (revised up from 1.7 per cent and 2.6 per cent respectively reported in our 2015 Report) – the latter was the fastest annual growth rate since 2003.
- 6.8** As shown in Figure 6.2, since the first quarter of 2013, the UK has now experienced 11 consecutive quarters of growth. GDP was 2.1 per cent higher in the third quarter of 2015 than in the third quarter of 2014, and is likely to have grown by 2.2 per cent in 2015 when the data are published in early 2016. Although that is lower than the pre-recession trend, it is much higher than growth in many other industrialised countries. Of the G7, the major industrialised countries, only the United States is likely to have performed more strongly in 2015. However, growth has slowed in 2015 to an average of 0.4 per cent a quarter from an average of around 0.7 per cent in both 2013 and 2014.

Figure 6.2: GDP Quarterly Growth, UK, 1979-2015



Source: LPC estimates based on ONS data: quarterly change in GDP (ABMI), quarterly, seasonally adjusted, UK, Q3 1979-Q3 2015.

6.9 As we have set out in our previous reports, the recovery this time has not been as quick or as strong as previous post-war recoveries, particularly those after the 1980s and 1990s recessions. Figure 6.3 shows that the economy has grown by around 6 per cent in the thirty quarters since 2008, the start of the most recent recession. That compares with growth of 17 per cent in the aftermath of the 1980s recession and 16 per cent following the 1990s recession. Further, population increases have been much greater in the most recent period: using GDP per head of population, the recovery from the latest recession has been much weaker. Indeed, it was only in the second quarter of 2015 that GDP per head had recovered to reach its pre-recession levels, more than seven years (29 quarters) after the start of the recession – compared with less than four years in the 1980s and three years in the 1990s.

Figure 6.3: Recoveries from Recessions Compared, UK, 1979-2015

Source: LPC estimates based on ONS data: quarterly change in GDP (ABMI), quarterly, seasonally adjusted, UK, Q3 1979-Q3 2015.

- 6.10** It should be noted that another measure of economic well-being that takes account of capital consumption and net income flows from abroad, real net national disposable income (NNDI) per head, remained slightly below its pre-recession peak in the third quarter of 2015, but it had increased by 1.3 per cent in that third quarter.
- 6.11** Furthermore, in the year to the third quarter of 2015, the economy grew at its slowest rate in cash terms since the end of the recession – 2.1 per cent. Since 1955, when records began, the only other times it has been weaker were the first quarter of 1959 and during the recent recession (from the fourth quarter of 2008 to the third quarter of 2009).
- 6.12** Overall the picture is one of fairly stable performance, with some recent weakening: growth was stronger than forecast in 2014 but slightly below the forecasts for 2015 that were available when we met to agree our recommendations in January 2015.
- 6.13** Despite slowing throughout 2015, the economy is forecast to grow at a similar pace in 2016 and beyond. The Office for Budget Responsibility (2015c) forecasts growth of around 2.4 per cent in 2016 and 2.5 per cent in 2017. The median of the HM Treasury Panel of Independent Forecasts (2015d and 2016) expects GDP growth of around 2.2 per cent in 2016 and 2.3 per cent in 2017. These are very similar to the forecasts available when we considered our recommendations in our 2015 Report. They reflect a boost to growth from low inflation (especially low oil prices) and less severe austerity – offset, however, by significant global headwinds.

National Minimum Wage

6.14 What though about the composition of growth? Wage increases are likely to be more sustainable if recovery is balanced. Growth is dependent on consumer spending, government spending, investment and trade. The strength of each will also help determine the ability of firms and the economy to cope with increases in the National Minimum Wage and the introduction of the National Living Wage. Over the last two years, growth has been driven by household consumption and investment, of which business investment has been the major contributor. Government spending has continued to make a small contribution to overall growth. In contrast, net trade has been somewhat volatile and has generally tended to act as a drag on growth since the recession.

Consumer Spending

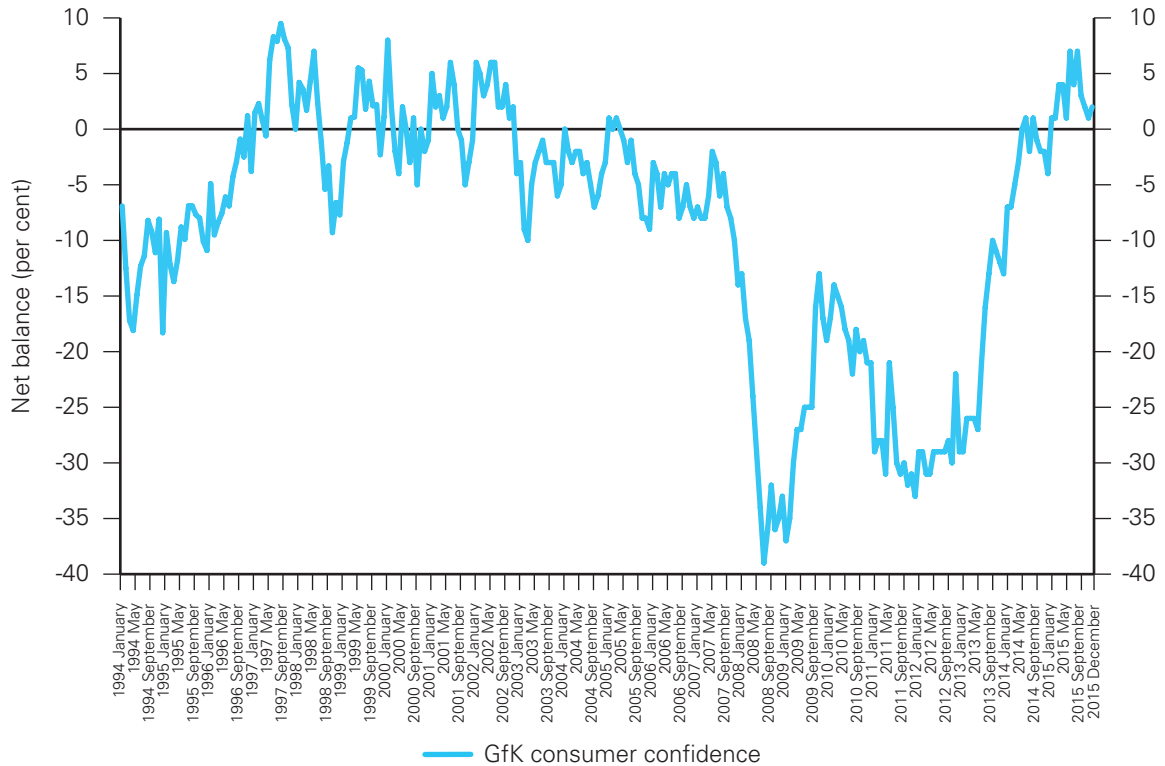
6.15 Consumer spending – particularly important to the two largest low-paying sectors, retail and hospitality – has been supported recently by an increase in real disposable household incomes (as wage growth has finally outstripped inflation and employment increased). However, the growth in consumer spending over the last three years (averaging 0.7 per cent a quarter) has been greater than the increase in real disposable income (averaging around 0.3 per cent). Indeed, real disposable household income barely grew between 2010 and 2014. The difference has been made up of households running down net savings as credit has also become easier to access. Consequently, the household savings ratio has fallen from a peak of 11.9 per cent in the third quarter of 2010 to just 4.4 per cent in the third quarter of 2015. Though the outlook is uncertain, continued low inflation accompanied by real wage increases may help maintain the momentum for consumer spending – further aided by interest rates remaining low for most of 2016 (Carney, 2016). The HM Treasury Panel of Independent Forecasts and the OBR both forecast that consumer spending will grow by around 2.6 per cent in 2016.

Figure 6.4: Consumer Spending, Real Household Disposable Income and the Savings Ratio, UK, 1998-2015



Source: LPC estimates based on ONS data: household spending (ABJR), real disposable income (NRJR), household saving ratio (NRJS), quarterly, seasonally adjusted, UK, Q1 1998-Q3 2015.

- 6.16** Consumer spending may also be supported by some relaxation of austerity measures following the Autumn Statement (HM Treasury, 2015e), although government spending is unlikely to make a substantive contribution to overall growth in 2016 or 2017. In addition to the reversal of tax credit measures, the Chancellor also announced additional spending compared with his Summer Budget (HM Treasury 2015c), which was estimated by the OBR (2015c) to add 0.2 per cent to GDP in 2016-17. However, household disposable income is still expected to fall by 1.5 per cent as a result of tax and benefit changes that will take place and lower in-work support under Universal Credit will further reduce household disposable income towards 2020.
- 6.17** The increase in real wage growth and delays in raising interest rates have helped boost consumer confidence. Figure 6.5 shows that it was at its highest since 2002 in the middle of 2015 and remains positive.

Figure 6.5: Consumer Confidence, UK, 1994-2015

Source: LPC estimates based on GfK consumer confidence index, monthly, 1994-2015.

Prospects for Retail and Hospitality

- 6.18** Of particular importance for our considerations are the prospects for retail and hospitality, which depend in turn on consumer spending. These two low-paying sectors account for a large proportion of workers aged under 25. The OBR forecast consumer spending growth of 2.6 per cent in 2016 and 2017.
- 6.19** PricewaterhouseCoopers (PwC, 2015b) estimated that consumer spending had grown by around 2.5 per cent per annum in real terms over the last three years. It expected this to slow a touch to 2.3 per cent between 2017 and 2020 but remain steady, with weaker spending in alcohol and tobacco, clothing, transport and food, but increases in restaurants and hotels (2.8 per cent).
- 6.20** Measures of consumer confidence were solid – though the contrast with weakening business confidence (see below) was striking. Using its Consumer Tracker, Deloitte (2016) found that consumer confidence rose by 1 percentage point over the year to the fourth quarter of 2015, with consumers reporting feeling more confident about job security, job opportunities, career progression, and household disposable income. The GfK Consumer Confidence Index, as shown in Figure 6.5, tells a similar story – with 2015 the first year that the index has been positive throughout since the series began in 1974. However, PwC’s consumer sentiment survey found regional variation: consumers in the South East were on balance positive, in the North neutral, but negative in Wales, Scotland and the South West.

- 6.21** Evidence on retail performance suggested a mixed picture. EY, formerly Ernst & Young, (2016b) highlighted 21 profit warnings in 2015 from general retailers, the highest since 2011. Although it forecast 2.8 per cent growth in consumer spending in 2016, it cited increasing pressures on some retailers due to continuing shop price falls and the increase in discounting. It also pointed to the two opposing effects for retailers from the National Living Wage – the increase in wages will support increases in consumer spending, but will also put cost pressures on businesses.
- 6.22** However, the Institute for Grocery Distribution (2015) estimates that the value of the UK food and grocery market will increase by 13 per cent to over £200 billion in 2020. This growth will be driven by online, convenience, and discounters, with declines in large format stores. In its Voice of Local Shops Survey, the Association of Convenience Stores (ACS, 2015) showed that plans for future investment had improved in recent months, although there was a growing gap between the optimism in sales growth and expected staff hours over the next year. The percentage of businesses that had increased the number of staff hours in the last year was at its lowest level since February 2012. However, ACS also cited forecasts of sector growth of 3.2 per cent a year, albeit driven by large chains, not independent stores.
- 6.23** The outlook on hospitality was moderately encouraging. Oxford Economics (2015), in a report for the British Hospitality Association (BHA) forecast an additional 388,000 to 524,100 jobs in the sector over the next five years, so the hospitality industry will be providing 3.31-3.37 million direct jobs by 2020. Within the hotel sector, PwC (2015a) forecast continuing growth for 2016 but at a slower rate than for 2015, with stronger growth outside London.
- 6.24** All in all, the outlook for consumer spending looks promising, supporting growth in those low-paying sectors dependent on consumers. However, the overall prospects for hospitality look better than those for retail.

Investment

- 6.25** The outlook for investment also suggests broad continuity. Investment depends on: demand; future demand; and the cost and availability of finance. Investment, as measured by gross fixed capital formation, has grown by an average of 1.3 per cent a quarter since the beginning of 2013 and, along with consumer spending, has been the main driver of growth in the UK economy. Within that investment growth, business investment has made the major contribution, while government investment and private dwellings investment have contributed little – particularly in the first three quarters of 2015.
- 6.26** A number of factors could support continued business investment. First, increases in real wages driving increases in consumer spending may give confidence to businesses that future growth will be solid, if not spectacular. Second, cheap finance continues to be available thanks to low interest rates, and credit conditions that have eased. For the first time since 2009, net lending by UK banks on an annual basis had become positive in the second half of 2015. However, there were still some difficulties for small firms and demand for credit remained below historic averages. The MPC (Bank of England, 2016a) suggested that firms that had experienced restricted credit availability during the financial crisis might have become more averse to borrowing from some financial institutions.

National Minimum Wage

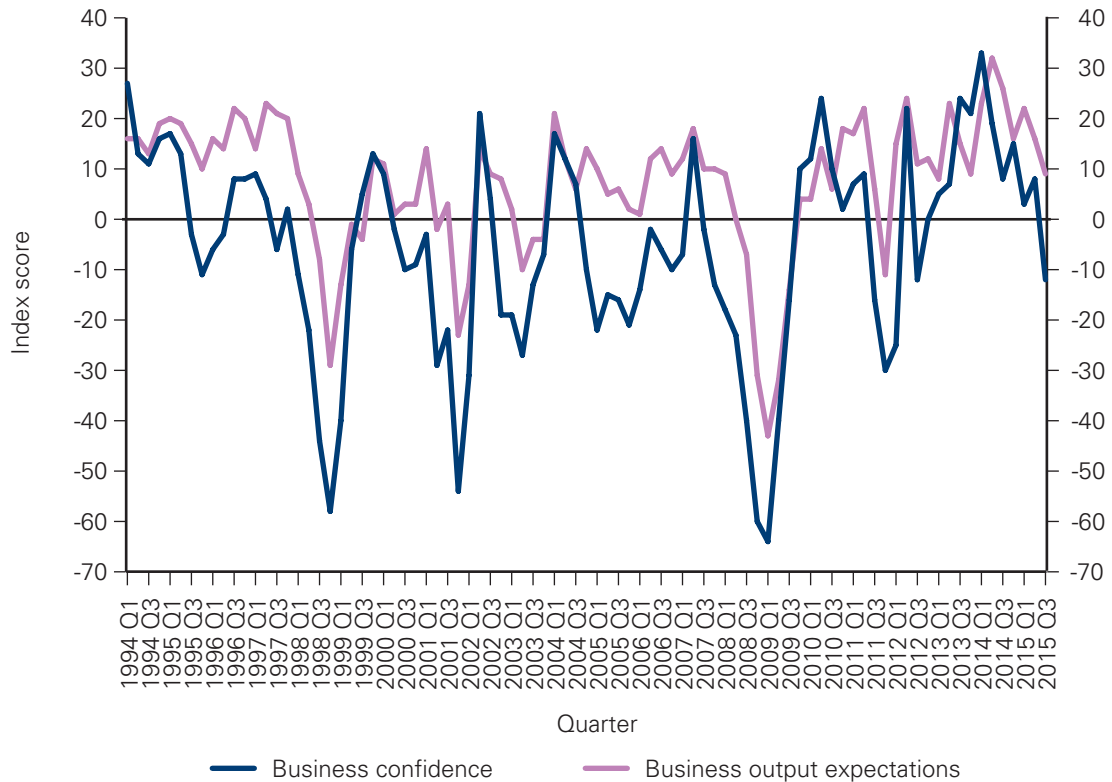
- 6.27** A third factor is positive indicators of company profitability. There are several measures of profitability available at the aggregate level. Gross trading profits for non-oil private non-financial corporations increased by an average of around 2.4 per cent a quarter between the second quarter of 2012 and the third quarter of 2015. Gross operating surplus for private non-financial corporations grew by an average of 1.8 per cent a quarter over the same period. The ratio of profits to GDP for private non-financial corporations increased to 18.9 per cent in the third quarter of 2015. Over the last ten years, that ratio has only been higher on three occasions. Gross rates of return on capital had also risen above 12 per cent, higher than at any point since the end of 1999. UK corporations were also holding financial surpluses. In the third quarter of 2015, those holdings accounted for 2.9 per cent of GDP – larger than at any point for over three years.
- 6.28** However, there will be other pressures on business investment, and its implications for employment are in any event ambiguous. As Chapter 2 set out, it is likely that the National Living Wage will increase wage bills from April.
- 6.29** Other labour costs, such as the roll-out of pension auto-enrolment to the smallest firms and the introduction of the Apprenticeship Levy applying to large firms, will also need to be funded (in combination with lower energy prices, higher labour costs may make substitution of plant and machinery for workers more attractive, where this is a viable option). There will also be a drag on investment in certain sectors adversely affected by low oil and commodity prices – for example, oil and gas; and steel. In addition, uncertainty over the timing and result of the EU Referendum may lead firms to delay investment until the consequences of any result are clear. This will be particularly important for foreign direct investment (FDI).
- 6.30** Despite that uncertainty, the OBR (2015c) forecasts fixed investment to increase by 5.4 per cent in 2016 and 5.1 per cent in 2017 and the HM Treasury Panel of Independent Forecasts (2016) expects investment to fall back from 7.3 per cent in 2013 and around 4.5 per cent in 2015 but still grow by 4.2 per cent in 2016.

Trade

- 6.31** An important factor influencing sentiment is the outlook for trade. The IMF (2016), the World Bank (2016) and the OECD (2015c) have all recently revised downwards their forecasts for world trade and global growth. This reflects increasing potential for international conflict, the Federal Reserve raising interest rates in the US, the increase in volatility in financial markets across the globe in early 2016, and official data confirming that the Chinese economy is slowing. Despite those downward revisions, with oil and commodity prices continuing to fall, these international organisations are still forecasting an improvement for global growth in 2016 and 2017. In addition, there is likely to be an improvement in growth in the UK's traditional export markets – the EU and the US – and this may help compensate exporters for any slowdown in emerging markets. However, the risks remain significant, and the appreciation of sterling between the middle of 2013 and the end of 2015 will make this task more difficult, although the effective exchange rate of the pound has fallen back by around 3 per cent since the middle of November. Most forecasters are again expecting imports to increase faster than exports in 2016 and that this will act as a drag on growth of around 0.2-0.3 per cent.

6.32 As shown in Figure 6.6, business confidence generally and output expectations in particular had improved since the end of 2011, reaching a record high in the two CBI series in mid-2014. However, since then the slowdown in the economy and the increased uncertainty about global economic conditions appear to have affected business confidence with notable falls as 2015 has progressed.

Figure 6.6: Business Confidence, UK, 1994-2015



Source: LPC estimates based on CBI business confidence index and CBI business output expectations score, monthly, UK, 1994-2015.

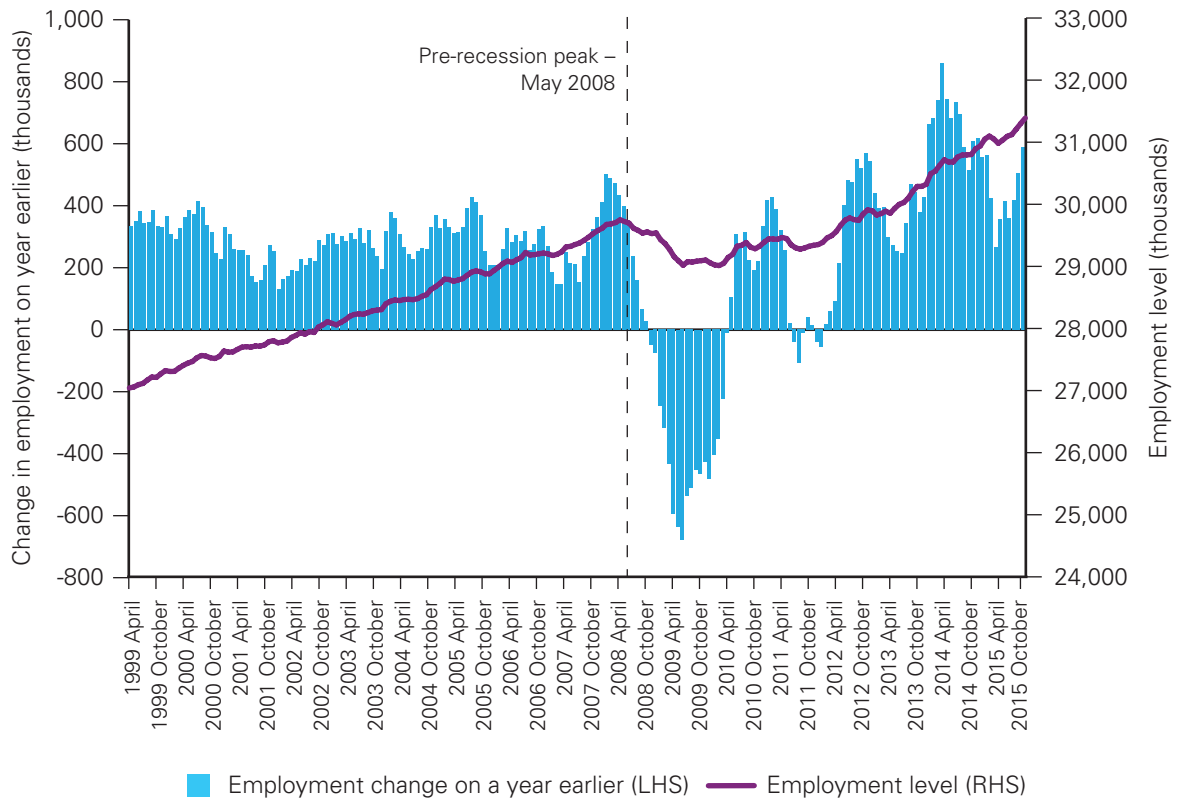
Summary of Output Forecasts

6.33 Overall, on economic growth, the picture is one of continued recovery, albeit with some risks. Since our 2015 Report, GDP growth has been revised up (to 2.2 per cent in 2013 and 2.9 per cent in 2014), but GDP growth for 2015, forecast at around 2.4-2.6 per cent, has fallen somewhat short – at 2.2 per cent. Although broadly in line with our expectations, there were some signs of softening in the second half of 2015, and overall performance reflected continued dependence on services and business investment rather than exports. Looking ahead, forecast GDP growth for 2016 and 2017 suggests it will continue at a similar pace – steady but below the pre-recession trend with no momentum for growth to move above trend to reclaim some of the lost output from the recession. Consumer spending – the key motor in many low-paying sectors – looks set to be sustained by low inflation, which together with real wage growth has boosted consumer confidence. Several indicators suggest strengthening profitability in larger firms. This, alongside easing of credit and low oil prices in combination with increasing labour costs may amplify business investment, though there are also risks, mainly from trade. Looking at the sectors most exposed to minimum wage decisions, retail is set to grow but with big internal variation – food retailers remain under pressure. The outlook for hospitality is more encouraging.

Labour Market

Employment and Employee Jobs

- 6.34** As we have noted in successive reports, the labour market in the UK has been remarkably resilient throughout the recession and during the recovery. Its behaviour during and after the 2008-09 recession was in marked contrast to the recessions of the 1980s and 1990s, when the fall in employment (and hours) was around twice that of the fall in output. Although GDP fell by 6.1 per cent during the recession, hours fell by 4.2 per cent and employment fell by just 2.5 per cent. The recovery, particularly since 2012, has also seen a strong increase in the number of jobs and hours worked.
- 6.35** Below we show that solid employment growth has continued, although little can be directly inferred from this in relation to the NLW. It is too soon for the policy, announced in July 2015, to have much of an effect on the data – we only have one quarter of employee jobs data since then and – in any event – employment decisions would take time to be affected.
- 6.36** In October 2015, as shown in Figure 6.7, there were 31.3 million in employment – the highest on record (although with a growing population, you would expect a record high each month). It was more than 1.5 million higher than the pre-recession peak of 29.75 million in May 2008. That record employment level was associated with an employment rate for those aged 16 and over of 60.1 per cent, which was historically high but still below the pre-recession peak of 60.4 per cent. However, the employment rate for those aged 16-64 had recovered from its pre-recession peak of 73.0 per cent and was at a record high (73.7 per cent) – although one would expect this to increase over time as the impact of raising the State Pension Age for women to 65 continues to be rolled out.
- 6.37** Figure 6.7 also shows the remarkable strength of the labour market since 2012. Between 1999 and 2008, the annual growth in jobs averaged around 300,000 (or 1.1 per cent). Jobs were then lost during the recession but growth rebounded back to its previous levels from mid-2010 to mid-2011 (with growth of 300,000 or 1.0 per cent). There was then little or no job growth for a year before job numbers picked up sharply from the middle of 2012. Between July 2012 and October 2015, job growth averaged around 500,000 a year (or 1.6 per cent). It was unprecedentedly robust in 2014 with an increase of 600,000 jobs (or 2.2 per cent).
- 6.38** In 2015, employment growth has dipped relative to the highs of recent years – averaging 450,000 (or 1.5 per cent). But this remains a solid level of growth in historical terms – higher, for example, than before the recession.

Figure 6.7: Employment, UK, 1999-2015

Source: LPC estimates based on ONS data: total employment (MGRZ), monthly, seasonally adjusted, UK, 1999-2015.

- 6.39** The recent growth in employment has been encouraging in terms of increasing numbers of permanent and full-time employees – as opposed to self-employed, temporary and part-time recruits. It has also been strong for those aged 25 and over – this group is of course set to be directly affected by the NLW.
- 6.40** Table 6.1 shows that there were 588,000 more people in employment in November 2015 than in November 2014. The number of employees increased by around 2.0 per cent to 26.6 million. There was also a similar percentage increase in the number of self-employed workers, although most of that growth was for part-time self-employment.

Table 6.1: Employment, by Status, Age, Hours and Permanency, UK, 2008-2015

Thousands	Latest Data (November 2015)	Change on November 2014	Change on May 2008	Change during recession (May 2008-July 2009)
Employment	31,389	588	1640	-731
Employees	26,587	521	930	-695
Self-employed	4,618	98	762	2
Other	185	-29	-50	-37
Employment by Age				
16-17	363	41	-174	-128
18-24	3,592	145	-46	-290
25-34	7,158	127	667	-186
35-49	10,696	-63	-462	-201
50-64	8,369	260	1134	28
65 and over	1,210	77	521	46
Hours				
Full-time employees	19,655	416	439	-754
Part-time employees	6,931	104	490	59
Contract Type				
Permanent employees	24,946	559	709	-704
Temporary employees	1,641	-38	221	9

Source: LPC estimates based on ONS data: employment (MGRZ); employees (MGRN); self-employment (MGRQ); unpaid workers (MGRT); government supported trainees (MGRW); full-time employees (YCBK); part-time employees (YCBN); temporary employees (YCBZ); and employment by age groups: 16-17 (YBTO); 18-24 (YBTR); 25-34(YBTU); 34-49 (YBTX); 50-64 (LF26); and 65 and over (LFK4), UK, 2008-2015.

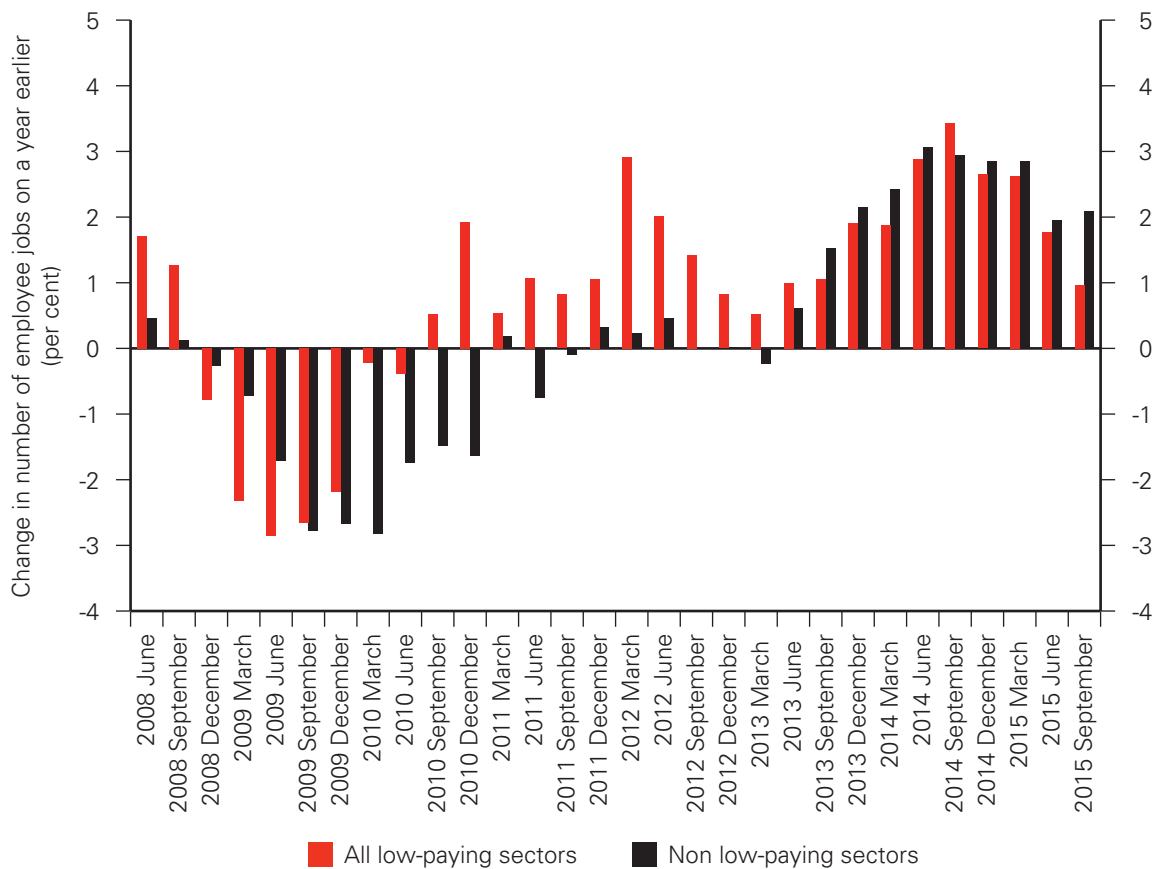
Note: Other includes unpaid family workers and government supported trainees.

- 6.41** Employment among those aged 25 and over has increased by over 1.8 million since the beginning of the recession and nearly 400,000 more people aged 25 and over were in work in November 2015 than in November 2014 (a fall in the number of people in jobs aged 35-49 reflects the change in the population in that age group – the employment rate for these workers has increased). The upturn in employment of young people should also be noted.
- 6.42** Over the year to November 2015, employment of both permanent and full-time employees increased by around 2.2 per cent. The number of permanent employees increased by 559,000 and full-time employees by 416,000 compared with a fall of 38,000 in the number of temporary jobs. The increase in the number of part-time employees was a little weaker at 1.5 per cent. As well as looking at employment (number of workers), we can also look at the number of jobs.
- 6.43** The growth in the number of jobs follows a similar pattern to that of employment. Prior to the recession, and in line with the growth in the numbers employed, job growth in the UK averaged around 300,000 (or 1.1 per cent) a year between 1999 and 2008. After falling during the recession, job growth was fairly stagnant between 2011 and 2013 before picking up strongly, growing on average by around 650,000 jobs a year (or 2.3 per cent) from mid-2013 to

September 2015. Using employee job data for Great Britain only – an industrial breakdown is not available for Northern Ireland – it can be disaggregated to look at various low-paying sectors. Figure 6.8 shows that job growth in the low-paying sectors began to pick up in 2010, after the recession, and was much stronger than job growth in the whole economy until 2015.

6.44 In the year to September 2015, job growth in the low-paying sectors remained strong in absolute terms at around 100,000 or 1.0 per cent, while job growth in the rest of the economy was nearly 400,000 – or 2.1 per cent. But it slowed relatively – compared with September 2014 and the period 2010-2013 when job growth in low-paying sectors outpaced non low-paying sectors.

Figure 6.8: Annual Change in Employee Jobs, by Sector, GB, 2008-2015



Source: LPC estimates based on ONS employee jobs series, every three months, not seasonally adjusted, Great Britain, 2007-2015.

6.45 Emerging job pressures relevant to our deliberations are most likely to be seen at the level of individual low-paying sectors. Table 6.2 shows that over the year to September 2015, job growth varied considerably at this level.

6.46 Employment in the consumer service low-paying sectors increased by around 1.3 per cent but this consisted of very little growth in retail (0.1 per cent) contrasting with quite strong growth in hospitality and leisure (around 4 per cent) and hairdressing (8.3 per cent). Job growth in the business-to-business low-paying sectors was around 1.0 per cent with cleaning jobs increasing by 1.6 per cent and employment agency jobs static. The low-paying sectors that are more exposed to international competition, grouped here as trade, have previously fared poorly since the introduction of the NMW in 1999 with a loss of around 350,000 (or

National Minimum Wage

34.6 per cent) since then. But they saw increases of nearly 50,000 jobs (or around 7.2 per cent) in the year to September 2015 with large percentage increases in agriculture, food processing and the manufacture of textiles and clothing – though it should be noted their performance tends to be volatile. In contrast, there was an overall fall in the number of jobs in the government-funded sectors covering childcare and social care. The 7.5 per cent increase in residential care jobs was more than offset by a striking 10.5 per cent reduction in domiciliary and childcare jobs.

Table 6.2: Employee Jobs, by Low-paying Sector, GB, 2013-2015

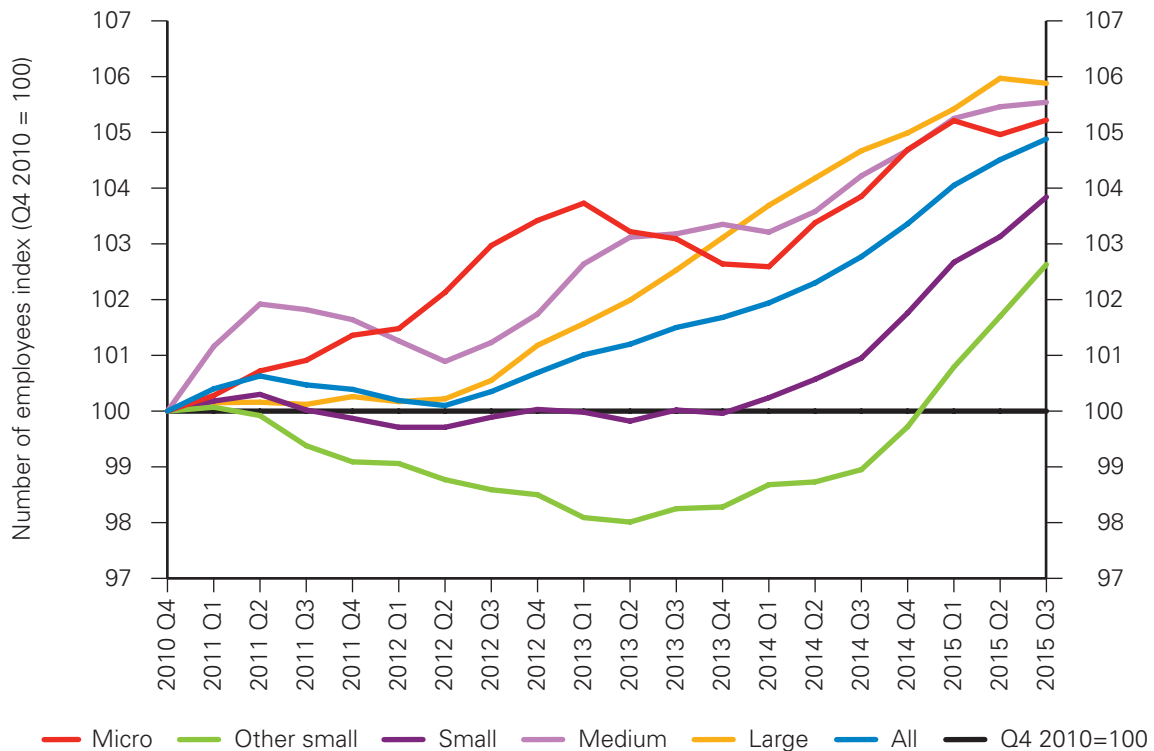
	September 2015	Annual growth Sept 2014-Sept 2015		Annual growth Sept 2013-Sept 2014	
	000	000s	%	000s	%
All industries	28,366	476	1.7	843	3.1
Non low-paying industries	18,716	383	2.1	526	3.0
All low-paying industries	9,650	93	1.0	317	3.4
Consumer services	5,958	79	1.3	154	2.7
Retail	3,254	-33	-1.0	96	3.0
Retail (excluding motor)	2,792	2	0.1	71	2.6
Hospitality	2,054	81	4.1	74	3.9
Leisure, travel and sport	523	21	4.2	-8	-1.6
Hairdressing	127	10	8.5	-8	-6.4
Business-to-business services	1,465	13	0.9	97	7.2
Cleaning	712	11	1.6	47	7.2
Employment agencies	753	2	0.3	50	7.1
Trade	656	44	7.2	22	3.7
Food processing	364	20	5.8	6	1.8
Agriculture	196	16	8.9	10	5.9
Textiles, clothing	96	8	9.1	6	7.3
Government-funded	1,571	-43	-2.7	44	2.8
Residential care	764	53	7.5	33	4.9
Domiciliary care/childcare	807	-96	-10.6	11	1.2

Source: LPC estimates based on ONS employee jobs series, every three months, not seasonally adjusted, 2013-2015.

- 6.47** Overall, retail, domiciliary care, employment agencies and childcare are the main sectors with weak or negative employment growth – so could be more vulnerable than other sectors were there any negative effects from the introduction of the NLW. Conversely, some of the traded sectors where stakeholders have expressed concerns about the introductory rate such as agriculture, food processing and textiles have seen stronger employment performance in the past year, though longer-term declines.
- 6.48** As well as some low-paying sectors highlighting concerns about the NLW, Chapter 2 set out stakeholder evidence and economic analysis suggesting that small firms could be more affected than large ones. Figure 6.9 considers employment growth by firm size. Since the end of 2010, the strongest growth in number of employees has been in medium-sized and

large firms. Growth in micro firms has also been strong, while that in other small firms had been weak until the end of 2014, but since then the number of employees has increased fastest in small firms.

Figure 6.9: Change in Employment, by Firm Size, UK, 2010-2015



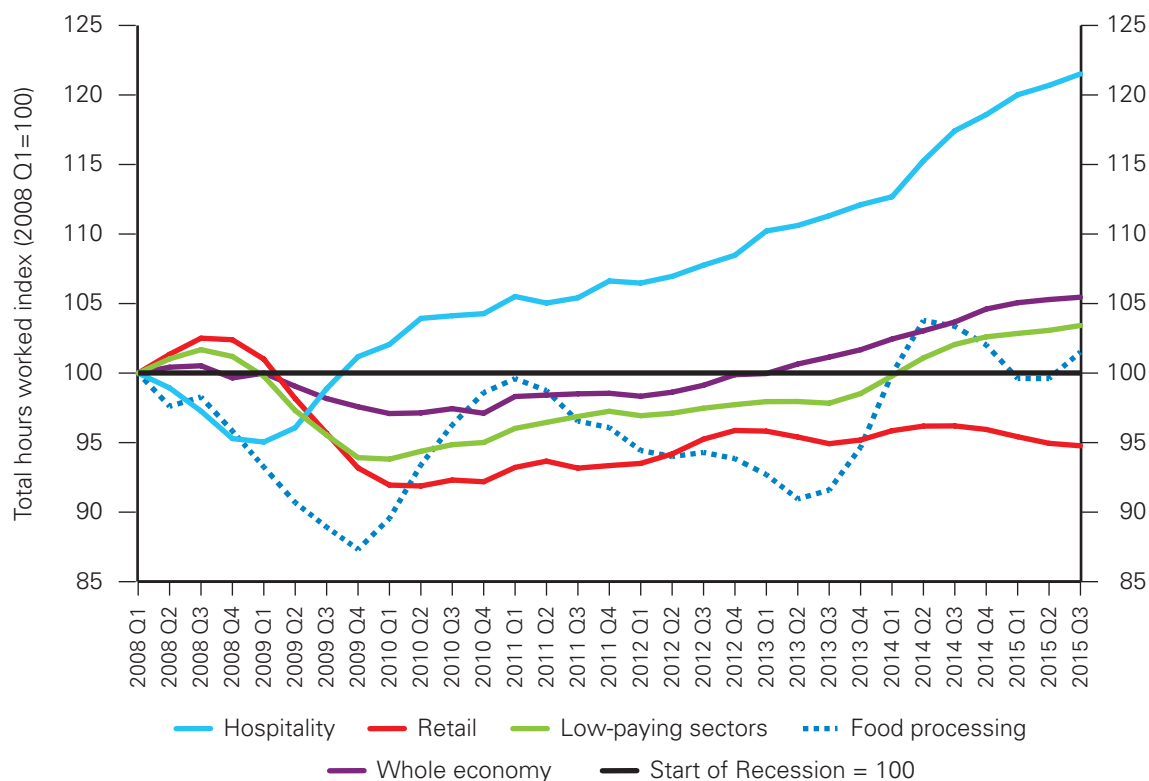
Source: LPC estimates based on LFS Microdata, quarterly, four-quarter moving average, UK, Q1 2010-Q3 2015.

Hours

6.49 As well as job numbers, the number of hours worked each week can also be used as a key measure of employment. We can see from Figure 6.10 that total hours worked fell by nearly 3 per cent during the recession but had returned to their pre-recession level by the second quarter of 2013. Since then hours worked in the whole economy have increased by around 2 per cent a year, reflecting the increase in employment over the same period. The pattern for the low-paying sectors has been a little different with a fall in hours of over 6 per cent during the recession and taking until the second quarter of 2014 to recover.

6.50 Figure 6.10 also shows that hours growth in hospitality has been stronger than in the economy as a whole and has followed a very different path to that of retail. After falling by around 5 per cent, the number of hours in hospitality had returned to its pre-recession level by the fourth quarter of 2009. And that growth in hours has continued, picking up pace in 2014 and 2015. In the third quarter of 2015, the number of hours worked in hospitality was over 21 per cent higher than at the start of the recession. In contrast, the number of hours worked in retail was still around 5 per cent lower than in the first quarter of 2008.

Figure 6.10: Hours Worked, by Sector, UK, 2008-2015

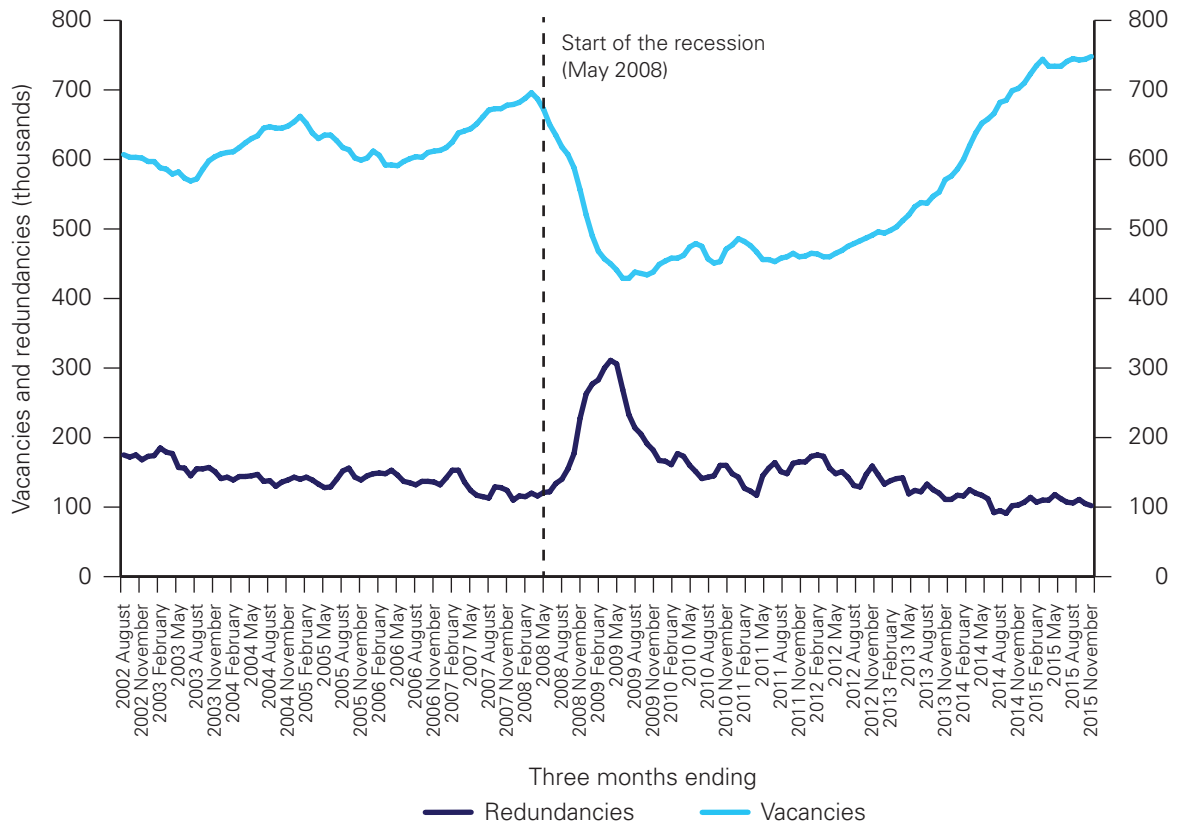


Source: LPC estimates based on LFS Microdata, quarterly, four-quarter moving average, UK, Q2 2007-Q3 2015.

Vacancies and Redundancies

6.51 Vacancies and redundancies can also be used as measures of the state of the labour market. Figure 6.11 shows that the onset of recession led to a sharp fall in vacancies, which was mirrored by an increase in redundancies. Vacancies had been rising prior to the recession, reaching 700,000 at its onset. The number then fell to around 430,000 in June 2009. After the recession, it took a while for vacancies to pick up – remaining below 500,000 until 2013 – but they started to increase in 2013, grew strongly in 2014, rising to levels in 2015 that were higher than those observed before the recession. Since spring 2015, levels have flattened off.

6.52 Redundancies rose sharply in 2008 and 2009 before falling back quite quickly towards pre-recession levels by the beginning of 2011. They have gradually fallen since then to around 100,000 a quarter throughout 2015 – considerably below the peak of 300,000 during the recession. There has been little recent change.

Figure 6.11: Vacancies and Redundancies, UK, 2002-2015

Source: LPC estimates based on ONS data: vacancies (AP2Y) and redundancies (BEA0), monthly, seasonally adjusted, 2002-2015.

- 6.53** Vacancy data is also available by firm size. Vacancies generally increased across all sizes of firm from the beginning of 2011, reaching their peak in the middle of 2014. However, since then the increase in the number of vacancies has slowed considerably with the number of vacancies static in small firms and falling in micro firms in the third quarter of 2015. Growth in the number of vacancies had also weakened in medium-sized and large firms. But vacancies for all sizes of firm remain greater than pre-recession levels.

Prospects for the Labour Market

- 6.54** Looking ahead, the continued recovery in economic output remains the key driver of momentum in the job market, and forecasts suggest continued job growth. However, future increases are unlikely to lead to falls in unemployment as fast as the UK has experienced in recent years. The OBR (2015c) forecast that the numbers in employment will grow by 1.3 per cent in 2016, similar to the growth experienced in 2015. It also forecast that the ILO unemployment rate will fall to 5.1 per cent in 2016 but increase to 5.2 per cent in 2017 and that the claimant count will fall to around 770,000 in 2016 before increasing to 820,000 in 2017. The HM Treasury Panel of Independent Forecasts (2016) consensus is for jobs growth of around 0.9 per cent in 2016, a slight weakening from 2015, but one forecast to lead to a small fall in the unemployment rate (to 5.1 per cent) and the claimant count (to 780,000).

- 6.55** The OBR (2015c) also forecast other labour market data over the next five years. Total employment is expected to increase from 31.1 million in the third quarter of 2015 to 31.6 million in the fourth quarter of 2016 but then slow to reach 31.8 million in the fourth quarter of 2017. It anticipates that will mean that the employment rate of the adult population will increase from 59.9 per cent in 2015 to 60.2 per cent at the end of 2016 but that the increase in the employment level will only match that of the population growth in 2017, leaving the employment rate at 60.2 per cent. The number of employees is forecast to increase by around 1.1 per cent in 2016 and by 0.7 per cent in 2017. The growth in hours worked is expected to be slightly weaker than the growth in employment. The number of hours worked is expected to increase by 1.1 per cent from 997 million in the third quarter of 2015 to 1,011 million in the fourth quarter of 2016 and by 0.4 per cent to 1,015 million in the fourth quarter of 2017. The average number of hours worked is forecast to remain at around 32.0 per week.
- 6.56** Employer surveys support a picture of more modest but solid future jobs growth. In its Employment Outlook Survey, Manpower (2015) reported that hiring prospects had increased in the first quarter of 2016 when compared with the previous quarter. They were a little below the average that has been reported since the beginning of 2013: higher for large firms than for micro firms, modest and below average in retail, and negative in construction – but stronger in hotels and restaurants. Hiring intentions were strongest in London, the South East and the North West but employment was expected to fall in Northern Ireland.
- 6.57** The Chartered Institute for Personnel and Development (CIPD) publishes the results of its survey of employers each quarter. In its latest Labour Market Outlook, the CIPD (2015b) reported that near-term employment intentions remained above historic averages. The net balance of employment intentions, which measures the difference between the proportion of employers who expect to increase staff levels compared with those who expect to decrease staff levels in the next quarter, was +28 in autumn 2015, roughly in line with the balance recorded in summer 2015 (+29) and autumn 2014 (+30). The positive net employment intentions were driven by the private sector. The net balance for the private sector was +41 for autumn 2015, in line with reported balances over the last year (+46 for autumn 2014).
- 6.58** The CIPD (2015b) also found that the proportion of employers experiencing recruitment difficulties had increased over the last year. Around 15 per cent of current vacancies have been hard to fill. Among the top ten roles that employers had difficulty filling were four relatively low-paying occupations, including nursing, sales and marketing, care/social workers, and retail assistants. Despite the reported increase in recruitment difficulties, the number of applicants per vacancy was similar to that reported in previous CIPD reports. In both autumn 2015 and autumn 2014 the median number of applicants for low-skilled vacancies was 25. This was higher than for more highly skilled jobs (around 9 for the highest skilled jobs).
- 6.59** In response to these recruitment difficulties, employers tended to look to upskill their existing workforces, hire more apprentices, or recruit migrant workers. Only 22 per cent of employers sought to raise starting salaries. This proportion was greater among private sector employers (26 per cent) than public sector employers (11 per cent), reflecting the pay restraint in the public sector.

- 6.60** Similarly, in their December 2015 Report on Jobs, the Recruitment and Employment Confederation/KPMG (2016) reported that the rate of expansion of permanent and temporary jobs had eased but indicated modest growth in both. The increase in vacancies for both was lower than had been recorded at the end of 2014 but remained strong. The growth in permanent staff was weakest in construction and hotels & catering and had slowed since December 2014. In contrast, the growth in temporary jobs was strongest in hotels & catering and had strengthened over 2015. Demand for temporary and permanent care workers had weakened but still pointed to modest job growth. Availability of staff to fill both permanent and temporary positions had decreased with staff shortages in permanent low-paying sector roles reported for drivers, care workers, secretaries and support staff, call centre workers, sales and customer service workers. Skill shortages were also reported for temporary roles, including cleaners, shop floor workers, chefs, care workers, nurses, secretaries, call centre staff, telesales and customer service workers.
- 6.61** In its JobsOutlook, REC (2015) reported that 80 per cent of employers surveyed thought that economic conditions would get at least a little better over the next three months. Over 80 per cent of surveyed employers were looking to recruit permanent workers in the next three months with around three quarters looking to increase the workforce later in the year. The most likely recruiters were small firms with 11-50 employees. In contrast, employers appeared more reluctant to use more agency staff. Around 48 per cent were looking to increase their use in the next 3 months with a similar proportion adding to their use of agency workers in the rest of 2016. The increase in use of agency workers was related to size of firm with the largest firms (201 or more employees) being most likely and micro firms (1-10 employees) being least likely to take on more agency workers. The survey also reported there was likely to be an increase in permanent and temporary jobs in hospitality over the next three months.

Summary of the Labour Market

- 6.62** On labour market performance, 2015 was characterised by continued solid employment and hours growth (albeit weaker than the record levels of 2014) including employment growth among both workers aged under 25 and those aged 25 and over, permanent and full-time employees. The number of jobs grew reasonably though, unlike in previous years since the start of the recovery, performance was weaker in low-paying sectors than non low-paying sectors. There was strong growth in jobs in the year to September 2015 in hospitality and leisure and small firms. The main areas of weakness were retail, childcare and domiciliary care. Vacancies had also levelled off, with no growth or falls in numbers for small and micro firms. Looking ahead, forecasts suggest more modest but solid jobs growth. Hiring intentions remain fairly strong including in sectors like hotels and restaurants. There has been little evidence of reduced demand from the NLW and other changes to labour costs yet.
- 6.63** Having considered two of the factors that we had thought necessary for future increases in the NMW, we now turn to the third one – productivity.

Productivity

- 6.64** A weak recovery in output combined with a strong recovery in employment and hours has been reflected in the disappointing productivity performance, but with moderate improvement in the most recent period.
- 6.65** As shown in Figure 6.12, productivity fell sharply with the onset of recession, recovered in 2010 and 2011, plateaued in 2012 before picking up again since 2013. Yet output per worker and output per job were only just over 0.5 per cent higher in the third quarter of 2015 than in the first quarter of 2008. Output per hour was a little better, having grown by around 1.6 per cent over the same period.
- 6.66** Looking more recently there have been some signs of improving productivity performance. Between the fourth quarter of 2012 and the third quarter of 2015, output per worker and output per job increased by 2.9 per cent, while output per hour increased by 2.8 per cent. That compares with growth in output per worker and output per job of just 0.2 per cent between the fourth quarter of 2010 and the fourth quarter of 2012. Output per hour actually fell by 0.2 per cent during that time.
- 6.67** Productivity growth, however, remains weak compared with pre-recession trends and on all three measures is still around 16 per cent lower than it would have been had pre-recession trends continued from 2008 to the present day.

Figure 6.12: Productivity on Various Measures, UK, 2008-2015

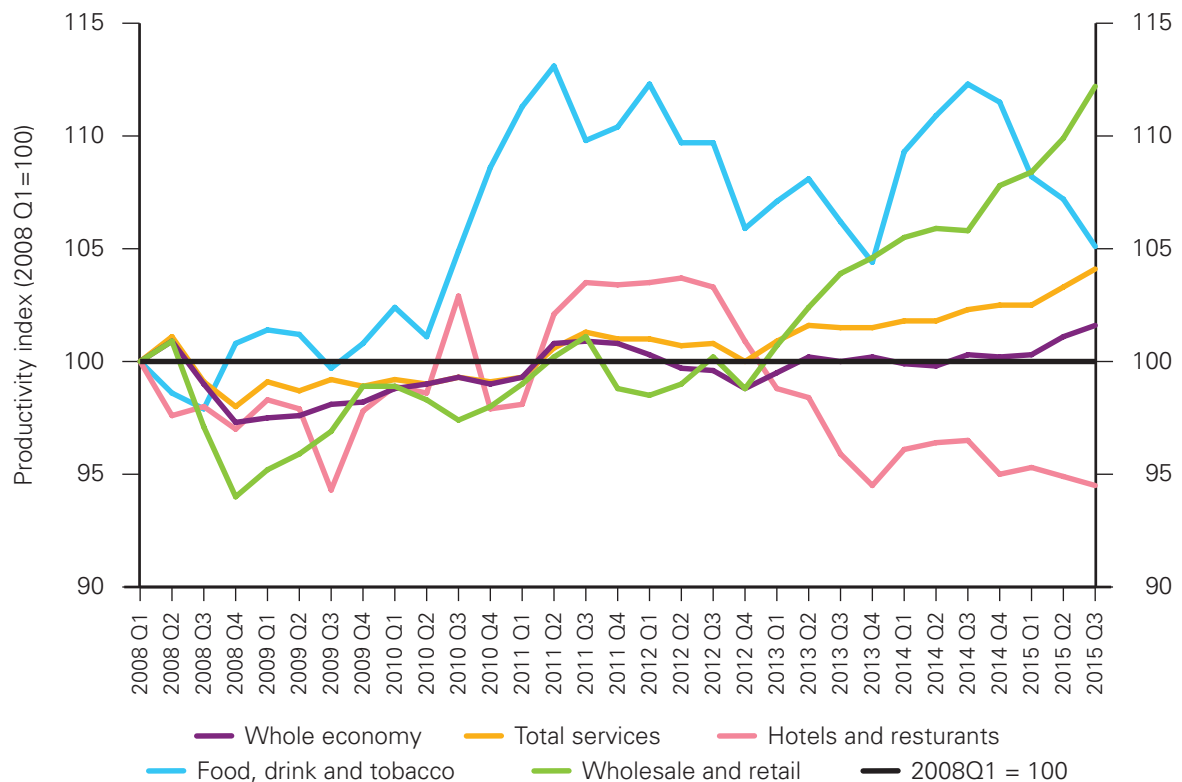


Source: LPC estimates based on ONS data: output per worker (A4YM), output per job (LNNN), output per hour (LZVB), quarterly, seasonally adjusted, Q1 2008-Q3 2015.

- 6.68** Looking at productivity by sector, there has been a clear divergence between the productivity performance in wholesale and retail, and in hotels and restaurants, with neither following the path of the economy as a whole since the end of 2012. Figure 6.13 shows that productivity

per hour in wholesale and retail, and in hotels and restaurants, tracked the economy as a whole during the recession and initial stages of recovery – falling in 2008-09 then rising back towards pre-recession levels by 2011. However, since the fourth quarter of 2012 productivity per hour in wholesale and retail has increased strongly and is now 12 percentage points above its pre-recession level (driven by employment falls), whereas it is still over 5 percentage points lower in hotels and restaurants (where employment has increased strongly).

Figure 6.13: Productivity for Whole Economy, Retail and Hospitality, UK, 2008-2015



Source: LPC estimates based on ONS data (output per hour): whole economy (LZVB), total services (DJP9), hotels and restaurants (DJQ4), food, drinks and tobacco (DJK9) and wholesale and retails (DJR2), quarterly, seasonally adjusted, Q1 2008-Q3 2015.
Note: Output per hour.

- 6.69** In 2015, the story was unchanged: productivity per hour in wholesale and retail has continued to increase strongly at around 3 per cent, but has only grown by about 1 per cent in hotels and restaurants. Productivity in food manufacturing was around 5 per cent higher in the third quarter of 2015 than at the onset of recession. However, that is a decline of around 7 per cent since the middle of 2011. A similar picture emerges using productivity per job. This appears to be the obverse of sectoral trends in employment growth. Among these sectors, those with less strong jobs growth have had higher productivity, and vice versa.
- 6.70** Looking ahead, with output expected to grow faster than employment, jobs or hours in 2016, the productivity performance of the UK may accelerate (indeed, it is the pick-up in productivity that generates the increases in average earnings growth that the Bank of England and the OBR expect to see as we head towards 2020). The OBR (2015c) expects output to increase by 2.4 per cent in 2016 and 2.5 per cent in 2017, compared with respective increases of 1.3 per cent and 0.6 per cent in total employment; and 1.0 per cent and 0.7 per cent in hours worked. The OBR therefore expects growth in output per hour to

increase from 1.1 per cent in 2015 to 1.5 per cent in 2016 and 1.9 per cent in 2017, though the increase in output per worker is expected to be slightly weaker. However, as with pay, it should be noted that previous hopes of a recovery in productivity have not fully been realised.

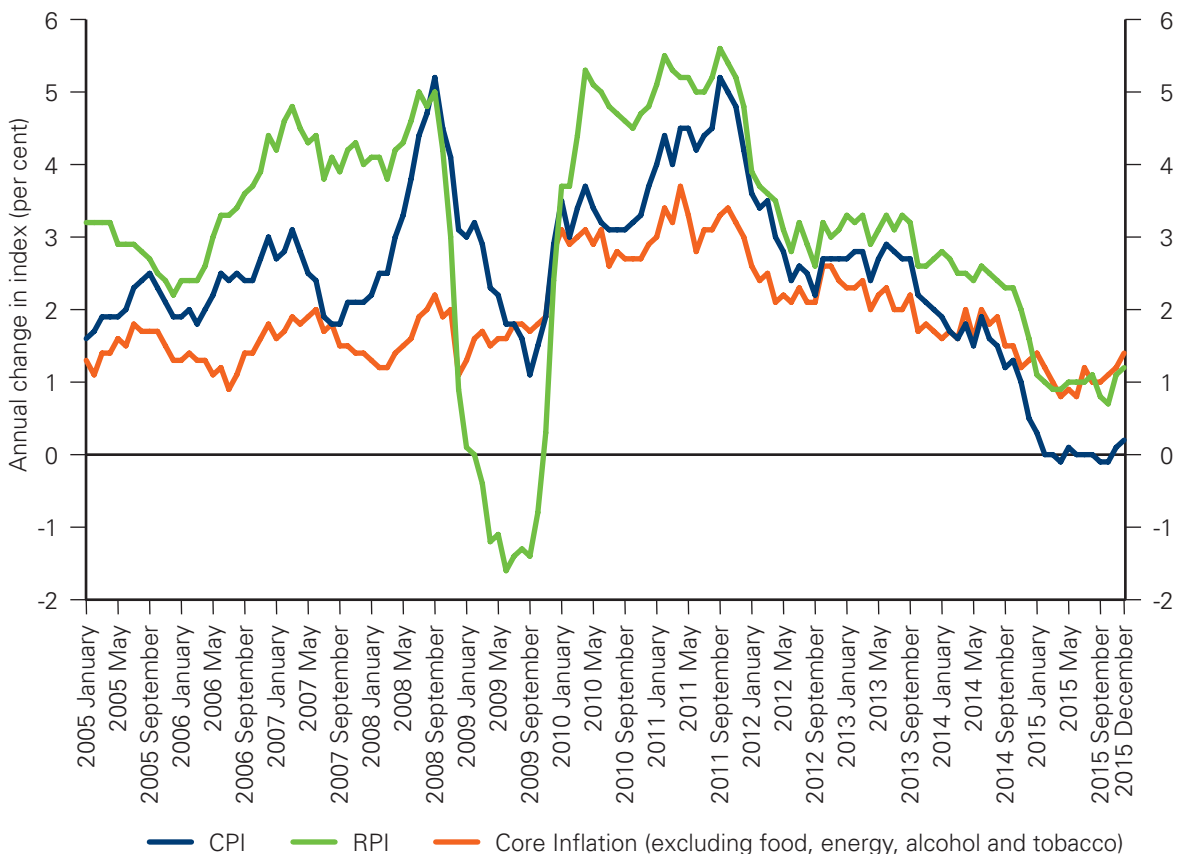
Inflation, Pay and Earnings

6.71 Other things being equal, continued growth and employment, alongside a pick-up in productivity growth, would be expected to begin to lead to increased pressure on pay and there were some signs of strengthening earnings growth. But, as in previous reports, there remains limited evidence of a step change in performance.

Inflation

6.72 The inflation rate has been at historically low levels during 2015, as shown in Figure 6.14. CPI inflation was stable at around zero for ten months between February and November 2015, kept low by falling energy and food prices and the appreciation of sterling. The latest available data put CPI inflation at 0.2 per cent and RPI inflation at 1.2 per cent. Core inflation, excluding food, energy, alcohol and tobacco, was slightly higher, at 1.4 per cent.

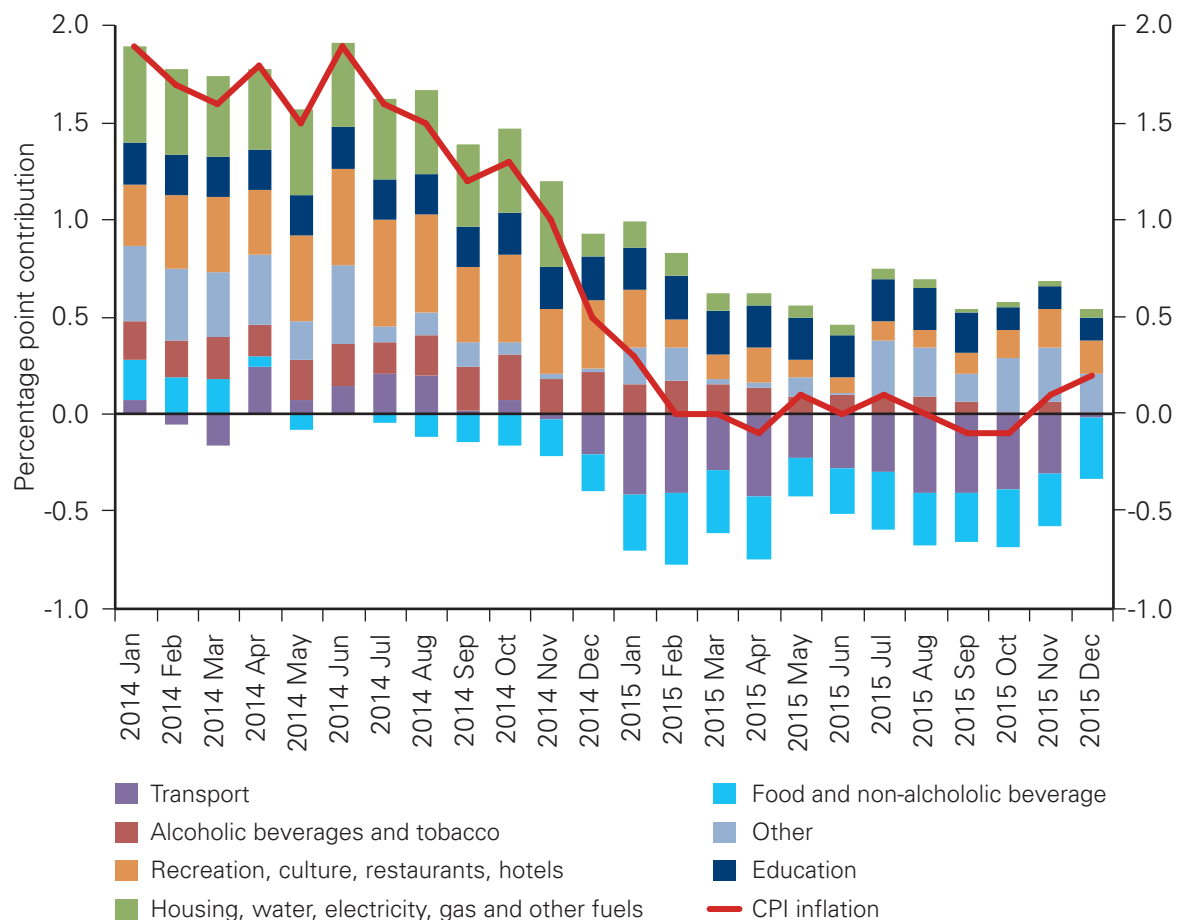
Figure 6.14: Inflation, UK, 2005-2015



Source: LPC estimates based ONS data: CPI (D7G7), RPI (CZBH), and core inflation (DK08) monthly, not seasonally adjusted, UK, 2004-2015.

6.73 The impact of the falling oil price, and its knock-on effect on petrol and fuel prices in the inflation indices, can be seen in Figure 6.15. What has historically been an upward pressure on the inflation rate has become a downward influence over the last year. Within housing costs, falling energy prices have been offset by 3 per cent rent inflation, although all housing costs are not fully incorporated in the CPI measure of inflation. Similarly food prices, a long-term upward pressure on inflation, have been falling since the middle of 2014, keeping inflation low. This was due to lower wholesale prices, lower import prices (through the appreciation of sterling) and competition among retailers, particularly from the discount chains. Price inflation in the key low-paying domestic sectors of recreation, culture, restaurants and hotels has also been falling.

Figure 6.15: Contributions to CPI Inflation, UK, 2014-2015

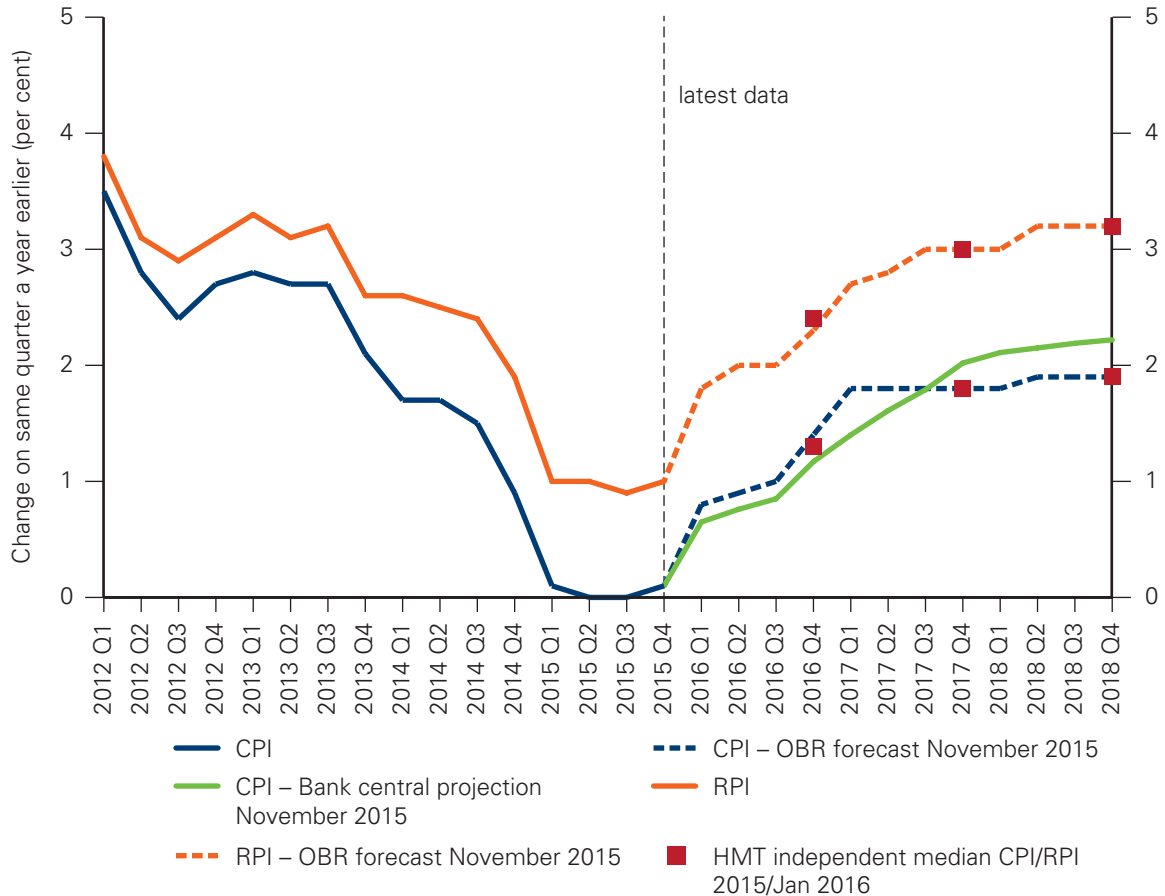


Source: LPC estimates based ONS data: CPI (D7G7), monthly, not seasonally adjusted, UK, 2014-2015.

6.74 Looking ahead, the inflation forecasts, as shown in Figure 6.16, suggest that inflation will rise from the start of 2016, as the oil price falls of early 2015 drop out of the 12-month comparison. However, levels are still set to remain low. CPI inflation is forecast to be 0.8-0.9 per cent in the second quarter of 2016, reaching 1.2-1.4 per cent by the fourth quarter. RPI inflation is expected to be around 2.3 per cent by the fourth quarter of 2016.

6.75 Low inflation has implications for pay. On the one hand: low nominal increases can amount to substantial real pay increases; on the other, it is harder for firms to raise prices to fund higher pay.

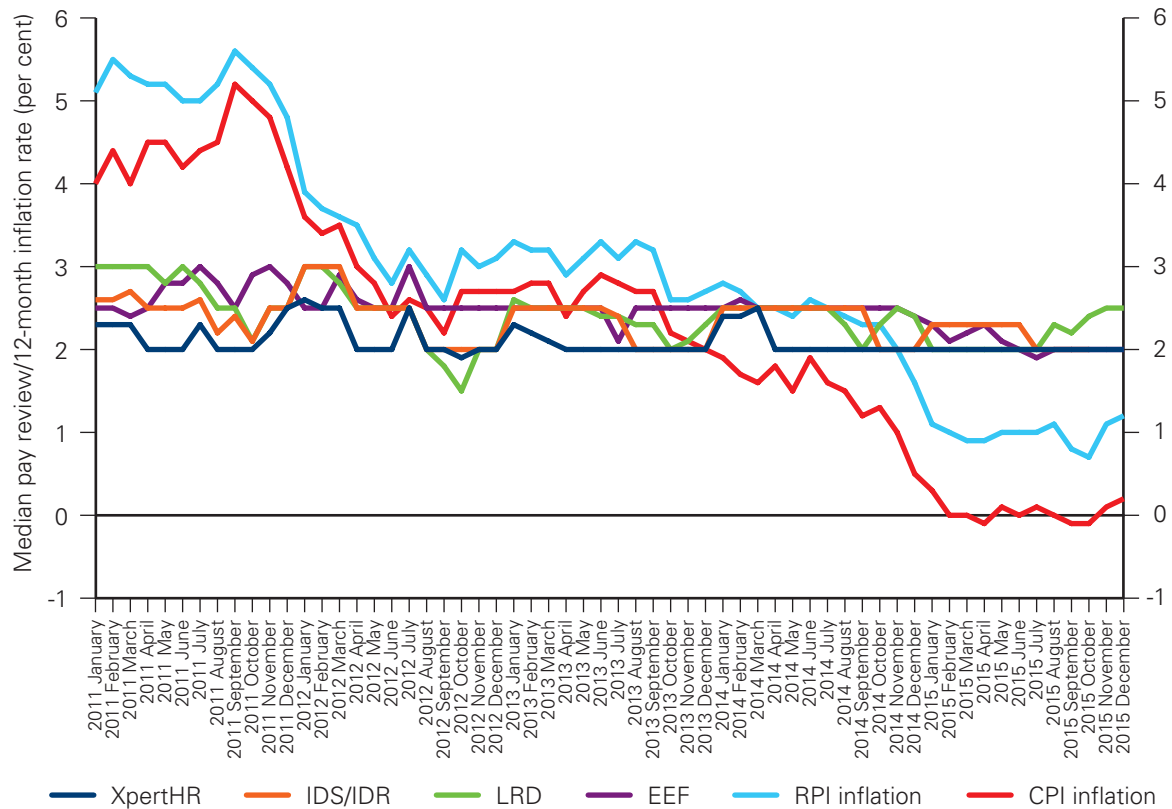
Figure 6.16: CPI, RPI and Forecasts of Price Inflation, UK, 2012-2018



Source: LPC estimates based on ONS data: CPI (D7G7), RPI (CZBH), quarterly, not seasonally adjusted, UK, Q1 2012-Q1 2015; Bank of England Inflation Report, November 2015; OBR (November 2015); HM Treasury (November 2015 and January 2016).

Pay Settlements

6.76 Pay settlement medians, as shown in Figure 6.17, suggest a slower recovery in pay than had been hoped. They have been broadly stable at 2.0-2.5 per cent throughout 2015, close to levels of the previous two years. XpertHR recorded a median of 2 per cent across all of 2015, while Incomes Data Services (IDS)/Incomes Data Research (IDR) and the Labour Research Department (LRD) monitored a 2.2 per cent median for the whole year and the median in manufacturing according to the EEF was 2.1 per cent. These pay reviews cover the bulk of staff in an organisation and, on the whole, do not appear affected by minimum wage upratings. In contrast to the relationship prior to the recession, when pay settlements tended to follow the inflation path – increasing above 3 per cent when inflation rose and falling back towards 3 per cent when inflation was falling – there also seems little relationship between pay settlements and price inflation in recent years.

Figure 6.17: Pay Settlements, UK, 2011-2015

Source: XpertHR, IDS/IDR, LRD, and EEF, pay databank records, three-month medians, UK, 2011-2015.

- 6.77** An analysis of XpertHR's database indicates that while lower-paying sectors such as hotels, catering and leisure, or retail and wholesale, received pay increases in line with the overall median, some higher-paid sectors, such as finance and professional and business services, received slightly higher median pay settlements, at 2.5 per cent. The pay settlement medians in the public and not-for-profit sectors were below the overall average. In contrast to the other pay researchers that had seen median pay awards end the year at 2.0 per cent, LRD recorded 2.5 per cent in December 2015.
- 6.78** One uncertainty of course is the impact of the NLW on pay-setting. Forward surveys for 2016 have not yet identified a noticeable effect. In its latest Labour Market Outlook, CIPD (2015b) reported that the expected median basic pay settlement, among those employers that were planning a pay review in the 12 months to September 2016, was 2.0 per cent in the private sector (unchanged for three years), 1.8 per cent in the voluntary sector and 1.0 per cent in the public sector. A survey of private sector employers by XpertHR (2015b), published in October, projected a median pay settlement of 2 per cent over the 12 months to August 2016, unchanged from the level of awards seen in 2014 and 2015. This is confirmed by an initial analysis of 70 pay reviews effective in 2016 already monitored by XpertHR (2016b), as shown in Table 6.3, which have a median of 2 per cent.

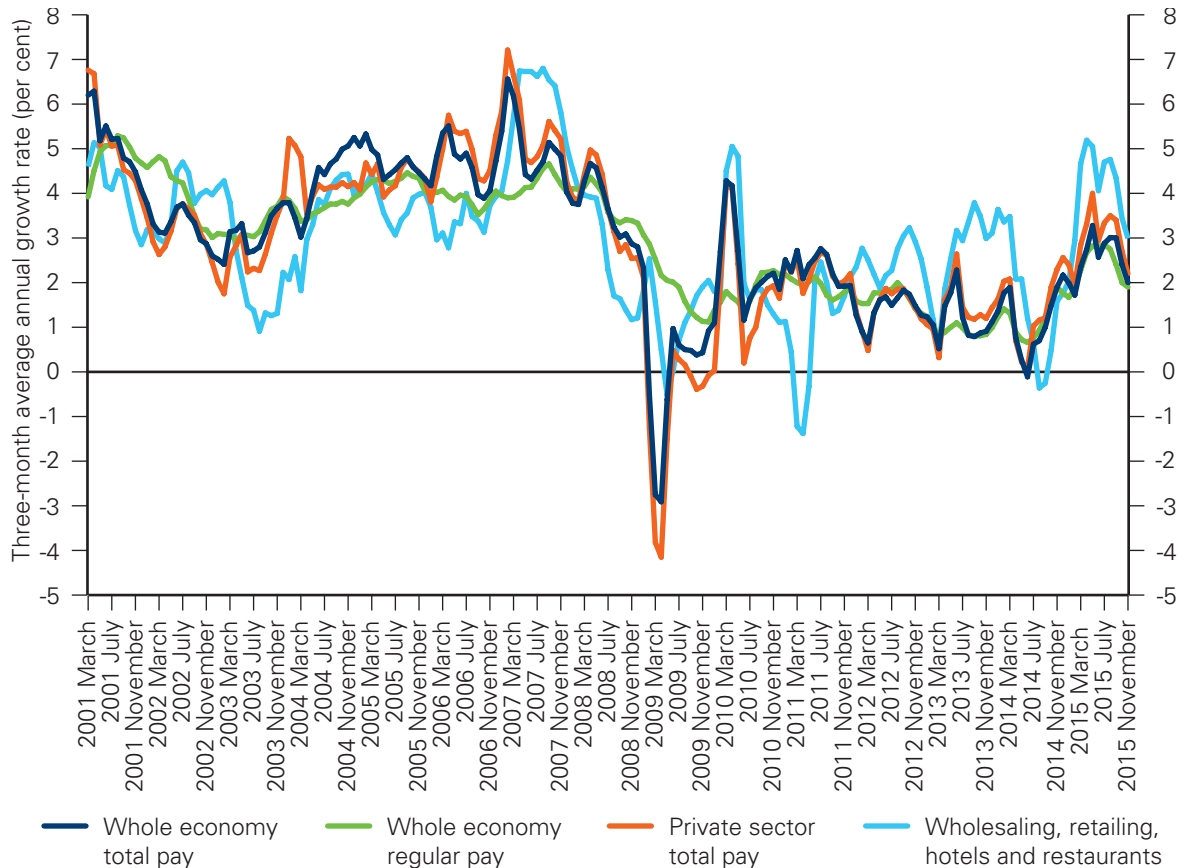
Table 6.3: Pay Settlements, by Sector, UK, 2015

Sector	Number of settlements	Lower quartile %	Median %	Upper quartile %
All	1611	1.5	2.0	2.75
Public	98	1.0	1.5	2.0
Private	1513	1.75	2.0	2.8
Manufacturing	573	1.75	2.1	3.0
Private services	940	1.75	2.0	2.7
Facilities, security and support services	21	1.25	2.0	3.0
Finance	71	2.0	2.5	3.0
Hotels, catering & leisure	146	2.0	2.0	2.5
Information & communication	161	2.0	2.0	2.5
Not for profit	177	1.1	1.75	2.0
Professional & business services	182	2.0	2.3	3.0
Retail & wholesale	114	2.0	2.0	3.0
Transport & storage	68	2.0	2.25	2.7

Source: LPC estimates based on XperTHR data, UK, 2015.

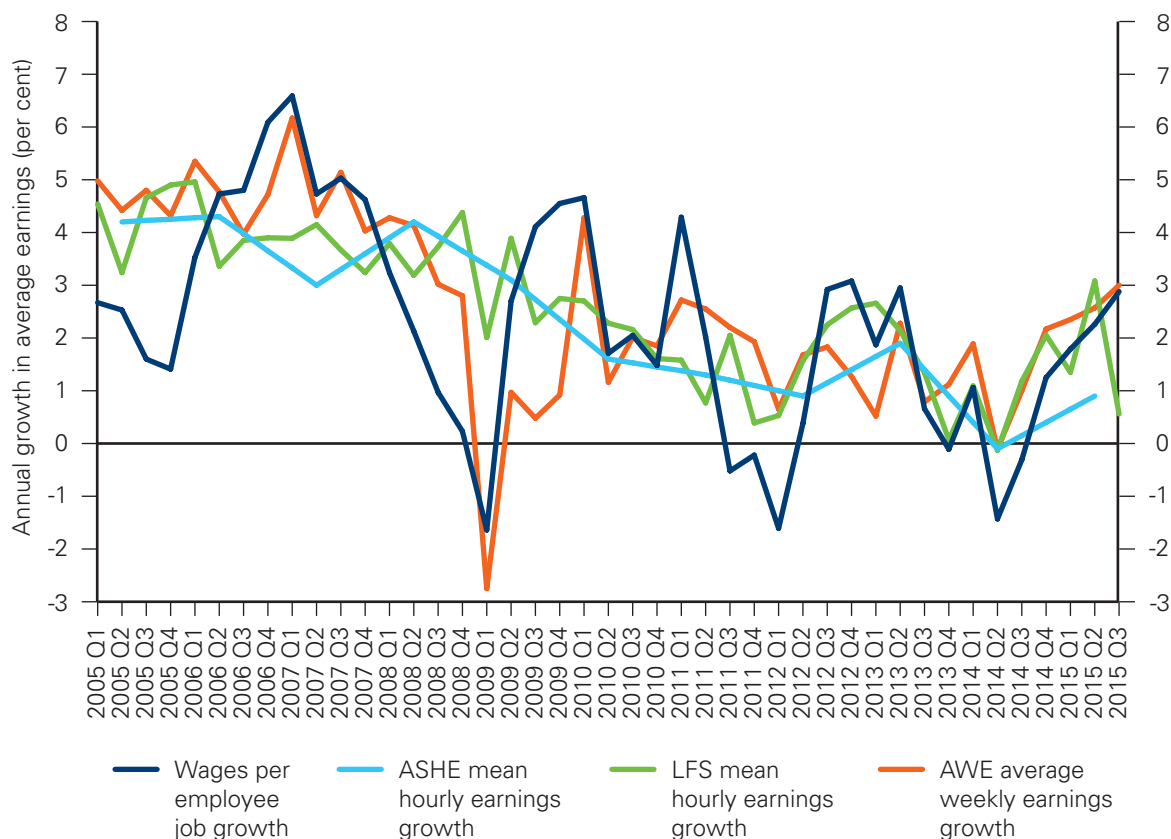
Earnings Growth

- 6.79** Average weekly earnings (AWE) growth has been moderate since 2008, at 1-2 per cent on the regular pay growth measure, as shown in Figure 6.18. However, 2015 saw the first – long-awaited – signs of earnings growth strengthening, with private sector total earnings growth in particular above 3 per cent for much of 2015. The stronger earnings growth came most notably from the wholesale, retail, hotels and restaurants sector. Indeed, in that sector earnings growth has been in the range from 3-5 per cent for most of 2015.
- 6.80** Using analysis by the Bank of England, Forbes (2016) estimated that compositional change in the labour market, such as more recent hires being younger, less experienced, or in occupations that pay less, reduced UK wage growth by 0.8 percentage points in the third quarter of 2015, suggesting that wage growth has been a little stronger taking this into account. In recent years, average earnings growth in the lower-paid wholesale, retail, hotel and restaurants sector had more than kept up with whole economy earnings growth and had been notably stronger in 2013 and 2015.
- 6.81** ASHE data was slightly weaker – showing earnings growth of 0.9 per cent in average hourly earnings for the year to April 2015. However, earnings growth at the median (full-time weekly earnings) was 1.8 per cent, rising to 3.1 per cent for full-timers at the lowest decile (it was 1.0 per cent at the top decile). Part-time weekly earnings growth was also stronger at the middle and bottom of the earnings distribution: increasing by 3.7 per cent at the median and by 4.0 per cent at the lowest decile, but actually fell by 2.1 per cent at the top decile.

Figure 6.18: Average Weekly Earnings Growth, GB, 2001-2015

Source: LPC estimates based on ONS data: AWE total pay (KAC3), private sector (KAC6), basic pay (KAI9), wholesaling, retailing, hotels and restaurants (K5CI), annual three-month average change for the whole economy (KAI9), monthly, seasonally adjusted, GB, 2001-2015.

6.82 Figure 6.19 and Table 6.4 show that alternative measures of average earnings growth give a similar picture for recent years. While data for earnings growth in individual months from different sources varies, the medium-term picture on earnings growth is remarkably similar. In the 10 years to the second quarter of 2015, average weekly earnings, according to AWE, grew by 27 per cent. The Labour Force Survey gives the same growth figure (27 per cent) for average hourly pay. The National Accounts measure for wages per employee job grew by 24 per cent over the 10 years, while ASHE indicates average hourly pay increased by 23 per cent. On all four measures, pay growth slowed in 2014 but picked up in 2015.

Figure 6.19: Alternative Measures of Earnings Growth, GB and UK, 2005-2015

Source: LPC estimates based on ONS data: average weekly earnings annual three-month average change in total pay for the whole economy (KAC3), monthly, seasonally adjusted, GB. Total compensation per employee (DTWM) divided by total number of employee jobs (BCAJ), annual growth rate, quarterly, seasonally adjusted, UK, 2005-2015. Labour Force Survey, average hourly earnings, quarterly, seasonally adjusted, annual growth rate.

Table 6.4: Measures of Wage Growth Compared, GB and UK, 2012-2015

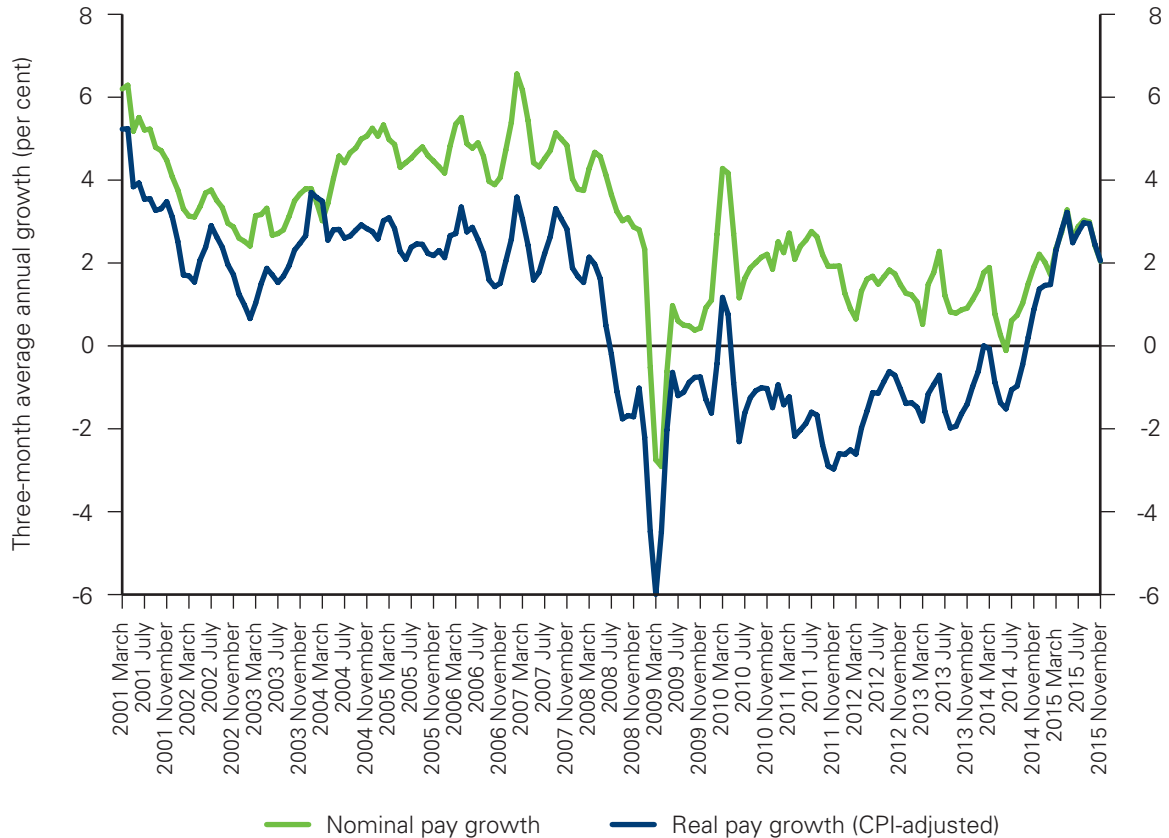
Earnings measure (period including April)		Earnings growth (%)				
		2012-13	2013-14	2014-15	2012-15	2013-15
Annual Survey of Hours and Earnings (ASHE)	Mean gross hourly	1.9	-0.1	0.9	2.8	0.8
	Median gross weekly	2.3	0.6	1.9	4.9	2.5
Average Weekly Earnings (AWE)	Regular pay	1.0	0.7	2.8	4.5	3.5
	Total pay	1.8	0.3	3.3	5.2	3.6
Labour Force Survey (LFS)	Mean full-time weekly	3.1	-0.7	2.7	5.1	1.9
	Mean hourly	2.1	-0.1	3.1	5.2	2.9
National Accounts	Wages per employee job	2.9	-1.4	2.3	3.8	0.8
	Wages per worker	2.6	0.0	2.3	4.9	2.3
	Compensation per employee job	3.4	-2.6	2.6	3.4	0.0
	Compensation per employee	3.1	-1.2	2.7	4.6	1.4

Source: LPC estimates based on ONS data: average weekly earnings in total pay for the whole economy (KAB9); in basic pay (KAI7), monthly, seasonally adjusted, GB. Total compensation per employee (DTWM) divided by total number of employees (MGRN); total compensation per employee job (DTWM) divided by total number of employee jobs (BCAJ); wage per worker (ROYJ) divided by total employment (MGRZ); wage per employee job (ROYJ) divided by total number of employee jobs (BCAJ); quarterly, seasonally adjusted, UK, 2012-2015. Labour Force Survey, average hourly earnings, quarterly, seasonally adjusted, annual growth rate. ASHE mean gross hourly pay excluding overtime and median gross weekly pay: 2010 methodology April 2012-15, standard weights, UK.

Note: ASHE is conducted in April each year. The AWE data is for the three-month period to May. The LFS data and National Accounts are for the second quarter.

6.83 Though 2-3 per cent average earnings growth remains low by historical standards, a key recent difference has been improvement in real pay. Thanks to the very low rate of (CPI) inflation, real average earnings growth has been positive for a year, as shown in Figure 6.20. This follows six years of average earnings falling in real value. As seen in previous chapters, workers have all seen the first sustained real pay rises for a long while.

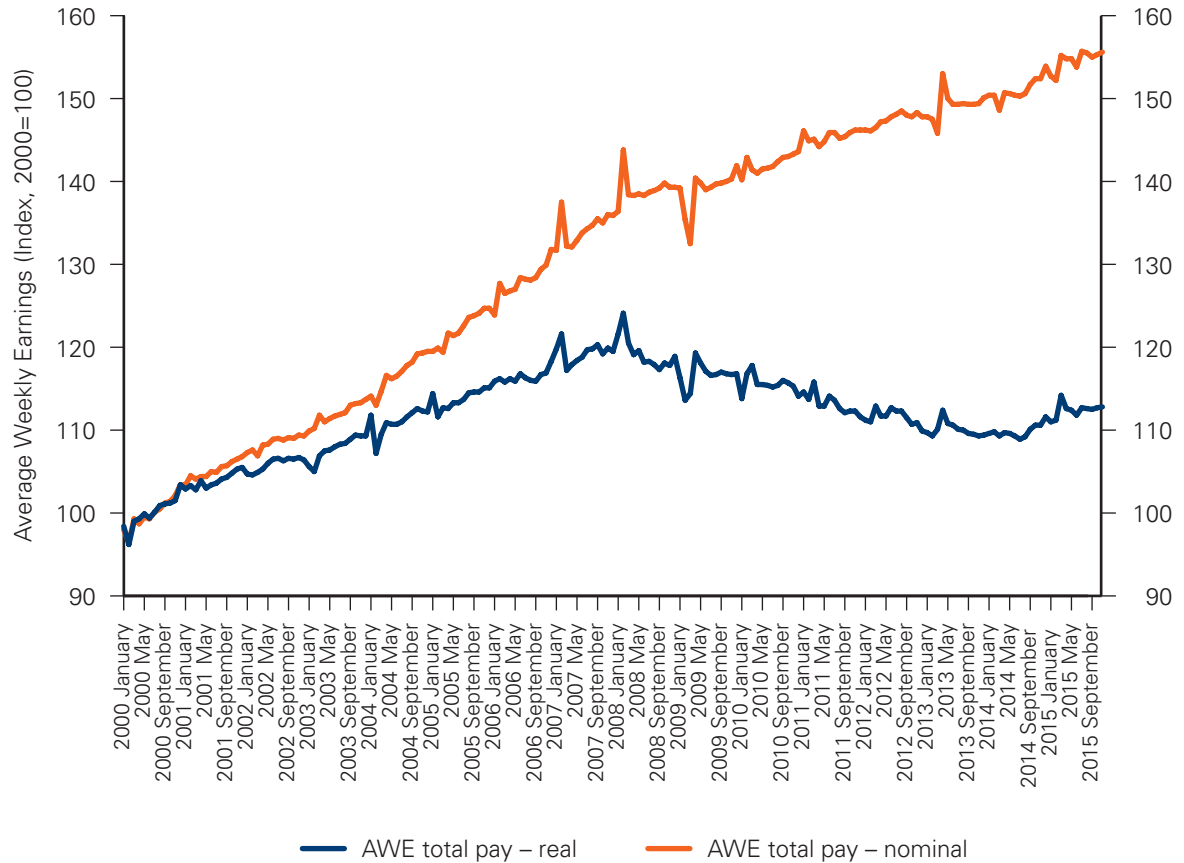
Figure 6.20: Growth in Real and Nominal Average Weekly Earnings Total Pay, GB, 2001-2015



Source: LPC estimates based on ONS data: AWE whole economy total pay growth (KAC3), real earnings growth (A3WW), monthly, seasonally adjusted, GB, 2001-2015.

6.84 Nominal average earnings growth has slowed since the onset of recession, as shown in Figure 6.21 – growing by around 34.3 per cent between 2000 and 2007 but by only 12.5 per cent between 2007 and 2014. That has affected real average earnings growth. Between 2000 and 2007 real average earnings grew by 19.3 per cent but then actually fell by 7.9 per cent between 2007 and 2014. Over the year to November 2015, both real and nominal average earnings increased by 2.3 per cent. However, despite that increase, real average earnings in November 2015 were still 9.1 per cent below their peak value in February 2008.

Figure 6.21: Real and Nominal Average Weekly Earnings Total Pay, GB, 2000-2015



Source: LPC estimates based on ONS data: real total average weekly earnings index (A2FD), nominal total average weekly earnings index (K54U), monthly, seasonally adjusted, GB, 2000-2015.
 Note: Real and Nominal AWE total pay index set at 2000=100.

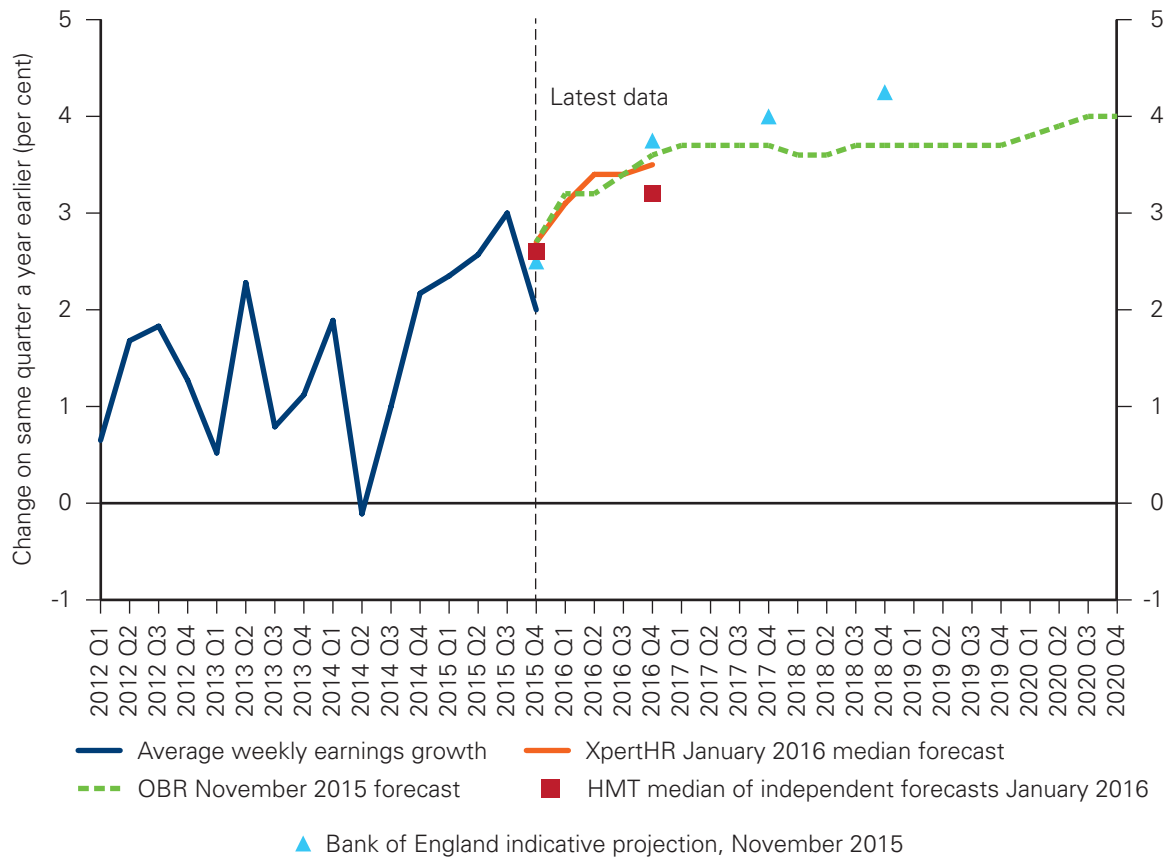
Prospects for Wage Growth

6.85 The latest forecasts for average earnings growth, as shown in Figure 6.22, show a degree of consensus that average earnings growth will pick up from the 3 per cent rate seen in the third quarter of 2015 to around 3.5 per cent in the fourth quarter of 2016 and gradually moving towards 4 per cent after that.

6.86 The Bank of England (2015c) noted that reductions in labour market slack and the rise in productivity had led to wage growth picking up over the past year but that it remained below its long-run average trend – it had grown by around 4¼ per cent between 1998 and 2007. It thought wage growth would depend on how easily firms attracted and retained suitable staff. If recruitment and retention was difficult, it was likely to increase wages for some individuals and in some sectors, but was unlikely to be across the board. However, the Bank thought that the unemployment rate would fall below its estimate of the long-run equilibrium rate – 5 per cent – leading to increased pressure on wages as spare capacity was used. Its pay growth path also reflected strengthening productivity and unit wage cost growth returning to normal – its long-run average was around 2¾ per cent. But it noted risks to its forecast. On the downside, low inflation could reduce wage pressures in the near-term but on the upside, the tightening labour market could result in higher pay increases. It revised its forecasts for wage growth down from 3 per cent to 2¼ per cent for 2015 but maintained

growth at 3¼ per cent for 2016 and expected wage growth to reach its long-run average (around 4¼ per cent) in 2018.

Figure 6.22: Average Earnings Growth and Forecasts, GB and UK, 2012-2020



Source: LPC estimates based on: ONS AWE total pay (KAC3), quarterly, seasonally adjusted, GB, 2012-2015; OBR (November 2015); XpertHR (December 2015); HM Treasury Panel of Independent Forecasts (January 2016), Bank of England assumptions and indicative projections (November, 2015).

6.87 Goldman Sachs (2016) also supported the Bank of England and the OBR's case for higher wage growth using similar arguments. It argued that, although the official measure of wage growth – AWE – had slowed towards the end of 2015, alternative wage measures, such as the British Chamber of Commerce (BCC) Quarterly Economic Survey, XpertHR and Vocalink remained strong and showed little signs of weakening. However, another leading indicator – from the REC survey – had also softened at the end of 2015. It argued that falling average hours worked may have led to the weakening in the official wage growth measure but it expected average hours to stabilise. It also believed that the labour market had become much tighter – with unemployment falling by 0.4 percentage points over the last year – and this would be reflected in faster wage growth in 2016. Like the Bank, it argued that the composition of the labour market may have dampened measures of average wages – new hires had been in low-paying sectors, while finance had struggled. It believed that had begun to reverse in 2015 and would continue to do so. Along with the Bank and the OBR, it also expected productivity to pick up. It noted that productivity had been flat in 2014 but had picked up in 2015. It thought that would continue albeit still below historic trends. It noted that the relationship between productivity and real wages may have weakened since 2009. The main risk on the downside to its forecast was that the persistent low inflation environment would feed through to wage negotiations.

National Minimum Wage

- 6.88** Another factor that might support an increase in wages is the introduction of the National Living Wage. In unpublished research we have commissioned for our 2016 Autumn Report, Incomes Data Research (IDR) surveyed around 40 firms, mainly high street retailers and found that, by January 2016, most of these employers had yet to make a decision on how they would meet their NLW obligations. But the Bank of England (2015a) estimated that the overall impact of the NLW on average earnings was likely to be limited, with only a small indirect impact on the wages of other staff, and offsetting reductions in other labour costs such as overtime. Bank staff thought that the overall impact of the NLW was likely to be an increase in the level of aggregate pay of less than 0.5 per cent gradually over the next five years, boosting average annual wage growth by less than 0.1 percentage points a year.
- 6.89** However, others have questioned the perceived extent of labour market tightening in the economy and have noted that earnings growth has persistently underperformed expectations since the recession. Bell and Blanchflower (2013) and Blanchflower and Machin (2014a, 2014b, 2014c, 2014d and 2016), among others, have argued that the traditional measures of labour market slack – the claimant count, the ILO unemployment rate or the vacancy to unemployment ratio – no longer appeared to have the same influence on wage pressures as they had previously. Indeed, with record job growth and rapidly falling unemployment, we might have expected nominal wages to have increased sharply, as forecast by the Bank of England, the OBR and many others. They have suggested alternative measures of labour market slack, for example, the level of underemployment.
- 6.90** ONS (2014) defined underemployment as those people in employment who are willing to work more hours, either by working in an additional job, by working more hours in their current job, or by switching to a replacement job. They must also be available to start working more hours within 2 weeks. It found that 9.9 per cent or 3.0 million UK workers were underemployed in 2014. Its measure had been around 6.5 per cent between 2004 and mid-2006, prior to the recession, but had picked up sharply during the recession and had peaked in the first quarter of 2013 at 10.8 per cent. Thus, it was still elevated in the second quarter of 2014.
- 6.91** An alternative measure, the Bell-Blanchflower Underemployment Index, is published by the Work Foundation each quarter. It measures the excess supply of hours in the economy (the desired additional hours of those currently in employment and the additional hours unemployed people would work if they were also employed). This measure of the underemployment rate was below the unemployment rate for the period up to the recession but has been above it ever since. Further, the unemployment rate has returned to its pre-recession rate but the underemployment rate remains above that. It reached a low of 4.3 per cent in the third quarter of 2004 and was 5.3 per cent in the fourth quarter of 2007, on the eve of recession. It then peaked at 10.3 per cent in the fourth quarter of 2011 and has been falling since. It was 6.4 per cent in the third quarter of 2015. This measure therefore suggests that the labour market has tightened considerably since the end of 2011 but that some slack still exists.
- 6.92** Another factor bearing on wage pressures is the size of the potential labour supply pool. Potential labour supply was no longer limited to the UK working age active population but had extended to consider higher participation from those who were inactive (those above

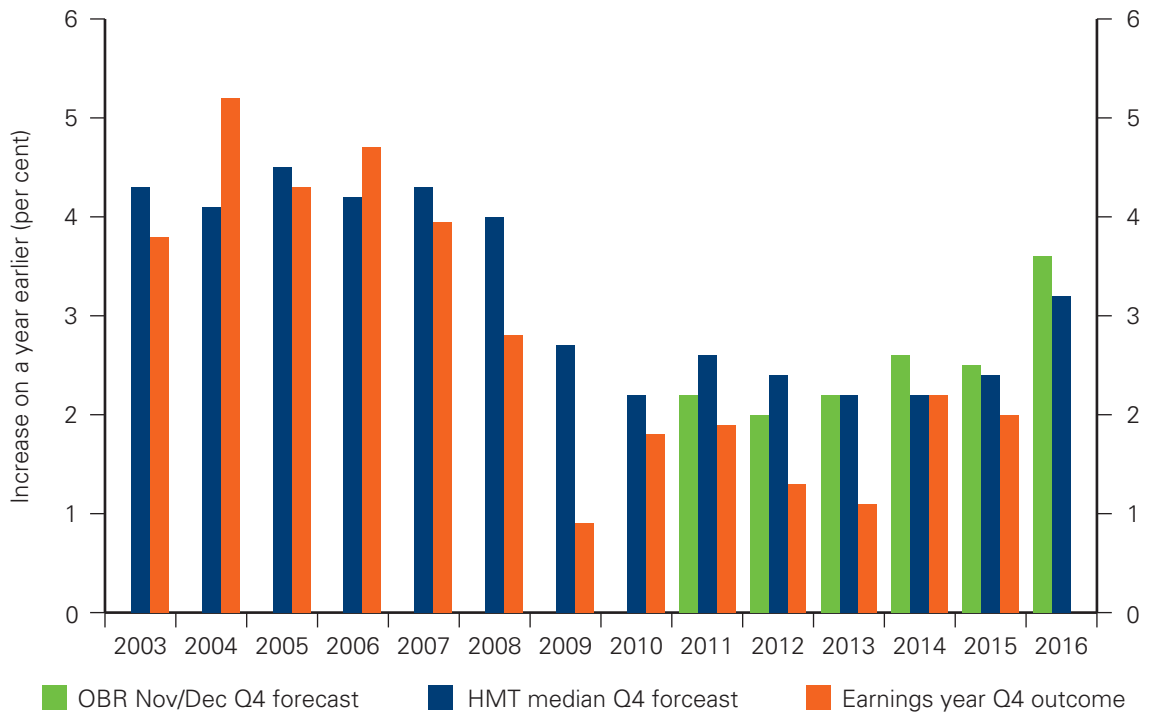
the State Pension Age and those approaching it, carers re-joining the labour market earlier than previously, and those previously on benefits encouraged to work) as well as net migration. Assessments of these measures might also help inform the extent of slack in the labour market.

- 6.93** Since the end of the recession (the second quarter of 2009), the UK population aged 16 and over has increased by 4.6 per cent to 52.0 million in the third quarter of 2015, while the numbers employed have increased much faster – by 7.3 per cent to 31.2 million, an employment rate of 60.0 per cent. It was therefore close to the 60.3 per cent recorded just prior to the recession at the end of 2007 and the first half of 2008.
- 6.94** The number of women in employment has increased faster than for men – rising by 7.6 per cent compared with 7.1 per cent. Much of that has been driven by the increase in the female State Pension Age from 60 to 65 but it has also been affected by demographic trends that have increased attachment of women to the labour market. This trend has been further supported by changed incentives from the benefit system that have encouraged lone parents to look for work.
- 6.95** There has also been greater attachment to the labour market from older workers. The employment rates for those aged 50-64 and 65 and over peaked in 2015. For those aged 50-64, the employment rate reached a new peak of 69.7 per cent in the third quarter of 2015 – a substantial increase from 58.7 per cent in the first quarter of 1997. Within this, the male employment rate (75.1 per cent) and the female employment rates (64.6 per cent) were also at record highs. For those aged 65 and over, employment rates peaked in the first quarter of 2015 – at 10.4 per cent for all, 13.8 per cent for men and 7.5 per cent for women. For those aged 50 and over, employment in the third quarter of 2015 had increased by 18.8 per cent to 9.5 million, from 8.0 million in the second quarter of 2009.
- 6.96** After falling throughout the 2000s, youth employment rates have picked up over the last two years. The increase in education participation led the 16-17 year old employment rate to fall from 49.5 per cent in the fourth quarter of 1997 to a low of just 21.2 per cent in the second quarter of 2014 but has picked up to 25.1 per cent in the third quarter of 2015. The pattern for 18-24 year olds is similar – the employment rate fell from 67.9 per cent in the fourth quarter of 1999 to 56.1 per cent in the fourth quarter of 2011, before rebounding to reach 62.0 per cent in the third quarter of 2015. The number of those aged under 25 in employment fell from 4.18 million in the fourth quarter of 2007 to 3.63 million in the second quarter of 2013 but has since increased by 8.7 per cent to 3.95 million.
- 6.97** The number of the working age population who are inactive has also fallen over the last year – many of whom have found employment. Using experimental data from ONS on flows into employment, there has been an increase in the numbers flowing into employment from inactivity, at the same time as the numbers flowing from unemployment has slowed. Between the third quarter of 2010 and the first quarter of 2013, an average of just under 450,000 people left inactivity each quarter to take up employment. Between the second quarter of 2013 and the third quarter of 2015, that had increased to around 500,000. Over the same time periods the flows from unemployment have fallen from around 570,000 a quarter

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on average to just under 550,000. Indeed, in each of the three quarters of 2015 so far, greater numbers going into employment have come from the inactive rather than the unemployed.

- 6.98** There have also been falls in the number of people claiming out of work benefits over the last few years. Although the numbers on Employment Support Allowance and other incapacity benefits increased by 2.6 per cent from 2.46 million in May 2013 to 2.52 million in May 2015, the total numbers on out-of-work benefits have fallen by 15.5 per cent, from 4.54 million to 3.84 million. There have been large falls in the claimant count and the numbers claiming lone parent benefits.
- 6.99** Another source of labour supply comes from net migration. In the year to June 2015, around 636,000 immigrants came to the UK, while 300,000 people who lived in the UK emigrated. That was a net migration of 336,000, an increase of 82,000 on the previous year to June (2014). Around 294,000 immigrants came to the UK for work-related reasons in the year to June 2015. This was an increase of 53,000 compared with June 2014. Around 55 per cent of those came from the EU.
- 6.100** Since the end of the recession in the second quarter of 2009, the number of people born outside the UK in employment has increased by 1.29 million (or 34.1 per cent) to reach 5.08 million in the third quarter of 2015. The increase for those born in the EU has been greater – up 62.5 per cent to 2.1 million. That compares with an increase of 1.0 million (or 4.0 per cent) for UK-born employment. Over that period, the employment rate for non-UK born people has increased from 65.9 per cent to 72.0 per cent. For the UK-born, it is higher and has increased from 71.4 per cent to 74.5 per cent.
- 6.101** Under the current EU rules with freedom of movement for workers across the European Union, it is unclear what the ceiling to migration and thus potential increases to the supply of labour in the UK might be. Hence, it is difficult to judge the extent of labour market slack in a relatively open country. Of course, that could change after the EU referendum if that resulted in 'Brexit' or if current negotiations concerning the UK's relationship with the EU results in rule changes restricting migration within the EU.
- 6.102** As the labour market has tightened with employment growing and unemployment falling, most forecasters have generally expected pressures on wages to increase. However, as a result of the slack in the labour market we have just outlined, there has so far been little evidence of a pick-up in wage growth. Figure 6.23 shows the recurrent optimism bias of forecasts in recent years, although 2014 and 2015's forecasts have been more accurate than those in previous years. Bearing this in mind, we note slowing average earnings growth in recent months. It would not be surprising if forecasts were revised down in light of the latest data.

Figure 6.23: Average Earnings Growth, Forecasts and Outcomes, GB and UK, 2003-2015

Source: LPC estimates based on: ONS AWE total pay (KAC3), quarterly, seasonally adjusted, GB, 2003-2015; HMT panel of independent forecasts, January 2003-2015; and OBR average weekly earnings growth forecasts, 2011-2015.

6.103 Overall, pay growth strengthened in 2015 but weakened in the second half of the year, with pay settlements remaining at around 2 per cent. The OBR, the HM Treasury Panel of Independent Forecasts and the Bank of England all expect pay growth to pick up quite strongly in 2016 and beyond, but it remains to be seen if these forecasts will be borne out. In any event, low inflation is likely to mean continued increases in real wages. Although the National Living Wage appears to be a significant intervention in the labour market, it does not as yet seem to have affected pay settlements or the general expectations of future pay settlements. Nor has it greatly affected forecasts for future average earnings growth. The consequences should come more sharply into focus as employers approach the April 2016 implementation date.

Summary of Economic Context and Forecasts

6.104 In summary, the economic context provides us with reasons both for optimism and for caution. Forecasts for 2016 and 2017 are similar to those that we had available for 2015 and 2016 at our meeting to decide on our rate recommendations in January 2015. Growth remains stable and recovery is further established than last year, with improving consumer confidence. GDP is expected to grow at or just below trend in both years, though growth had slowed somewhat, there were risks from China and the Eurozone, and business confidence had fallen.

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- 6.105** However, the labour market continued to perform well in 2015, helped by the recovery continuing its momentum, and the forecasts for employment and unemployment in 2016 and 2017 reflect that steady progress. There has been solid employment growth in the low-paying sectors, although it is now slower than in other sectors and there has been reduced employment in retail and domiciliary care. There was, as yet, little evidence that the continued strength of the jobs market had led to increased pressure on wages.
- 6.106** There had been some pay growth in the first half of 2015 and forecasts for 2016 suggest continued wage recovery. Low CPI inflation meant some real wage growth. But Average Weekly Earnings weakened in the second half of 2015, while settlements remained at around 2 per cent. The main difference between now (January 2016) and then (January 2015) is that inflation is expected to be weaker. Otherwise the forecasts follow a similar pattern.
- 6.107** If forecasts are met, our criteria for faster increases in the National Minimum Wage – sustained economic growth; employment growth; increases in real wages; and improvements in productivity – will also begin to have been met, suggesting scope for recommendations further raising the real and relative value of the different rates.

Table 6.5: Actual Out-turn and Independent Forecasts, UK, 2015-2017

Per cent	Actual data 2015	Median of independent forecasts (November 2015 and January 2016)		OBR forecasts (December 2015)	
	(Actual to Q4/whole year or latest)	2016	2017	2016	2017
GDP growth (whole year)	2.2^a	2.2	2.3	2.4	2.5
Average earnings AWE (whole year)	2.4^b	3.2	-	3.4	3.7
Inflation RPI (Q4)	1.0	2.4	3.2	2.3	3.0
Inflation CPI (Q4)	0.1	1.3	1.9	1.4	1.8
Employment growth^c (whole year)	1.1	0.9	-	1.3	0.6
ILO unemployment rate (Q4)	5.2^c	5.1	5.1	5.1	5.3
Claimant count (millions) (Q4)	0.79	0.78	0.7	0.77	0.82

Source: HM Treasury Panel of Independent Forecasts (2015d and January 2016), OBR Forecasts (2015c) and LPC estimates based on ONS data: GDP growth (ABMI), total employment as measured by workforce jobs (DYDC) and claimant unemployment (BCJD), quarterly, and AWE total pay (KAB9), monthly, seasonally adjusted; RPI (CZBH) and CPI (D7G7), quarterly, not seasonally adjusted, UK (GB for AWE), 2014-16.

Notes:

- Estimate of economic growth based on latest ONS data and LPC estimates of likely Q4 out-turn.
 - Estimate of average earnings growth based on January-November 2015 compared with the same period a year earlier.
 - OBR forecasts employment levels rather than growth. Growth forecasts shown here reflect the percentage differences between these forecast levels.
- '-' denotes not available.

Implications for the National Living Wage

- 6.108** Turning to the implications for the NLW, the evidence above suggests that economic circumstances are more conducive to a sharp change in the pay floor now than during the recession, or its immediate aftermath.
- 6.109** The main challenge is the scale of the change for low-paid employers and the sustained change over time: the increase in the National Minimum Wage for all those aged 21 and over from £6.50 to £6.70 an hour was 3.1 per cent, higher than the annual growth in average weekly earnings that was recorded in the three months to November 2015 – 2.0 per cent. The introduction of the National Living Wage in April 2016 at £7.20 an hour will be an effective 10.8 per cent increase on the year –above the general growth in average earnings, the current level of pay settlements, and those employers are expecting to award over the next 12 months. Given inflation is currently around zero and (apart from an expected nudge up in February-April 2016) expected to remain low for some time, real wage increases for the lowest paid will be close to the nominal level.
- 6.110** This also comes at a time when businesses are facing other increases in labour costs, such as the further roll out of pension auto-enrolment among small firms, and when additional costs are in the pipeline, such as the introduction of the Apprenticeship Levy in 2017 and increased employer pension contributions in 2018. Further, as the economy has slowed and global risks have increased, business confidence has declined.
- 6.111** On the other hand, jobs growth remains solid and business profitability has improved substantially on a number of measures. Overall, the Bank of England judges that the introduction of the National Living Wage will have a limited aggregate impact – perhaps adding just 0.1 percentage point to average earnings growth. The impact of the introductory rate on wage bills in the aggregate is also unlikely to be large, although the most affected firms will be faced with more significant increases in total labour costs.
- 6.112** The Government has also introduced several measures aimed at mitigating some of those increased business costs, such as increasing the Employment Allowance, removing under 21 year olds from National Insurance contributions, and reducing Corporation Tax. It has also enabled local authorities to increase Council Tax in order to raise revenues to pay for social care.
- 6.113** Early evidence suggests that not many firms have made public decisions about how they will cope with the introduction of the NLW. Employment data suggest some low-paying sectors – domiciliary care, childcare, and retail among others – as well as certain countries and regions – such as Northern Ireland, Wales, the East Midlands and the North East – have had weaker performance and will need continued scrutiny. The impact on small firms will also need to be carefully monitored.
- 6.114** Looking forwards we intend to monitor the impact of the NLW through our traditional methods of: in-house analysis; commissioned research; independent research and analysis; and stakeholder evidence. In the first instance, we will particularly look for evidence of effects on pay settlements; the treatment of those aged under 25, particularly those aged 21-24; the impact on the distribution of earnings, including assessments of coverage and the

extent that differentials have been squeezed; and the extent of the bite across industries, occupations, geographies, and sizes of firm. We will also look to make initial assessments of the impact on jobs; hours worked; and the organisation of work, including changes to contracts and the use of more flexible forms of working. In addition, we will monitor whether firms are attempting to pass costs on to customers in the form of higher prices (or lower quality) or whether profits are being squeezed. The impact on productivity and training, as well as any impact on the entry and exit of firms, will also be investigated.

Implications for the National Minimum Wage

6.115 We noted above that the conditions for faster increases in the NMW look likely to be met in 2016 and 2017. Of course that depends on the economic forecasts being realised. And there are potential risks to this, notably on the downside.

Young Workers

6.116 Chapter 4 and 5 set out the current position of young people in terms of their labour market position and recent performance, with particular regards to employment and wages; and the impact of recent minimum wage increases.

6.117 As we saw in Chapters 4 and 5, young people have higher unemployment but have also experienced stronger pay growth over the last two years and a rapid improvement in labour market performance. Whether these trends continue over the next few years will depend on the prospects for the economy generally and prospects in the two low-paying sectors – retail and hospitality – that account for a large proportion of jobs of young people. Chapters 4 and 5 showed that 35 per cent of 16-17 year olds, 28 per cent of 18-20 year olds, and 16 per cent of 21-24 year olds worked in retail, while 36 per cent of 16-17 year olds, 23 per cent of 18-20 year olds, and 10 per cent of 21-24 year olds worked in hospitality.

6.118 Prospects for increases in consumer spending look broadly positive over the next few years with the OBR forecasting consumer spending growth of 2.6 per cent in 2016 and 2017. Our detailed sector analysis suggested that growth was expected in both retail and hospitality, although the growth and employment prospects looked much better in hospitality.

6.119 However, there are features of the youth labour market that could mean limited wage pressure in the coming months and year: particularly the extent of underemployment compared with older workers. ONS (2014b) analysis of underemployment showed that around one in five workers aged 16-24 were underemployed, more than double the rate of underemployment for those aged 25-34. The occupations with the highest underemployment for 16-24 year olds were sales and retail cashiers, and other elementary service occupations, such as bar staff and waiters and waitresses.

6.120 The impact of minimum wage increases for young people will partly be determined by how their wages make up overall wage bill costs. Although 16-17 year olds account for 1.1 per cent of employee jobs they account for just 0.2 per cent of the total wage bill. Those aged 18-20 account for 3.7 per cent of all employees but 1.4 per cent of the wage bill. Those aged 21-24 account for 7.4 per cent of employees and 4.7 per cent of the total wage bill.

In contrast to those other age groups, those aged 25 and over account for a greater proportion of the wage bill (93.7 per cent) than their share of the employed workforce (87.8 per cent).

Conclusion

- 6.121** Our recommendations on rates for workers under the age of 25 and apprentices in this report, and our recommendation in October 2016 on the level of the NLW, are both influenced by the economic context where we have previously said sustainable increases in the wage floor require growth in GDP, employment, earnings and productivity. Our 2015 recommendations were made in the context of solid growth, exceptionally strong employment growth and somewhat disappointing pay and productivity growth.
- 6.122** On economic growth, there is mixed evidence: the picture is one of continued recovery, albeit with some risks. GDP growth has been revised up for 2013 and 2014 but slowed in 2015 and fell just short of forecasts. Although broadly in line with our expectations, there were some signs of softening in the second half of 2015, and overall performance reflected continued dependence on services and business investment rather than exports. Looking ahead, forecast GDP growth for 2016-17 suggests it will continue at a similar pace – steady but below pre-recession trend. Consumer spending – the key motor in many low-paying sectors – looks set to be sustained by low inflation and real wage growth. Strengthening profitability in larger firms, easing of credit and low oil prices may amplify business investment, though there are also downside risks, mainly from trade, volatility in emerging economies, China, and the Eurozone, and a decline in business confidence.
- 6.123** On labour market performance, the number of jobs grew strongly in 2015. However, unlike in recent years, performance was weaker in low-paying sectors than non low-paying sectors. Growth was strongest in the former in hospitality and leisure and small firms, with weakness in retail, childcare and domiciliary care. Looking ahead, forecasts suggest more modest but solid jobs growth. Hiring intentions remain fairly strong, including in sectors like hotels and restaurants. There has been little evidence of reduced demand resulting from the NLW and other changes to labour costs yet.
- 6.124** On pay, growth remains at about 2-3 per cent overall with – as last year – little sign that the strong jobs performance is translating into wage pressure. On the one hand, there was some strengthening over the course of 2015 with private sector growth above 3 per cent for much of the year. There has been emphasis on forecasts suggesting earnings will pick up to 3.5 per cent in the fourth quarter of 2016 and then to four per cent – pay growth levels not seen since before the recession. On the other hand, Average Weekly Earnings slowed in the second half of 2015 and pay settlements remain at around 2 per cent. Early survey evidence finds little sign so far of the NLW affecting settlements. There is a similar picture on productivity: a modest pick-up in 2015 forecast to accelerate further.
- 6.125** Overall, it is clear that the NLW is a significant increase in pay relative to wider trends in earnings, at a time when firms are facing other costs, and there has been a fall in business confidence. However, output and jobs growth remain solid and business profitability has

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improved on several measures. Consumer spending remains robust and confidence high. The NLW is not expected by the Bank of England to have a major aggregate effect. But impacts may be important in exposed industries – particularly in sectors like domiciliary care, retail and childcare and areas like Northern Ireland, Wales, the Midlands, and the North East.

6.126 Turning to the NMW, as Chapters 4 and 5 showed, young workers have recently seen strong employment and pay growth relative to other workers, though the latter has still been well below NLW levels. The sectors in which they disproportionately work – retail and hospitality – have mixed outlooks, with hospitality more robust.

Chapter 7

The Rates

Introduction

7.1 The meeting to discuss and agree the recommendations set out in this report was held at the end of January 2016. The deliberations were based on data and information available up to 21 January.

7.2 The rates recommendations made by the Low Pay Commission (LPC) in this report have important differences relative to previous years.

- First, where decisions in the past have related to the rates for all workers, the focus of the decisions here is the minimum wage rates for workers aged under 25 and apprentices. The number of workers directly affected is just over 430,000 or 30 per cent of all minimum wage workers in April 2015, a proportion likely to fall to around 20 per cent once the National Living Wage (NLW) is introduced.

- Second, the decision is made in the context of a pre-determined introductory rate for workers aged 25 and over. The NLW is set to be introduced at £7.20 in April 2016, with an ambition for its future value to reach 60 per cent of median earnings by 2020.

- Third, where recommendations in previous years have lasted for a year, the duration of those in this report depends on the outcome of the Government's internal review of aligning the National Minimum Wage (NMW) and the NLW. If alignment occurs in April 2017, we may be asked to recommend the level of the rates for workers under 25 and apprentices for 2017 alongside our view on the NLW in the autumn of 2016. In this scenario, all minimum wage rates including the NLW and the 'other' rates would change in April 2017. The recommendations in this report would have had effect for 6 months.

This bears additionally on this year's remit request to offer indicative 'second year' rates.¹⁶

7.3 In the other chapters of this report we set out the evidence base used in making our recommendations. Chapter 1 investigated and summarised the impact of the adult rate of the NMW to 2015. Chapter 2 considered the likely impact of the introduction of the NLW and its subsequent path to 2020, and Chapter 3 explored how we might make recommendations in relation to it. Most critically for this discussion, Chapters 4 and 5 considered the youth labour market and the impact of the adult rate (for those aged 21-24), the youth rates of the NMW and the Apprentice Rate, while Chapter 6 considered the economic context to our recommendations. Chapter 8 considers the workings of the NMW, including compliance and enforcement.

¹⁶ If the NMW and NLW are aligned in April 2017, the relevant period for indicative rates is April 2018-April 2019; if the NMW and NLW are not aligned, then the relevant period is October 2018 to April or October 2019.

- 7.4** This chapter supplements the findings from these chapters with wider considerations that formed part of our deliberations including stakeholder views and legislative changes.

Stakeholder Views

Adult Rate of the National Minimum Wage (21-24 Year Olds)

- 7.5** There were two key points of discussion in stakeholder responses on the adult rate of the NMW, which in future will only apply to 21-24 year olds: first, the basis of the pay floor for these workers; second, the level implied by the evidence this year.
- 7.6** Employee representative responses overwhelmingly argued against a lower pay floor for 21-24 year olds than workers aged 25 and over and called on the LPC to set the future adult rate at the same level as the NLW. The Welsh and Scottish Governments were also concerned about a gap opening up and differential treatment of young people. The Scottish Government thought this risked devaluing the work of those aged under 25. The Welsh Government questioned the evidential basis for the age structure of the NLW and highlighted risks in relation to the effects in the workplace of a lower minimum wage for 21-24 year olds, and perverse incentives for employers to substitute younger workers for older ones.
- 7.7** Employer representative responses fell into different camps. Some considering the principle argued for the adult rate to be set on the basis of affordability – which meant, in their view, at a lower level than the NLW given the high bite and coverage of the minimum wage for 21-24 year olds. They also emphasised that, notwithstanding recent improvement, the unemployment level for this age group remained at a much higher level than for older workers, with particular risks to their long-term earnings prospects from early spells out of the labour market. These respondents thought a cautious increase would be further justified given uncertainties arising from the introduction of the NLW.
- 7.8** Other employers argued it would be difficult to use a separate rate in practice, and they would not make use of a lower pay floor for 21-24 year olds. In some cases, this was advanced as a further reason why caution was needed on the NLW. A small number argued for the adult rate to follow the path of the NLW.
- 7.9** The TUC response said that while it welcomed the ambition of the 60 per cent target, the UK Government had ‘adopted the highest age threshold in the developed world, matched only by Greece. In contrast, France pays the full rate from age 18 onwards’. It argued that 21-24 year olds should ‘receive the NMW supplement in full’, reflecting strongly improving economic performance. It was very concerned about ‘effectively adding another youth
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- ‘We strongly oppose a separate rate for 21-24 year olds. The key point here is that, while it is true they have higher unemployment and lower pay, their rate of improvement in employment and unemployment is impressive, and is faster than for 25-29 year olds. Their rate of labour market improvement shows they can bear increases in line with the NLW.’*
-
- TUC oral evidence**
-

rate' and that the rate for those aged 25 and over had 'now effectively become the main adult rate'. The risks could include: complexity and non-compliance/low worker awareness; substitution; and tension between workers and perceptions of unfairness. In oral evidence, the TUC elaborated on its concerns: while it was true that 21-24 year olds faced a high bite, this was a structural feature of the youth labour market where average pay was unsurprisingly lower than for older workers. The position of 21-24 year olds had not been a barrier to NMW increases for workers aged 21 and over in the past. In any event, it was unclear that the employment and bite position of 21-24 year olds was unique to that age group. The National Union of Students (NUS), Union of Shop, Distributive and Allied Workers (Usdaw), Unite and UNISON expressed similar views, supporting the application of the NLW to younger workers.

7.10 By contrast, the CBI thought that uprating the adult rate of the NMW or youth rates in line with the NLW would be too risky and could harm the job prospects of the age group. The British Hospitality Association (BHA) argued that applying the likely NLW increases to the other NMW rates would have a damaging effect on youth employment and should be avoided. The Association of Convenience Stores (ACS) argued that smaller retailers made use of the flexibility of being able to pay younger staff less than the full adult rate to offset large increases in employment costs. It was likely the introduction of the NLW would lead to more use of the youth rates.

7.11 Most of the employers asking for differentiation in the level of rates thought it provided an important flexibility. One social care provider said: 'It will definitely make an uncomfortable division by employee's age, but keeping under 25 year olds at the lower wage will be necessary to improve affordability'. In the hairdressing sector, the National Hairdressers Federation (NHF) told us in oral evidence that it regarded it as inconceivable that hairdressers would not make use of a (lower) adult rate. It was reported in the press that several leading retailers do not intend to give the NLW to younger workers (Independent, 2015), and there are already a number of fast food firms that use rates below the adult rate for younger workers. The Association of Labour Providers (ALP) highlighted the possibility that the NLW would affect demand for agency workers including labour providers being asked by clients to provide workers aged under 25. It sought guidance on the law covering this issue from the Government, and in the interim had produced its own advice for ALP members.

'Most firms are aiming to pay the NLW to 21-24 year olds but some will find it unaffordable in 2016 or by 2020. Employment rates for 20-24 year olds are still below those in 2008 and it will be essential to track the impact on retention and employment over time.'

CBI oral evidence

7.12 Other organisations did not express a clear view on differentiation because they thought that a lower rate for 21-24 year olds would be difficult to use in practice. The UK Home Care Association (UKHCA) considered it unlikely that providers would opt to run a two-tier payroll system and, as a consequence, it thought that the impact of the NLW on jobs could be higher than government estimates. A major employer in the hospitality sector advised us that the age 25 threshold was at odds with its philosophy of pay progression and it did not see any

reference point in society that made 25 a useful age at which to demarcate rates of pay. The UK Fashion and Textile Association (UKFT) thought a differential rate was unworkable in practice, though was worried about the level of the NLW. It said it would be a 'practical impossibility' to 'make up' the wages of a skilled 22 year old to £6.70 and their 28 year old colleague on the next machine to £7.20. In agriculture, the National Farmers' Union (NFU) told us during oral evidence that it thought it would be difficult for farmers to pay one part of their workforce a different rate – with 90 per cent of the sector workforce aged 25 and over.

7.13 On the specific question of the level of the adult rate of the NMW for October 2016 there were a range of employer views.

7.14 Some argued for maintaining the current level or at most recommending an inflation only rise. UKFT called for no increase. The ACS similarly proposed no increase or no more than inflation. The NHF called for one per cent. The Federation of Small Businesses (FSB) said that while 'on the face of it, wider economic indicators suggest that further increases in wages can be afforded by small firms' this was not a uniform picture and many small firms could struggle to cope with higher increases. It urged caution and preferred the NMW to rise in line with CPI only. The FSB thought that, if the LPC made a higher recommendation to avoid too large a differential with the NLW, there should be offsetting recommendations to the Government to help employers to absorb these costs.

7.15 Another view was that the rate should rise by the level of increase in pay in the economy. The Food and Drink Federation (FDF) said that the NMW should track the movement in basic rates of pay across the economy over the past 12 months while the Chartered Institute of Personnel and Development (CIPD) suggested the anticipated growth in average earnings. Others called for an increase 'at a similar level to previous years', or 'no higher than 3 per cent'. The British Chambers of Commerce (BCC) was also in this broad range, arguing for 2.4 per cent.

7.16 The CBI thought that the adult rate should be set cautiously. It should not, for example, follow the NLW but be set on the basis of economic evidence. However, a minority of employers thought the adult rate (for 21-24 year olds) should have some relationship with the increase in the NLW. A major hospitality firm concerned about differentiation by age said 'we strongly believe that the NMW should increase at the same rate as the NLW, and that the 50 pence differential [be] maintained for a number of years to facilitate a better understanding of its impact within the age bands of employment'. The BHA argued that the adult rate should increase at half the pace of the NLW. However, the BRC said any decision to harmonise the increases in the NMW and NLW should wait until after the introduction of the latter. It called for the NMW increase not to exceed long-term growth in average earnings – which it said indicated a maximum of 2 per cent.

'Our survey data suggests some businesses may focus their recruitment on the under 25s. However by doing this, they run the risk of potentially breaching age discrimination legislation, which should lead many employers to re-evaluate this stance'.

FSB evidence

- 7.17** By contrast, employee representatives called for higher increases. Unite wanted an increase in the NMW for all workers of £1.50, bringing the adult rate to more than £8. The TUC, GMB and UNISON wanted the LPC to recommend a single rate, although the GMB also mentioned RPI as the basis for an increase with a view to £8. The NUS wanted the adult rate set to the level of the voluntary UK Living Wage. The Prince's Trust charity wanted to align the increases in the adult rate of the NMW and the NLW.

Youth Rates

- 7.18** There were relatively few responses specifically on the youth rates. The CBI argued that youth unemployment was still higher than before the financial crisis, so caution was needed – in particular, there needed to be time for the impact of the 3.3 per cent rise for 18-20 year olds in October 2015 to be reviewed given the high bite for this age group. The BCC recommended 2.0 per cent for the Youth Development Rate and 1.8 per cent for the 16-17 year Old Rate. The NHF suggested 1.0 per cent for the youth rates.
- 7.19** By contrast the TUC thought the youth rates needed to 'increase as rapidly as can be sustained in order to close the gap with older workers as much as possible'. The GMB called for the LPC to recommend starting the adult rate at 18 and, failing that, to increase the 16-17 Year Old and Youth Development Rate by the same amount as the adult rate of the NMW. Usdaw thought the youth rates should rise by the same percentage as the NLW. The Communication Workers Union (CWU) argued for increases above inflation and earnings and ultimately alignment with the UK Living Wage. The NUS argued that the LPC's commissioned research showed the youth rates had little bearing on youth unemployment or educational decisions, so we should recommend abolishing them.

Apprentice Rate

- 7.20** Again, there were relatively few responses on the Apprentice Rate. The CBI urged caution, citing additional pressures affecting apprenticeship supply from three areas: the Apprenticeship Levy; a possible decline in government contributions; and the large 2015 increase in the Apprentice Rate. It warned 'with costs rising so significantly, there is a very real risk that it is no longer viable for employers to offer apprenticeships'. The FSB shared concerns that the 2015 increase in the Apprentice Rate was significant relative to the other NMW increases. While it was too early to say what the effect will be, it thought the LPC needed to pay attention to wider training costs from apprenticeship reforms for smaller firms. The BCC highlighted the interaction of the Apprentice Rate and the NLW – warning of the 'enormous cliff-edge' in wage rates created by the introduction of the latter. The NHF called for a 1 per cent rise only. While the EEF argued that the Apprentice Rate should be abolished, it suggested that – in the absence of this – the Apprenticeship Levy meant the 'LPC may need to act cautiously when setting [it] going forward'.
- 7.21** By contrast the TUC restated its position from the LPC's 2015 review of the structure of the rate, arguing that it should only apply to those doing a Level 2 apprenticeship aged 16-18 or any Year One apprentice aged 19-20. It felt strongly that apprentices aged 25 and over should get the NLW rather than the Apprentice Rate in Year One: 'the prospect of apprentices being paid £3.30 per hour working alongside others on £7.20 opens up an unacceptable potential

for exploitation'. Unite argued that the Apprentice Rate should increase by more than the adult rate. Usdaw thought it should rise in line with the 16-17 Year Old Rate, which in turn should increase by the same percentage as the NLW. UNISON argued that the lower wage rates for apprentices represented an 'injustice' and warned of some apprentices in local government not getting the Apprentice Rate, and substantive posts in the NHS being replaced with apprenticeship-based ones. The Association of Employment and Learning Providers (AELP) felt that the current Apprentice Rate should be phased out and replaced with new arrangements. It warned that 'some providers are already finding that some young people are not prepared to undertake an apprenticeship because of the lower minimum wage, preferring instead to take a job at a higher wage'.

Implications of Other Government Legislation for Employer Costs

7.22 Three major policies on the horizon with relevance for Commissioner deliberations were pensions, the Apprenticeship Levy and the NLW, though the Government's evidence also highlighted reforms reducing costs to employers including the Employment Allowance and Corporation Tax cuts.

National Living Wage, Corporation Tax and Employment Allowance

7.23 As Chapter 2 set out, we estimate that the introduction of the NLW is set to add 0.1 per cent to wage bills, rising to 0.5 per cent by 2020. The costs are in addition to forecast average earnings growth, vary markedly by sector, and are sensitive to the modelling assumptions.

7.24 The annual increase delivered by the NLW of 10.8 per cent is substantial relative to average pay for workers aged 25 and over, which increased at 1.5 per cent in 2015. However, many firms responding to our consultation said £7.20 was manageable, albeit particular sectors were concerned, with social care warning of serious negative consequences.

7.25 In its evidence the Government pointed out, among other savings to business, it is cutting Corporation Tax from 20 per cent to 19 per cent by 2017 and 18 per cent by 2020. It has also increased the Employment Allowance, an effective cut in Employer National Insurance Contributions (NICs), from £2,000 to £3,000 from April 2016. This added to wider NICs reforms: for example, from April 2015, it removed the requirement on employers to pay NICs for workers under the age of 21 up to the Upper Secondary Earnings Threshold.

7.26 The Institute of Directors (IoD) was broadly supportive of the package of NLW changes accompanied by wider savings: 'the Chancellor has offered business a new deal on employment... the IoD and our members accept that deal'. But the BCC argued that 'the majority of the relief will be felt by large, highly profitable firms that traditionally employ few workers on minimum pay, whereas the majority of the cost increase will be felt by small firms or those in particular sectors that employ primarily low-paid and/or part-time workers'.

- 7.27** The CBI pointed out that the Corporation Tax reduction to 19 per cent occurs in 2017, after the NLW is introduced, and only helps firms that are profitable. The NFU said that 95 per cent of businesses in its sector are sole traders or partnerships and would not receive Corporation Tax cuts. Those representing the social care sector similarly pointed out that many care providers, such as those which are charities, would not benefit. A major hospitality firm said a percentage point reduction in Corporation Tax saved it £5m. But this gain was dwarfed by estimated costs from the NLW of £65 million in 2016, as well as auto-enrolment contributions of £8 million.
- 7.28** On the Employment Allowance, the CBI welcomed help with NICs costs but thought it 'will not have a material impact for larger firms'. For firms that benefited, the higher wage costs meant they were treading water: as with the previous £2,000 Employment Allowance, it would offset the NICs of four workers. The ACS said that the Employment Allowance saved less than the higher cost of wages imposed by the NLW, and made little difference to bigger chains of stores. Its modelling showed that the savings ranged between 0.3 per cent and 13 per cent of the NLW cost for convenience stores. Around 14 per cent of convenience stores would save less than the full £1,000 because they were under the upper limit of the existing Employment Allowance.
- 7.29** The Autumn Statement costed Corporation Tax cuts at £600 million in 2017-18 and £1.9 billion in 2019-20, rising to £2.5 billion in 2020-21 (HM Treasury, 2015e). The Employment Allowance is costed at £630 million per year in 2016/17, rising to £695 million by 2020. These compare with our wage bill estimates for increased wage bill costs (£6.70 to £7.20) of £0.7 billion in 2016 and a further £2.4 billion by 2020, both in 2015 prices, though the comparison is not direct since the employers benefitting from the savings only partly overlap with the employers incurring the additional costs.

Apprenticeship Levy

- 7.30** A key regulatory cost identified by businesses during this year's consultation was the Apprenticeship Levy, announced in the Summer Budget 2015, to raise £3 billion to help pay for the extra three million apprenticeships the Government wishes to secure over the course of this Parliament.
- 7.31** The levy, which will come into effect in April 2017, will be set at 0.5 per cent of the employer's pay bill and collected via PAYE. There will be a pay bill allowance of £15,000 which means that employers with a pay bill of less than £3 million will be exempt. Overall, about two per cent of employers will pay the levy, though these account for a high proportion of apprenticeships. The Government is also establishing a new body – the Institute for Apprenticeships – to oversee the quality of apprenticeships within the context of achieving three million starts by 2020.
- 7.32** Together, auto-enrolment and the new Apprenticeship Levy are estimated by the Office for Budget Responsibility (OBR, 2015c) to reduce forecast earnings over the five years to 2020-21 by 0.7 per cent, although it acknowledges that there is significant uncertainty associated with these estimates. On the other hand, the levy may promote training and investment through apprenticeships, with subsequent benefits to productivity.

National Minimum Wage

- 7.33** Employer stakeholders expressed concern regarding the burden of the levy – particularly in combination with the NLW and business rates. In its written evidence the CBI called the levy ‘a huge cost for larger firms’, whilst both the EEF and FSB suggested that the Commission weigh the costs of apprenticeship reforms in future decisions. While the FSB acknowledged that smaller firms were exempt from the levy, it was nevertheless concerned that these firms may still be required to contribute to the cost of training under a separate system. The BRC estimated that business rates, the Apprenticeship Levy and the NLW will cost retailers an extra £14 billion over the next five years (Telegraph, 2015). Simon Walker, director general of the IoD, said: ‘The major business tax announcement of this Autumn Statement was the Apprenticeship Levy, which can only be described as a new payroll tax. At 0.5 per cent of payroll it will be a big new cost for many companies, including medium-sized ones’ (IoD, 2015).
- 7.34** Employer stakeholders were uncertain of the implications of the levy for apprenticeship numbers and pay. On the one hand, some felt it might give a fillip to apprenticeships where firms don’t have them – on the basis that launching programmes would be the only way larger employers could realise value from contributions. It might also reduce the need for a wage discount that has traditionally animated discussions about apprentice pay – on this argument, because the levy is a sunk cost, the expense to employers is not in competition with the wage. However, the CBI argued that, because it only covers some costs – mainly time at college and not supervision, training at work or pay during this time – it would put likely pressure on apprenticeship pay. And because the levy will increase the overall cost of delivering apprenticeships, it would likely have a negative impact on volumes. There was uncertainty in relation to impacts by age, where the LPC has been concerned in the past to ensure it remains attractive to employers to take on younger apprentices.

Pensions

- 7.35** We have commented on the introduction of automatic enrolment to a workplace pension in successive reports and its cost implications for both workers and employers. The main development for this year is that the staged implementation of the policy fully covers small firms by April 2017 (those with fewer than 50 employees, who began staging in June 2015), albeit increasing contributions have been moved back six months to April 2018 to align with the tax year.
- 7.36** Under the reforms, employers are required to enrol all eligible workers into a qualifying pension scheme. Eligible workers are those aged 22 and over and below the State Pension Age, who earn above £10,000 a year and who work in the UK. Contributions are based on qualifying earnings which are currently aligned with the National Insurance contribution lower (LEL) and upper earnings limits (UEL). In 2015/16 the LEL is £5,824 and the UEL is £42,385.
- 7.37** Increases in the minimum contribution rates are also being phased in. Initially, the minimum contribution is 2 per cent of the relevant earnings, with a minimum of 1 per cent from the employer. This will increase in April 2018 (moved back 6 months from October 2017) to a total minimum contribution of 5 per cent (of which a minimum of 2 per cent must come from the employer). From April 2019 (revised from October 2018) the total minimum contribution will be 8 per cent (of which a minimum of 3 per cent must come from the employer).

- 7.38** As our analysis has previously shown, pension costs are an undoubted pressure on firms, and the profile of the increasing contributions will bear upon future NLW deliberations. Opt-out figures have been lower than the 28 per cent originally anticipated, with recent data from the Department for Work and Pensions (DWP) indicating a figure of 10 per cent to date. It expects 15 per cent of automatically enrolled workers to opt-out over the lifetime of the policy.
- 7.39** However, implications for the minimum wage are mitigated by the fact that the majority of NMW workers earn too little to reach the £10,000 threshold so are out of scope. At the £6.70 rate applicable to all workers aged over 21 until April 2016, minimum wage workers have to work at least 29 hours per week to qualify, whereas many are part-time. By comparison, workers aged 25 and over will need to work 27 hours (at £7.20) to reach the threshold so a greater proportion will become eligible assuming no change in hours.
- 7.40** Using the latest opt-out and eligibility data from DWP, revised pension costs for 2015/16, based on the October 2015 NMW uprating to £6.70, were estimated at 0.3 per cent for small firms, 0.2 per cent for micro and medium-sized firms and under 0.1 per cent for large firms (the majority of eligible employees having been automatically enrolled previously).
- 7.41** Stakeholders again raised concerns for this report about the impact. Smaller firms were concerned about the administrative burdens of set-up, and ongoing costs. For bigger firms the interaction with the Apprenticeship Levy was a new consideration.
- 7.42** The CBI said that while it supported this reform, it was a significant cost whose impact needed monitoring, especially for low-paying sectors and smaller firms. The FSB similarly referred to the impact of pension auto-enrolment on small and micro businesses. The ACS highlighted wage bill and administration costs.
- 7.43** It is clear from what we have seen that automatic enrolment will have an impact on firms, including in relation to increased non-wage costs, start-up costs, administration, legal advice and communications requirements. On the other hand, the staging of contributions means that the biggest costs are back-loaded and the current threshold means that many NMW workers are not directly affected. We will continue to monitor the reforms next year and beyond as more data become available.

Employer National Insurance Contributions Cuts for Younger Workers

- 7.44** The Government removed employer National Insurance contributions (NICs) for workers aged under 21 from April 2015, and for apprentices aged under 25 from April 2016. The change for workers aged under 21 was one factor last year underpinning our rate decision on 18-20 year olds workers which we thought would be likely modestly to reduce costs for about two-fifths of the age group on the minimum wage. By contrast, the reduction in National Insurance for apprentices had only a limited bearing on our decisions because it mainly relates to better-paid apprentices. For NICs to be due, a worker needs to be earning £153 per week. The current Apprentice Rate of £3.30 is £125.40 at 38 hours. So lower NICs have no impact on costs of NMW apprentices in Year One – the majority of the group.

Business Rates and Changes to Statutory Sick Pay Arrangements

7.45 Other costs highlighted by employers included business rates and changes to statutory sick pay. Concern about the former was particularly concentrated among hospitality and retail employers, though employers also noted that the Government is currently carrying out a review. The BRC told us that the retail sector paid the largest proportion of business rates in the UK (29 per cent) and that business rates had increased at an average rate of 3.2 per cent a year in the period 2007-2013. Concern about the changes to statutory sick pay related to the abolition of the scheme under which firms could recover sick pay costs from the Government. The ACS highlighted this change, reporting that 54 per cent of respondents in a survey of its members would like to see government-funded statutory sick pay re-introduced to mitigate the impact of the NLW.

Recommended Rates

7.46 Deliberations this year focused on the outlook for the economy and the labour market, as well as the implications of the NLW for the pay and employment of workers aged under 25 and apprentices. The key considerations informing discussions included that:

- Our objective for these workers – including for the 21-24 year old cohort effectively created as a new age band by the introduction of the NLW – remained our traditional one of recommending a rate set as high as possible without reducing employment.
- This was different from our goal in relation to the NLW, the age structure of which reflects the view that older workers can bear a higher pay floor than younger workers, and whose assumptions on introduction include some (relatively modest) loss of jobs and hours. Our role here includes monitoring the degree to which these are borne out, and advising on the path to the 2020 target.
- Labour market evidence remained our key test of what was affordable. As we have set out in past reports, sustainable increases in minimum wage rates depend on economic growth, employment growth, and pay and productivity growth.
- However, the NLW had a bearing on our approach for workers aged under 25 because it affects both absolute and relative employment costs. On the one hand, higher pay bills for businesses resulting from the NLW could reduce demand for younger staff if employers respond by replacing workers with machinery or ‘designing out’ jobs: this might argue for lower minimum wage increases for younger workers. On the other hand, higher pay for older workers lowers the relative cost of younger workers. The shelter provided by the NLW might mean pay for those aged under 25 could be higher than it otherwise would be. Conversely, if pay failed to keep up for younger workers, employers might be encouraged to vary pay by age more, substituting younger workers for older ones, and avoiding hiring or replacing those near the threshold. Commissioners noted that at this stage there could be little or no evidence on the balance between these considerations.

- The macroeconomic context provided reasons both for optimism and for caution. While growth remains stable and recovery is further established than last year, with improving consumer confidence, GDP growth had slowed somewhat, there were clear risks from China and the Eurozone, and business confidence had fallen. However, the labour market had continued to perform well, with robust employment growth in low-paying sectors, although it was now slower than in other sectors and there had been reduced employment in retail, childcare and domiciliary care. On pay, there was strong growth in the first half of 2015 and forecasts for 2016 suggest continued wage recovery. But Average Weekly Earnings weakened sharply in the second half of 2015 into 2016, while pay settlements remained at around 2 per cent.
- The duration of our recommendations had not been finalised at the point Commissioners met to agree them. Depending on the outcome of the Government's review of alignment of the NLW and NMW, the LPC may be asked to make further recommendations in autumn 2016 to apply from April 2017 – those in this report would only have lasted 6 months. If so, we will take this into account in making our next recommendations, which will likely be somewhat lower than they otherwise would have been.

Adult Rate

- 7.47** Stakeholders took different views in our consultation on how to approach this rate – which has new prominence given it now only applies directly to 21-24 year olds. Some urged an ambitious recommendation on grounds of fairness and to avoid the employment relations and possible legal risks if a low level encouraged firms to differentiate pay more for those aged under 25. Others called for a cautious recommendation to reflect costs to employers of the NLW, provide flexibility, and protect employment levels.
- 7.48** In reaching a view we noted data suggesting that unemployment rates for 21-24 year olds not in full-time education are twice as high as those for 25-30 year olds and the bite for 21-24 year olds is already higher than for any other age group, with the minimum wage now 79 per cent of median earnings. A wage floor set at the level of the NLW, or very close to it, would mean an extremely high level of coverage and bite. Any risks to employment could fall particularly on 21 year old workers who have the lowest pay and highest bite of the 21-24 year old cohort.
- 7.49** Equally, it was also clear that 21-24 year olds have seen rapid improvement in unemployment and employment rates, which have almost recovered to pre-recession levels. Pay grew by 3.2 per cent for 21-24 year olds between 2014 and 2015 – twice as fast as the rate for workers aged 25 and over. This suggested scope to bear significant increases, also reducing risks of substitution and threshold effects.
- 7.50** Balancing these considerations, **we recommend that the adult rate of the NMW (21-24 year olds) should increase by 3.7 per cent to £6.95 an hour from 1 October 2016.** This is above forecast inflation and broadly in line with earnings forecasts (which may themselves be on the high side). So it is likely to mean an increase in the relative and real value of the NMW for this age group. Reflecting low inflation, it is set to restore the value of the adult rate in real terms measured against CPI, surpassing its previous peak in 2007.

National Minimum Wage

7.51 This recommendation is made against the backdrop of mixed evidence on the economic outlook. The core contention of evidence from the Government and others, reflected in economic and pay forecasts, was that 2016 and 2017 were likely to be years of good growth in the economy and employment, with a further recovery in the rate of pay increases to levels not seen persistently since before the recession. Our recommendations are set in this context. We note, however, a number of downside risks to growth, employment, and pay in lower-paying sectors over coming months, and a general softening of expectations. Should economic and pay performance prove weaker than anticipated, we will take this into account in future recommendations.

The Youth Development Rate (YDR) and the 16-17 Year Old Rate

7.52 In recent years we have generally recommended smaller increases for workers aged under 21 than for older workers because their labour market position has been worse and the damaging consequences of unemployment more serious. However, we also said that we expected to be able to recommend larger increases when conditions recovered.

7.53 Last year we were able to begin improving the relative position of 18-20 year old workers compared with other workers in recognition of encouraging wage and employment growth, recommending a higher percentage increase in their pay floor than for workers aged 21 and over. We were more cautious for 16-17 year olds, whose wages were growing less strongly and general recovery weaker.

7.54 This year the labour market position of 18-20 year olds has improved further, including sharply falling unemployment. Median pay growth was strong for a third successive year at 2.9 per cent, and the bite fell. The position of 16-17 year olds has also strengthened significantly, though still lags that of 18-20 year olds.

7.55 In view of the strength and duration of the labour market improvement of 18-20 year olds we recommend a further step in recovering their position. **We recommend an increase in the Youth Development Rate of 4.7 per cent to £5.55 an hour from 1 October 2016.** The 25 pence cash increase is the same as for 21-24 year olds. **For 16-17 year olds, we recommend an increase in the minimum wage of 3.4 per cent to £4.00 an hour from 1 October 2016.**

Apprentice Rate

7.56 In successive years we have sought to recommend a level for the Apprentice Rate that protects workers from exploitation while encouraging the supply of places overall (and particularly provision of places for younger workers, whose relative share has fallen over time). These goals have been reflected in a recommended level for the Apprentice Rate set at a discount to the 16-17 Year Old Rate to recognise the costs to employers of providing training and supervision.

7.57 Last year we recommended a cautious increase in the Apprentice Rate in light of evidence of falling starts and continued high non-compliance. The Government subsequently implemented a 21 per cent increase in order to improve the attractiveness of apprenticeships

to prospective applicants. It is also introducing wider policies with the potential to affect employer demand including the Apprenticeship Levy.

- 7.58** No Apprentice Pay Survey took place in 2015 and, in combination with the timing of policy changes, there is little new evidence to assess the impact of these developments. Growth in starts has recovered, but mainly comes from workers aged 25 and over, who have limited exposure to the new higher pay floor. Pay growth for minimum wage apprentices is strong in ASHE, but we have concerns about its reliability as a source for this cohort. In view of the limited evidence available, **we recommend the Apprentice Rate should be increased by 3 per cent, to £3.40 an hour from 1 October 2016.** This increases its relative and real value broadly in line with expected pay growth elsewhere in the economy, pending further data becoming available on the effects of the last year's sharp increase and other changes in policy.

Accommodation Offset

- 7.59** We conducted a review of the accommodation offset in 2013. As a result we said that we would stage increases towards the adult rate when economic circumstances meant that the real value of the NMW is tending to rise – with the aim of ensuring provision of higher quality accommodation by employers. As indicated above, we are recommending an increase in the adult rate that should deliver a further increase in its real value. In recognition that the offset needs to increase significantly if timely progress is to be made towards the adult rate, **we recommend that the accommodation offset be increased by 65 pence to £6.00 a day from 1 October 2016.**

Indicative Rates

- 7.60** We have been asked this year to provide indicative second year rates – a provisional number not just for the coming year but for the following year in order to provide businesses with certainty. This has the potential to help firms adjust to the minimum wage through assisting long-range planning, factors highlighted by organisations like the FSB. On the other hand organisations, including the CBI and the BCC, have previously warned of risks in relation to flexibility and accuracy: by definition, indicative rates cannot be based on timely data, and may create expectations about the level of the NMW from which it is subsequently difficult to depart even if economic circumstances change.
- 7.61** Because it is subject to a target, the introduction of the NLW is likely to enable us to give an indication of the future path for this part of the minimum wage. As we set out in Chapter 3, on current (November 2015) forecasts, the 'on target' level for April 2017 is £7.64, though the exact figure we recommend this October is subject to two important caveats. It will change, first, in light of revisions to earnings forecasts in March and November and new ASHE data in the autumn, which provide the baseline for working out the trajectory to 2020, and second, if there were strong early evidence of effects prompting us to agree a variation in the path.
- 7.62** To provide similar guidance is less straightforward for the other rates. A practical constraint for this report is uncertainty regarding the period for which indicative rates would apply.

National Minimum Wage

- 7.63** A more profound constraint is the lack of an analytical basis for indicative rates for younger workers: there are no age-specific pay forecasts, and young workers' labour market prospects are more sensitive to economic change. Changes in average earnings have in recent years been misleading as a guide to trends for younger workers, whose pay is much more volatile. For example, between 2006 and 2009, year-on-year median earnings growth ranged from 1.7 per cent to 5.1 per cent for 18-20 year olds compared with a range of 3.6-4.0 per cent for all workers. Firms relying on them would have based decisions on spurious certainty.
- 7.64** The NLW is set to cover around four in five workers on the minimum wage from April 2016 onwards, a proportion expected to grow towards 2020. In light of the framework this provides, and the challenge of providing meaningful equivalents for younger workers, we believe specific numbers are likely to be misleading for the other rates. We can however provide an indication of the general direction of travel for the youth rates, including the broader principles on which they should be based.

Future Principles and Direction of Travel

- 7.65** As noted above, a key consideration this year – and likely to inform future years – is that in creating the NLW the Government accepted explicitly that there could be some consequences for employment. This is not the case for the NMW or the other youth rates.
- 7.66** In addition, as noted above, the evidence suggests there are genuine differences in labour market performance that mean the pay floor for workers aged 21-24 cannot currently be set at the same level as the NLW for workers aged 25 and over without risk to employment. These include the higher bite and unemployment levels, although we also note faster pay growth. In the absence of changes in relative performance, the pay floor for younger workers may increase less rapidly than that of workers aged 25 and over towards 2020.
- 7.67** Equally, there are countervailing concerns that will also play an important role in our recommendations: namely that if too large a gap opens between the pay floor for different ages, there will be disincentives to hire or retain employees near the boundary and substitution by younger workers will be encouraged.
- 7.68** As this year, we will balance these considerations in future recommendations.

Implications of the Recommended Rates

- 7.69** In assessing the likely impact of our minimum wage rate recommendations, we have looked at likely changes to the bite, coverage (the number of workers who will directly benefit from the recommended rates) and household income. We also consider the likely impact on wage bills and the Exchequer.

Position Relative to Average Earnings

- 7.70** As noted throughout this report, the bite of the minimum wage is one way of assessing the impact of the minimum wage on the earnings distribution. A higher bite means that workers are more likely to be affected by the NMW with employers having a more compressed earnings distribution at the lower end. Table 7.1 shows the bite for 21-24 year old workers was 78.7 per cent in 2015 – based on a comparison of ASHE median gross hourly earnings (excluding overtime) of employees in this age group (full and part-time) of £8.26 an hour and the adult rate of the NMW at £6.50 an hour. In order to compare this figure with the bite for the recommended adult rate (for 21-24 year olds) from October 2016, we need to forecast how earnings are likely to change between April 2015 and April 2017.
- 7.71** We use two main forecasts to do this. First, the OBR's forecasts for hourly earnings growth for the required period from the second quarter of 2015 to the second quarter of 2016 (3.5 per cent) and from the second quarter of 2016 to the second quarter of 2017 (3.8 per cent). Second, the HM Treasury Panel of Independent Forecasts, which estimate average wage growth of 3.2 per cent for the whole of 2016. We have adjusted the latter to account for actual wage growth between April and October 2015 in order to make comparisons from April 2015 to April 2017. This leads to projected wage growth of 2.4 per cent for the year to April 2016 and 3.2 per cent for the year to April 2017. Table 7.1 summarises the bite estimates based on these assumptions. It should be noted that Average Weekly Earnings dipped in the second half of 2015 and forecasts may prove to be on the high side. If so, our results for the impact on bite and coverage will be underestimates.
- 7.72** Our calculations suggest that, as a result of the increase in the NMW to £6.70 an hour following our 2015 Report recommendations, the bite of the adult rate of the NMW at the median for 21-24 year old workers will effectively remain flat based on the OBR forecast – nudging down from 78.7 per cent to 78.4 per cent in April 2016. As a result of the increase to £6.95, the bite will increase to 78.3 per cent in April 2017. By contrast, using the median of the HM Treasury Panel of Independent Forecasts, we estimate that the bite will increase to 79.2 per cent in April 2016 and then to 79.8 per cent in April 2017.
- 7.73** As well as considering the bite at the median, we can also look at the bite at the mean. The mean of hourly earnings in April 2015 was £9.64 for those aged 21-24 and the bite was 67.4 per cent. We estimate that it will be between 67.1-67.9 per cent in April 2016 and 67.1-68.2 per cent in April 2017 depending on the forecast used.

Table 7.1: Estimated Bite of the Recommended National Minimum Wage, UK, 2015-2017

April each year	LPC estimate based on ASHE		LPC estimate based on OBR forecasts				LPC estimate based on HM Treasury Panel forecasts			
	2015		2016		2017		2016		2017	
Median	£ per hour	Bite (£6.50)	£ per hour	Bite (£6.70)	£ per hour	Bite (£6.95)	£ per hour	Bite (£6.70)	£ per hour	Bite (£6.95)
21-24 (excluding Year One Apprentices)	8.26	78.7	8.55	78.4	8.88	78.3	8.46	79.2	8.73	79.6
21-24	8.24	78.9	8.53	78.5	8.85	78.5	8.44	79.4	8.71	79.8
Mean	£ per hour	Bite (£6.50)	£ per hour	Bite (£6.70)	£ per hour	Bite (£6.95)	£ per hour	Bite (£6.70)	£ per hour	Bite (£6.95)
21-24 (excluding Year One Apprentices)	9.64	67.4	9.98	67.1	10.36	67.1	9.87	67.9	10.19	68.2
21-24	9.62	67.6	9.96	67.3	10.34	67.2	9.85	67.7	10.17	68.3

Source: LPC estimates based on ASHE, 2010 Methodology, low-pay weights, including those not on adult rates of pay but excluding year one apprentices, UK, April, 2015; OBR average hourly earnings index, November 2015; HM Treasury Panel of Independent Forecasts, median, monthly, January 2016, ONS, AWE total pay (KAB9), monthly, seasonally adjusted, GB, CPI (D7BT), quarterly, non-seasonally adjusted, UK.

7.74 Both the October 2015 increase and the recommended increase for the Youth Development Rate (YDR) are higher than those for the adult rate, but both increases in the 16-17 Year Old Rate are lower than those in the adult rate over the same period. Forecasts of young people’s earnings are not separately available, and they have not followed the same path as those of adults in recent years. Pay growth for 16-17 year olds was weaker than for adults over the period 2007-2015, whereas pay growth was stronger for 18-20 year olds than adults between 2011 and 2015. Assuming earnings growth for young people turns out in a similar vein – slightly stronger than those forecast by the OBR forecast for 18-20 year olds but weaker for 16-17 year olds – we would expect the bite for 18-20 year olds to fall in April 2016, but to be maintained or increase in April 2017. By contrast, we would expect the bite for 16-17 year olds to be roughly maintained from April 2015. Using the median of the HM Treasury Panel of Independent Forecasts, we estimate that the bites for both age groups will increase from April 2015.

Coverage

7.75 Another way of looking at the impact of the NMW is to assess the number of people who will be directly affected by the minimum wage upratings. This is sensitive to when in the year it is measured, and to pay forecasts.

7.76 Table 7.2 sets out our coverage estimates using the median of the HM Treasury Panel of Independent Forecasts (2.4 per cent between April 2015 and April 2016 and 3.2 per cent between April 2016 and April 2017). We estimate the number of 21-24 year olds covered by the adult rate of the NMW will be 245,000 (12.3 per cent) in April 2016, increasing to 269,000 (13.6 per cent) in April 2017. This compares with around 248,000 or 12.5 per cent in April 2015, and around 227,000 (11.9 per cent) in April 2011 after 21 year olds became eligible for the adult rate of the NMW. The new rate may lead to slightly higher coverage for this age group.

Table 7.2: Estimated Number and Percentage of Jobs Covered by the Recommended National Minimum Wage Rates, UK, 2016-2017

Age/group	April 2016			April 2017		
	Rate	Coverage		Rate	Coverage	
		000s	%		000s	%
21-24	£6.70	245	12.3	£6.95	269	13.6
18-20	£5.30	126	12.6	£5.55	134	13.4
16-17	£3.87	28	9.8	£4.00	28	9.8
Apprentices	£3.30	51	25.8	£3.40	51	25.8

Source: LPC estimates based on ASHE, 2010 Methodology, low-pay weights, including those not on adult rates of pay, UK, April, 2015; HM Treasury Panel of Independent Forecasts, median, monthly, January 2015, ONS, AWE total pay (KAB9), monthly, seasonally adjusted, GB, CPI (D7BT), quarterly, non-seasonally adjusted, UK.

Notes:

- a. It is assumed that coverage for 16-17 year olds excluding all apprentices will be similar to that in 2015, as it is not possible to estimate this using the methodology adopted here.
- b. Analysis of 21-24 and 18-20 year olds excludes Year One apprentices.

- 7.77** It should be noted that, as well as being sensitive to factors mentioned previously, coverage might also be affected by the NMW rates being recommended at a round number this year. Fry and Ritchie (2012a and 2012b) and Ritchie and Whittard (2014) suggested that employers, particularly those in small firms, tend to use focal points or round numbers to set wages.
- 7.78** The recommended increase in the YDR (4.7 per cent) is higher than that for the adult rate for 21-24 year olds (3.7 per cent). Using the same coverage methodology adopted for adults and using the median of the HM Treasury Panel of Independent Forecasts, we estimate that around 134,000 (13.4 per cent of the age group) jobs held by 18-20 year olds will be covered by the new YDR (£5.55) in April 2017.
- 7.79** Our recommendation for the increase in the 16-17 Year Old Rate (3.4 per cent) in October 2016 was below those for the adult rate and the YDR. Using the same methodology to estimate coverage for 16-17 year olds in April 2016 and in April 2017 does not yield sensible estimates as the wage forecasts are higher than our recommendations. However, we judge it is likely that coverage will turn out to be similar to that in April 2015. It is also possible that coverage could increase, as employers may continue to make increased use of the youth rates (as they have generally done since the onset of recession in 2008, though not over the past year) and this would also affect coverage.
- 7.80** Overall, the total number of jobs that will be affected by the October 2016 rates in April 2017, including workers aged 16-24, but excluding those apprentices not eligible for these rates, is estimated to be about 432,000 (13.2 per cent) if the wages of the low-paid increase in line with these forecasts. This compares with 402,000 (12.3 per cent) in the same age groups paid at or below their age-applicable NMW rates in April 2015. The numbers will be higher if earnings forecasts turn out to have been too optimistic.

Impact on Personal Tax Allowance and Household Income

- 7.81** The Government has pledged to raise the personal tax allowance such that no minimum wage worker working 30 hours or fewer at the adult rate of the NMW pays income tax. This will be a legal requirement once the personal allowance reaches £12,500. Ahead of this, the Government will be subject to a duty to consider the impact on an individual working 30 hours a week on the NMW and report at each fiscal event. In support of this, the Government plans to increase the income tax personal allowance from £10,600 in 2015-16 to £11,000 in 2016-17. It will increase to £11,200 from 2017-18. On this basis, the recommended increase in the adult rate for October 2016 has no implications for the personal tax allowance. For those working 30 hours a week, gross annual earnings will rise from £10,480 in October 2015 (based on £6.70 an hour) to £10,871 in October 2016 (based on £6.95 an hour), thus remaining below the threshold.
- 7.82** By contrast, workers working 30 hours on the National Living Wage will have gross annual earnings of £11,232 and will be liable for tax on £232. Full-time minimum wage workers working 38 hours a week at the adult rate of the NMW will however be subject to income tax on some of their earnings. In addition, some of those working 30 hours or fewer will still be subject to National Insurance contributions.
- 7.83** Looking at household income for 21-24 year olds, the October 2015 rate of £6.70 gives gross weekly earnings of £201.00 for a 30-hour week. Using HM Treasury estimates for the 2015/16 tax year, these gross earnings were equivalent to a net weekly income of £195.48 for a single person working full-time with no children (a net wage of £6.52 an hour). The corresponding amount for a married couple with one child (one partner working and the other not) was around £339.58, equivalent to a net wage of £11.32 an hour.
- 7.84** Based on the HM Treasury projection of net income for 2016/17, at £6.95 an hour in October 2016, gross weekly earnings will increase by £7.50 to £208.50 to reach an annual wage of £10,871 in the year to October 2017. Taking into account the minimum wage uprating and changes in the benefits system in the 2016/17 tax year, the net weekly income for a single person will increase by £6.60 to £202.08. For a married couple with one child, weekly net income will increase by £3.52 to reach £343.11 in the 2016/17 tax year. The effective hourly rate for a single worker will be £6.74 (22 pence higher than in October 2015), and for a family with one child will be £11.44 (12 pence higher than in October 2015). Those net increases compare with a gross increase of 25 pence an hour.

Exchequer Impact

- 7.85** In 2014, as part of the evidence provided by the Government to the Low Pay Commission, HM Treasury (2014a) provided us with a dynamic analysis of the overall fiscal impact of increasing the NMW, including the wider effects. This analysis concluded that there were no significant fiscal gains once dynamic impacts are taken into account. On this basis, we should expect a neutral fiscal impact from increasing the NMW, given the size of our recommended increase and the age groups affected (workers aged under 25).

Conclusion

7.86 Our recommended rates for the National Minimum Wage reflect a careful assessment of the outlook for younger workers, the economy and the labour market. The economy has continued to perform well in 2015, with solid employment growth and some signs of improved wage growth, although also downside risks. While workers aged under 25 continue to have lower pay, a higher bite and higher unemployment than older workers, their relative position has strengthened thanks to faster pay growth and sharper falls in unemployment. Against this backdrop, the introduction of the NLW is set to have an uncertain effect – potentially making younger minimum wage workers relatively more attractive to hire, even as it raises the absolute cost of lower-paid workers as a whole. After reviewing a wide range of evidence we have made recommendations we believe are appropriate to a recovering economy and the wider policy landscape. In the next chapter we consider the outlook for the operation of the minimum wage, including enforcement and compliance.

Chapter 8

Compliance and Operation of the National Minimum Wage

Introduction

8.1 This chapter looks at how the rules and arrangements for payment of the National Minimum Wage (NMW) have operated in practice and considers to what extent the ‘compliance challenge’ – ensuring that every worker receives at least their NMW entitlement – is currently being met. It also considers the impact of one of the biggest changes for low-paid workers and their employers since the NMW began – the introduction of the National Living Wage (NLW).

The Compliance Challenge: Its Nature and Extent

Nature of the Challenge and the National Living Wage

8.2 NMW compliance matters. It matters to employers, because the compliant employer does not want to be undercut by the unscrupulous employer flouting the law. It matters to workers because they need to be assured of their promised level of wage protection. It also matters to the Low Pay Commission, because there would be scant point to our work if the NMW was not the wage floor for the UK labour market in practice as well as in statute.

8.3 However, ensuring that everyone entitled to the NMW receives the right level of pay is not straightforward. It requires, among other things: widespread awareness of the NMW rates, and changes to them; knowledge of the detailed rules for payment of the NMW, which are workable in practice; comprehensive, accessible and well-written guidance; easily available and helpful advice; effective mechanisms for reporting non-payment of the NMW; a suite of effective sanctions against those who breach the rules; and an enforcement regime that is responsive to emerging trends in non-compliance, targets resources on the worst breaches, and resolves claims of non-compliance in a timely manner.

8.4 The focus of this chapter is how existing arrangements measure up against these requirements. The past year has seen strong progress in the compliance and enforcement regime including welcome extra funding and a large increase in the level of arrears of NMW pay identified for workers by HMRC (which enforces the NMW). This is a substantial achievement. Nevertheless, there are areas where there remains room for improvement, and we suggest that further action is required.

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8.5 A key long-standing limitation is lack of evidence enabling Government and others to know when the aim of the Compliance Strategy has been fulfilled – that everyone entitled to the NMW should receive it. As we outline below, there is no definitive or agreed measure of the current level of NMW non-compliance. Better understanding of the real nature and extent of non-compliance is critical to improve targeting of actions to raise awareness and enforce the wage.

8.6 A new risk to minimum wage compliance is the introduction of the NLW in April 2016. The LPC is clear that, from a compliance and enforcement perspective, the NLW is in the long-term a potential game changer, tripling coverage from 5 per cent of employees now to around 15 per cent by 2020. Areas with possible implications for non-compliance include:

- the higher value: as we discuss below, there is no necessary relationship between a higher minimum wage and higher non-compliance. However, the evidence set out in Chapter 2 showed the NLW presents a significant change for some sectors, and non-compliance remains one possible response. Our consultation suggested that the key sectors most concerned about the April 2016 NLW introductory rate of £7.20 include social care, small retail, small firms, textiles and agriculture;
- complexity: through increasing from 4 to 5 the number of rates, with a new structure that differs from many employers' existing practices on age;
- timing: the NLW changes in April, not October like the minimum wage previously. For 2016 at least it means two different dates for minimum wage upratings varying by age of worker. The possible risks of pay not being adjusted and therefore higher non-compliance arise at both points;
- the name: if employers misunderstood the NLW and thought it voluntary, like the (non-statutory) UK and London Living Wages;
- new sectors and employers: the higher coverage and value means the wage floor will become a more significant issue in sectors previously little covered by the minimum wage, like security and call centres, and for some new employers in existing sectors;
- the interaction between the different rates: existing non-compliance problems with apprentice pay may be amplified by the sharp change in rates for those starting an apprenticeship aged 24 and over when after a year they move from the Apprentice Rate (£3.30) to the NLW (£7.20). Some stakeholders have also warned of risks of apprentice status being used as a loophole to keep down costs of workers aged 25 and over – for example by being classified as apprentices, but without the associated training; and
- a slightly reduced notice period for changes in the rates: previously the notice period has run March to October, whereas in future it may be from near the Autumn Statement (around late November) to April.

8.7 The Government has taken welcome steps to mitigate some of these risks, including through a NLW information campaign. Such efforts were important during the introduction of the NMW where fears of high levels of non-compliance were not borne out. While the LPC's Third Report (LPC, 2001a and 2001b) for example found specific areas of concern like social

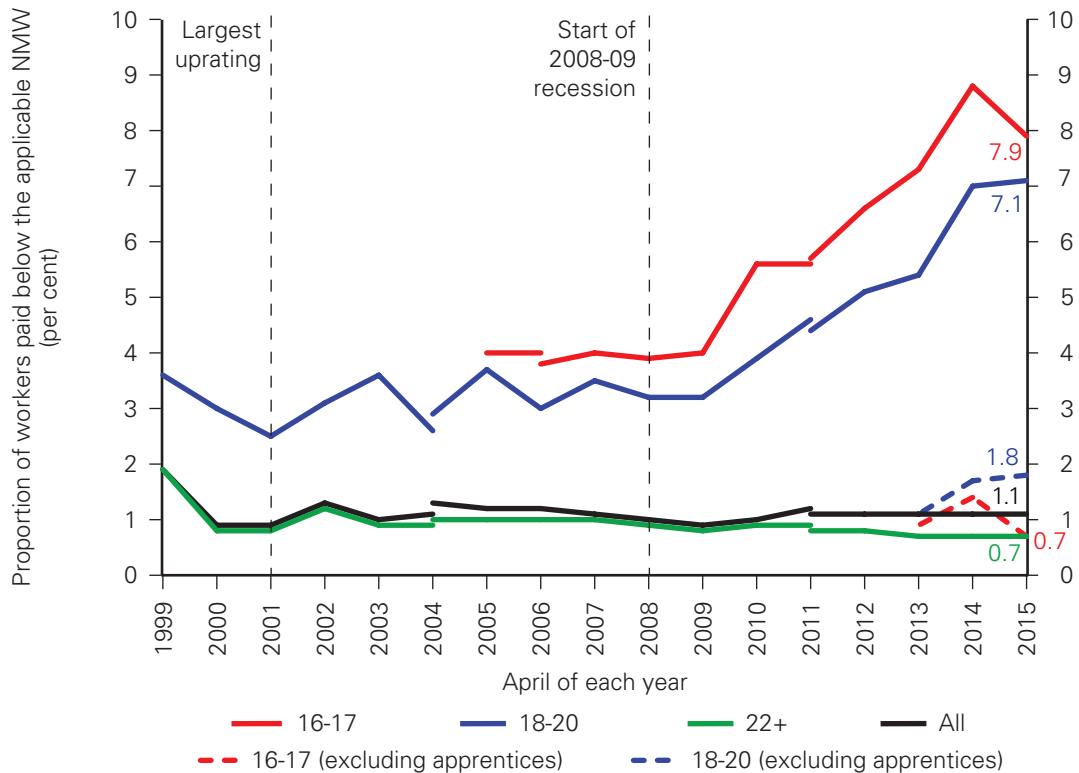
care, homeworkers, underpayment for some ethnic minorities and occasional collusion between employers and employees, the overall picture was encouraging.

- 8.8** Efforts this time round face a further challenge – one arising from measurement issues related to the timing of the NLW cycle. The change to April for the anniversary date for the NLW could mean measured payment below £7.20 an hour rising in 2016, even if risks are managed successfully and actual underpayment does not occur. This is because the key earnings data – the Annual Survey of Hours and Earnings (ASHE) – will be collected at the same time as the wage rise takes place. While checking by the Office for National Statistics (ONS) as it gathers the data may limit this impact, a similar issue with the Apprentice Pay Survey in 2012 meant that recorded underpayment levels were roughly double those found in the better designed 2014 survey.
- 8.9** Against this backdrop, a potentially helpful development, but one whose benefits depend on the detail of implementation, is the introduction of the proposed Director of Labour Market Enforcement and their related objectives. The Government has also announced plans to introduce a new offence of aggravated breach of labour market legislation, and provide the Gangmasters Licensing Authority (GLA) with additional investigatory powers and a wider remit to tackle serious labour exploitation more effectively (BIS and Home Office, 2015 and 2016).
- 8.10** In principle, a more joined-up approach between different agencies involved in labour market enforcement is welcome, and has the potential to fill some long-standing gaps. Equally, at a time when demand for basic minimum wage enforcement may grow, it is vital that the Government continues fully to fund efforts to tackle high volume, less harmful non-compliance, as well as addressing more exploitative situations. The Government has always argued that the overwhelming majority of NMW non-compliance is made up of inadvertent and/or accidental mistakes. The new Director could bring about better co-ordination of the existing enforcement bodies, allow more data sharing, and facilitate a single view of risk – provided the role has proper authority and accountability, and avoids duplication or conflict with other senior roles within the relevant bodies.
- 8.11** We see particular value in the central intelligence hub – which has the potential to be an important step in helping to address the puzzle of exactly how widespread NMW non-compliance actually is. As the next section discusses, there is no overall agreed measurement, either for the UK or within the specific sectors where we suspect there is a higher incidence of NMW non-compliance.

Measuring the Nature and Extent of Non-compliance

- 8.12** It continues to be very difficult to obtain an accurate measure of NMW non-compliance. Estimates based on ASHE in April 2015 show about 1.1 per cent of all employee jobs held by those aged 16 and over were paid below the NMW (291,000). Of these 26,000 were 16-17 year olds (7.9 per cent of this age group), 76,000 18-20 year olds (7.1 per cent of the age group) and 189,000 workers aged 21 and over (0.7 per cent of the age group).

Figure 8.1: Proportion of Workers Aged 16 and Over Paid Below Their Age-related National Minimum Wage Rates, 1999-2015



Source: LPC estimates of earnings using adjustments 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 2011-15, standard weights, including those not on adult rates of pay, UK.
 Note: Data include apprentices for all years. It is not possible to identify apprentices prior to 2013.

8.13 Figure 8.1 shows the proportion of all employee jobs paid below their age-applicable rates has remained largely unchanged at around 1.0 per cent since 2000. By contrast, since the 2008 recession, younger age groups of 16-17 and 18-20 year olds have experienced a large increase in their percentages paid below their age applicable NMW rates. However, after excluding apprentices, the proportions of 16-17 year olds and 18-20 year olds paid below their age applicable rates fall sharply from 7.9 per cent and 7.1 per cent respectively to 0.7 per cent and 1.8 per cent. Apprentices are entitled to a lower rate, so this helps assuage concerns about the wider trend. Further evidence on non-compliance for apprentices is covered later in this chapter and in Chapter 5.

8.14 However, estimates based on ASHE are not in any event a complete or accurate estimate of non-compliance, which the underlying survey is not really designed to measure. Results are an overstatement to the extent that there are legitimate reasons to be paid below the NMW – for example, where the accommodation offset operates. They are an understatement to the extent that results from ASHE are based on a one per cent sample of employee jobs in Pay-As-You-Earn income tax schemes, so miss workers in the informal economy, and do not include all workers who earn below the Lower Earnings Limit (although since 2013, broader criteria on how businesses are obliged to report employees’ earnings via their PAYE schemes have partly mitigated this latter problem).

8.15 As stated in previous LPC reports, based on available data on apprentices and the accommodation offset, the Commission's working assumption has been that legitimate reasons for some workers being paid below the minimum wage accounted for less than half of the number paid below the NMW in the official data; but there will also be under-reporting of unlawful non-payment. In total then, non-compliance measured on ASHE could affect somewhere around 100,000 people, plus an unknown number in the informal economy. This compares with arrears being recovered by HMRC for 26,000 workers in the last full year – although we understand that there are much higher numbers so far this year.

8.16 The Government points out that the trend is positive: the bite and coverage has been going up sharply in recent years as the LPC has made recommendations that have pushed up the relative value of the NMW,

but levels of underpayment measured on ASHE have been broadly stable. The implication of this finding is that a higher minimum wage (such as through the introduction of the NLW) does not automatically mean a higher level of measured non-compliance. However, it may also mean that there are 'leakages', into areas not currently measured, including the informal economy. Equally there is a long-standing puzzle of higher estimates of non-compliance when surveys sector by sector, or occupation by occupation are totalled – see Table 1 below. A number of stakeholders continue to feel that the scale of the problem is substantial.

8.17 Simply measuring non-compliance as a proportion of the total workforce may also fail to give a full perspective on the scale of the issue. Those workers paid higher up the earnings distribution are not directly affected by the minimum wage. Focusing on those most affected by the NMW, the number of jobs found in ASHE to be paid below their minimum wage entitlement can be presented as a proportion of just those jobs found to be paid at or below the NMW. On this basis, underpayment was 15 per cent of adult NMW coverage in 2015.

8.18 We believe that that there needs to be a more analytical approach to understanding the extent of non-compliance (where the problem 'from below' looks much bigger than 'from above', or indeed going by HMRC caseloads). A more reliable estimate would

'Tough talk about 'unscrupulous employers', however, runs the risk of portraying this as a widespread problem and betrays the fact that transgressions are beyond rare. Since 2013, only 285 employers have been found guilty of not paying staff the national minimum wage. This is of a total of 1.27 million employers in Britain – meaning just 0.02 per cent broke the rules.'

Institute of Directors evidence

'The report found that about 75 per cent of workers (if not more) were paid £3 per hour on average. Given the extent of informal employment it is difficult to provide absolute numbers...we estimated that the underpayment of wages comes to £1 million per week in the industry [apparel manufacturing] in the East Midlands or 20 per cent of its gross value added'.

Ethical Trading Initiative (ETI) evidence

help channel resources where they were most needed, tackling the issue more effectively for both employers and workers.

Table 8.1: Estimating Non-compliance for Particular Groups: Differences between Data Sources

Group	Data Source	% Non-compliant	Number	Issues
Adult workers aged 21 and over (including apprentices)	ASHE 2015	0.7% paid below adult rate	188,500 over 21s	Some are underpaid legitimately (e.g. accommodation offset); excludes shadow economy.
Apprentices	APS 2014	14% non-compliant		Employee based. Hours misreporting could explain 50% of level.
	ASHE 2015	6% non-compliant	20,000	Employer based. Under-estimates level of non-compliance.
Social care workers	NMDS-social care plus modelling (Hussein, 2011)	9.2-12.9%	155,000-220,000	NMDS-SC not a national statistic. Estimate accounts for face value illegal rates and unpaid travel time, but not deductions. RF (2015) finds average underpayment of £815 per care job – far higher than HMRC’s average arrears per worker.
	ASHE 2015	0.8% of care workers paid below NMW (not necessarily non-compliant)	8,000	No account of unpaid (travel) work hours. Includes apprentices, some of whom paid legitimately below age rates. May not survey the lowest paid and sector definition may not include all care workers.
Interns	YouGov Polling for Intern Aware (FT 2014)	26% of firms with an intern paid nil or less than NMW	Total number of interns not known	No agreed definition of intern, so no agreed estimate of base population. Issue of definition of worker for NMW purposes.
	London Economics (2015)	13-16% graduate interns unpaid		
	Sutton Trust (2014)	One-third of graduate interns unpaid		
Migrant workers	ESRO (2013) MAC (2014)	Encountered many stories of people being forced to work... well below NMW	One in six low-skilled jobs held by migrants – 2m	Tendency for group to be paid in cash.

8.19 We have sought to promote the debate on this, and held a workshop in the summer of 2015 with key players involved in both measuring and acting on the data. So we warmly welcome recent steps by the Government to develop the intelligence base – for example, in the Summer Budget 2015 it announced extra funding to expand HMRC’s data analytics and enforcement teams. However, we believe that the next stage should be to build a better understanding into formal Government objectives. We urge the Government to ensure that the new Director of Labour Market Enforcement has an explicit goal of reconciling different estimates of NMW non-compliance, including obtaining clearer reporting of the scale of non-compliance found in HMRC’s activities.

The Compliance Challenge: Latest Response and Our Assessment

8.20 Having reviewed the scale of the problem, we consider here the effectiveness of the response including strategy, resources, execution, penalties, and access to redress.

Overall Strategy

8.21 A five-year National Minimum Wage Compliance Strategy was introduced by the Government in March 2010 (BIS, 2010). Subsequent governments have endorsed its approach. The overall vision is that everyone entitled to the NMW should receive it. All complaints are investigated. The approach is informed by intelligence and data to ensure best use is made of the available tools and resources. The Government has also previously told us that the Strategy seeks to ensure it has the most effective balance of civil and criminal enforcement action. And it takes a multi-faceted approach, including targeted communications to raise awareness; helping employers to comply (so-called 'self-correction'); and targeted enforcement action in sectors or areas where there is a higher risk of NMW non-compliance.

8.22 Our overall sense from stakeholders, and a view we share, is that the Government has shown significant commitment to addressing NMW non-compliance in recent years, with HMRC becoming much more active. However, non-compliance remains too high and consequently more needs to be done in this area. Meanwhile we have heard some concern from employers about the risk of a tough approach to enforcement in the context of the introduction of the National Living Wage, when accidental mistakes may be more likely.

8.23 There has been a range of encouraging developments to improve the compliance and enforcement regime, such as revising the naming policy and introducing higher penalties. But, as argued in previous reports, we continue to feel that the Compliance Strategy itself is due a review – a step originally promised in 2013 – not least in light of changes to the compliance and enforcement framework. We suggest that an overall assessment and evaluation is carried out once the new labour market enforcement director is in place.

'There was widespread exploitation of workers. Examples included non-payment of NMW in domiciliary care; illegal deductions from staff to pay for uniforms; exploitation of migrant workers in hotels, restaurants and the fishing industry; and evidence of people trafficking in agriculture.'

Irish Congress of Trade Unions (ICTU) evidence, Commission visit to Northern Ireland

Greater Resources

8.24 A strategy depends in turn on resources, where the recent story has been a very welcome one of increased funding and more staff for enforcement of the NMW. The budget increased by a further £4 million in the 2015/16 financial year to stand at £13.2 million. On 1 September, as part of a general government announcement about improvements in the enforcement

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regime, the Government said the enforcement budget for the National Minimum Wage and National Living Wage would also be increased in 2016/17, with future budgets agreed as part of the Spending Review process (BIS, 2015g). In our contacts this year with HMRC we heard how this additional funding was being deployed: including increasing the number of Compliance Officers, and expanding its teams in a number of locations across the UK.

- 8.25** Trade unions welcomed the increase in additional funding for HMRC but added that this did not mean that funding was sufficient or that there were enough Compliance Officers to ensure that workers always get the NMW. For example, the TUC warned that awareness of NMW rights and how they can be enforced has declined among employees, despite its own efforts to disseminate this information and action by the Government. The GMB called for hourly rates on payslips, targeted awareness programmes, and visits to schools and colleges.
- 8.26** We welcome continued extra funding for enforcement. However, as we flagged up in the opening paragraphs of this chapter, developments on the near horizon raise the stakes for continuing to meet the compliance challenge: the introduction of the NLW and also the broadening of the Government's view of labour market enforcement. In addition, as we have argued in previous reports, extra resources need to be sustained into future years and provided with advance notice – one-off cash injections are of limited value for labour-intensive work with high training costs, and time taken before those new staff are fully effective in their role. We will continue to monitor whether the additional resource is sufficient with meet the future challenge.

Raising Enforcement Activity

- 8.27** Increased resources should in turn influence the volume of enforcement activity and, if effectively used, lead to an increase in identification of NMW non-compliance. The story in the current operational year to-date (2015/16) is just that, of a continued rise in HMRC casework levels and a substantial increase in the recovery of NMW arrears compared with the previous year (2014/15).
- 8.28** In the last operational year, April 2014 to March 2015, HMRC completed 2,204 cases and identified NMW underpayments of £3.29 million for 26,000 workers. The number of completed cases was up by over 51 per cent, and the number of workers helped was an increase of 16 per cent on the previous year (22,610). However, the total arrears were down by almost a third on the previous year's record total of £4.65 million. The higher number of cases handled was driven by HMRC facing a 40 per cent increase in complaints of NMW underpayment from the Pay and Work Rights Helpline. This higher complaint-led work necessarily led to a diversion of resources from its more strategic targeted work, which we raised concerns about in our last report. In line with the combination of more cases and lower overall arrears, the average arrears per worker were down, to £125 from the average of £205 in 2013/14. So this greater demand-led work appears to have produced, on average, resolution of cases with a less serious level of non-compliance.
- 8.29** The current operational year (2015/16) has experienced the level of complaint-led work falling back to 2013/14 levels. Despite this HMRC has been completing substantially more cases and recovering a much larger amount of arrears. It explained that it had improved its procedures in recent times to ensure that the 'customer journey' is kept to a minimum.

Indeed, in the 8 months to November 2015 arrears of £8.10 million had been identified for over 46,000 workers. Arrears per worker (£172) achieved so far this year were up on the 2014/15 annual position, although currently still lower than the 2013/14 annual position. The cumulative figure is a record and we applaud the work of HMRC in achieving a step-change in the level of recovery of NMW underpayment.

8.30 HMRC has told us the higher number of cases completed and arrears identified reflected no single change but rather a number of factors: the use of additional resources, with more Compliance Officers; the introduction of new types of intervention; and a new focus on improving the experience of those employees whose complaints are under investigation (through regular reviews of older cases and prevention of newer cases from ageing, more cases can be tackled; together with improvements in 'front-end' processes, meaning complaints are processed faster and overall HMRC is able to cover more employers). It has also led to improved case completion times, which were an area of concern in our previous report. We look next in more detail at how HMRC is conducting its casework and achieving these improvements.

Developing More Effective Approaches to Casework

8.31 HMRC's work falls into two main categories: complaints from workers (demand-led work) and proactive projects (e.g. targeted social care investigations). Complaints from priority groups – social care, interns, apprentices and seafarers – are fast-tracked for assistance. It has also adopted a new approach to complaints work – focused intervention. In our last report we urged that part of the enforcement budget was held and used for targeted compliance work, with social care prioritised.

8.32 Our understanding is that performance this year combines a falling number of calls relative to last year with a substantial increase in the number of workers helped and arrears identified. One development explaining this trend is that HMRC now operates both the traditional full intervention complaints-driven casework, as well as focused interventions – where (having the agreement of the individual complainant to identify them) HMRC completes its investigation of that single case and then puts responsibility on the employer to review NMW compliance across its workforce. HMRC has a process for monitoring employers, who are given time to complete their checks. The employer faces a penalty and naming for the single case, but no further penalty or naming for any subsequent self-corrected NMW arrears.

8.33 Government evidence (BIS, 2015h) advises that this approach has increased efficiency of case handling and reduced average case completion times. In 2015/16, by December the average completion time for focused intervention cases was 150 calendar days (105 working days) compared with 226 calendar days (158 working days) for all other types of casework (we reported previously that the average time taken in 2013/14 to complete a case across all HMRC casework was 213 working days). Between April and November 2015 self-corrected arrears totalled £3.34 million for over 12,000 workers. The TUC was concerned that the previous Government had introduced new operating standards for minimum wage enforcement in 2015, which specified that enforcement investigations should not take longer than one year to investigate. The TUC said that this was a well-meaning initiative, but expressed concern that more complex investigations may be curtailed to meet this target.

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However, HMRC assured us that there was no such policy of 'guillotining' cases after twelve months, and case data we were given show a number of cases have continued beyond the calendar year mark

- 8.34** In addition to their demand-led caseload HMRC carries out proactive work: risk-assessed activities across a range of sectors, sometimes working alongside other government agencies to ensure a joined-up approach (for example, 'street sweeps' with the Agency Standards Inspectorate and Pensions Regulator). HMRC also has at its disposal a 'Rapid Response Task Force' (RRT) to deploy on pressing problems. The RRT is staffed by regular NMW compliance staff who are seconded on a 'need by need' basis. In the future its work will be undertaken by the Serious Non Compliance team (SNC) which is a dedicated team within HMRC NMW. When the SNC is at full capacity it will comprise two Senior Officers (SOs), acting as team managers, and twelve mixed grade investigating officers.
- 8.35** In addition, HMRC NMW officers have contributed to the Government's 'Better Business Compliance' Partnerships. This is a Cabinet Office-led initiative, working across government and local authorities, focusing in particular on migrant workers.
- 8.36** The Government has advised that HMRC is also undertaking targeted enforcement in social care, retail, and the hairdressing and beauty sector. This targeted work is informed by third party information, complaints, information from Better Business Compliance Partnerships, and focused interventions.
- 8.37** The focus on the hair and beauty industry reflects evidence that non-compliance with the Apprentice Rate is high within the sector. To improve compliance in the industry, HMRC launched a NMW campaign to drive voluntary behavioral change – the first of its kind in NMW compliance but similar to some used by HMRC in tax compliance. This involved HMRC and BIS, supported by the National Hairdressers Federation (NHF) and the Hair and Beauty Industry Authority (Habia), providing employers with tailored tools and guidance to check pay, and correct it where errors had occurred. Employers who self-corrected did not have to pay penalties, nor be named by BIS, but HMRC would take action against those who did not.
- 8.38** We welcome improvements in case handling times, faster identification of arrears, and encouraging employers to self-comply. However, the Government should monitor closely the take-up of arrangements incentivising compliance to ensure that an improved flow of arrears to workers is not at the expense of providing a route for serious offenders to dilute the sanctions they would otherwise face. In addition, so that we and others can better understand the scale and nature of the different types of work being undertaken by HMRC, we ask that it provides additional information in its future reporting, on how many staff are deployed in each area of casework (on demand-led, targeted and other work streams) and the respective proportions of overall spending involved.

Higher Penalties and Increased Naming of Non-compliant Employers

Naming Scheme

- 8.39** A key part of enforcement activity is adequate deterrence. Here one of the main policy levers is the Naming Scheme, whereby BIS will name all employers who owe their workers over

£100, and are not exempted (unlike the restrictive set of criteria in the past the only possible grounds now for not being named are: that naming carries a risk of personal harm to an individual or their family, that there would be a national security risk because of naming, or that naming would be against the public interest).

- 8.40** In our last report we urged the Government to consider whether the results from naming could be put to greater use, to maximise the deterrent effect of the penalties which result from failing to pay the NMW. We suggested that there may be scope to do more sector-specific communications work in industries where non-compliance appears to be concentrated. While there has been more activity on naming since our last report it is not clear to us that our suggestions for making additional use of this information has yet been progressed.
- 8.41** On naming, the TUC asked for further information to be made available by HMRC for evaluation purposes. The GMB said that it did not believe that naming was working effectively as a deterrent and recommended that the Government goes further in applying additional sanctions.
- 8.42** The latest list of named employers found by HMRC to have underpaid the minimum wage was published in February 2016. These 92 companies owed workers over £1,873,000 in arrears, and spanned various sectors including hairdressing, social care, hospitality and security services. This brought the total number of companies named under the scheme since the naming criteria were revised in October 2013 to 490 employers, with total arrears of over £3,000,000 and total penalties of over £1,100,000.
- 8.43** These numbers clearly only make sense in the context of the total pool of cases from which they arise. BIS advised us that since the revised Naming Scheme was introduced in October 2013 the 490 employers named represent 95 per cent of the 518 eligible cases (i.e. those with arrears of more than £100). During this period there were 188 cases with arrears of £100 or less, who were therefore not eligible to be named.
- 8.44** Despite the increased level of naming and related publicity, 67 per cent of those responding on this issue to our on-line survey had not heard of the scheme (105 out of 156 respondents). The list of named employers is publicised via a BIS press release. Some stakeholders have suggested a central ongoing list should be made available by BIS – so that this news is not missed and there is a permanent public record. We encourage BIS to maintain a list of all employers named under the Naming Scheme on its website and that each name remains on the list for a suitable period of time. We suggest this should be for not less than one calendar year from the date of the original listing.

Fair Arrears and Penalties

- 8.45** Alongside deterrence come penalties, where successive Governments have been very active. On 1 September 2015 the Government announced a doubling of the penalties for non-payment of the NMW and the NLW (from 100 per cent of the underpayment to 200 per cent of the arrears owed per worker up to £20,000) and ensuring that anyone found guilty of a criminal offence would be considered for disqualification from being a company director for up to 15 years (BIS, 2015g).

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- 8.46** However, fair arrears and higher penalties only have real meaning if the employer actually pays the missing wage and fine. Some stakeholders highlighted instances where workers still do not receive their arrears of pay despite taking and winning a claim. The TUC expressed concern that not all the arrears identified are recoverable, pointing out that some employers go bankrupt to avoid arrears, while others effectively disappear. It recommended that the Government should guarantee the minimum wage in such cases, subject to safeguards to protect against any unfounded claims. The Union of Shop Distributive and Allied Workers (Usdaw) additionally called for NMW enforcement awards to be treated as preferential debts on insolvency and for Employment Tribunals to be able to make personal awards against directors of so-called 'Phoenix companies'.
- 8.47** We welcome the development of higher penalties and the strengthened message that there is an appropriate range of sanctions in place to tackle non-compliance. Those who deliberately flout the law should face the most serious penalties. And we encourage the Government to ensure that these fines and workers' arrears are always paid in practice. However, the Government has previously advised that most NMW non-compliance is at the lower level, inadvertent end of the scale. Given the nature of this type of non-compliance, promoting greater awareness of the NMW, the rates and rules, should help to reduce its occurrence.

Use of Criminal Prosecutions

- 8.48** Alongside civil penalties, there is the option of criminal investigation and prosecution. We have always seen this as an under-used tool, which could potentially have a high impact on those considering deliberately flouting the law. We have, however, recognised the demanding criteria which need to be satisfied in order to bring a prosecution, and how these can limit the flow of cases. Some stakeholders have argued for new prosecution standards. For example, the TUC said that there should be a new prosecution standard for repeat offenders, as well as those who deliberately keep fraudulent records and/or those who obstruct HMRC investigations.
- 8.49** HMRC advised the LPC Secretariat in June 2015 that four cases were currently the subject of criminal investigation (with one about to be added). It highlighted the evidential requirements for referring cases and having them taken forward by the Crown Prosecution Service. The Government has previously announced that it was reviewing its prosecutions policy. In evidence the Government advised that it would establish a dedicated team of compliance officers to investigate cases of wilful non-compliance and deploy the range of sanctions available, including prosecutions. We are pleased that the review has led to more staff focused on identifying and referring cases for prosecutions. We will continue to monitor whether this leads to a change in the number of cases subsequently taken to the courts, and remain interested in how the proposed new offence of an aggravated breach of labour market legislation is introduced and operates.

Promoting Access to Redress

Employment Tribunals

- 8.50** Effective enforcement of course requires access to redress as well as punishment. Here, two particular issues have featured in our deliberations: fees to take a case and the changes to the period of time which can be considered for any NMW arrears.
- 8.51** Employment Tribunal (ET) fees were introduced in July 2013 and of course are a broader issue than the minimum wage alone. Nonetheless, there continue to be stakeholder concerns about their impact. The average amount owed per worker (£125 in HMRC minimum wage cases in 2014/15) was substantially less than the fee to lodge and hear the case at ET (a minimum of £390). The Government has commenced a review of tribunal fees carried out by the Ministry of Justice and scheduled to be completed in 2015/16. We look forward to the outcome of the review.
- 8.52** Although relatively few NMW cases have historically been brought through this route, rather than HMRC, employee representatives argue that the introduction of fees has removed the leverage which workers previously enjoyed to resolve NMW wage disputes before getting to tribunal. If so, groups who believe the HMRC route may not resolve their claim – stakeholders cite interns and migrant domestic workers – may be particularly disadvantaged.
- 8.53** Evidence this year for this latter group has also highlighted how other reforms to Employment Tribunals – time limits on arrears of wages – may also affect their remedies for non-payment of the NMW. The Deduction from Wages (Limitation) Regulations 2014 came into force in January 2015 to limit the period of back-pay that could be claimed for under-payment of holiday pay to two years from 1 July 2015. This followed recent court decisions surrounding the rules on this matter. However, the time limit applies not just on holiday pay claims, but for any unlawful deductions from pay in cases heard by Employment Tribunals under Section 23 of the Employment Rights Act (including for the NMW).
- 8.54** BIS has argued that, while the regulations do limit NMW claims in an ET to two years, they do not affect claims handled through the separate enforcement route offered by HMRC and, in addition to this, workers are still able to bring an NMW claim as a breach of contract to the County Court. In relation to both of these routes, the limitation remains at six years (5 years in the Scottish courts). So an alternative remains if workers decide that they want to bring the claim themselves, rather than go through HMRC.
- 8.55** However, stakeholders like the Anti-Trafficking and Labour Exploitation Unit (ATLEU), which represents Migrant Domestic Workers, remained concerned. It cited cases of extreme exploitation going back a number of years, where in future workers winning a case at Tribunal would receive limited back-pay. This may further incentivise exploitative employers to continue their practices. It is difficult to know the scale of this issue but, as highlighted below, we remain concerned generally about the enforcement of the NMW rights for this group. We urge the Government to consider how workers, particularly those facing extreme exploitation, may continue to receive the previously available level of arrears of NMW pay and not limited to two years.

Role of Third Parties

- 8.56** In our 2015 Report we said we would consider further stakeholder proposals for a more active or formalised role for third parties in HMRC's complaints work as a way to encourage workers to expose possible NMW breaches. We also said we would seek to obtain a better understanding of whether third parties can have a role within existing law and Employment Tribunal procedures in handling associated worker complaints.
- 8.57** In evidence this year, the GMB called for greater involvement in future for trade unions in reporting minimum wage abuse. Other unions have also supported rights for them to be able to bring 'class actions' to an Employment Tribunal. Whether to allow such actions is a far wider issue of employment law than just enforcement of the minimum wage, and goes beyond our own remit. There are existing ways in which Employment Tribunals can use case management arrangements (known as practice directions), to group together the consideration of individual claims as a multiple case. This is of course not a class action, but may assist some workers and streamline arrangements, particularly where there are a number of similar cases. Our view is that adjustments to the HMRC enforcement route could enhance the role of third parties and in so doing encourage additional workers to bring forward evidence of non-compliance.
- 8.58** HMRC advises that third parties already have a role in reporting evidence to it. For example, there is a report form for third parties and HMRC feeds such intelligence into its risk assessments, although confidentiality issues restrict how much information it provides on how such evidence is used. The weakness of the system is that third parties find this a frustrating experience – reporting little feedback on whether their evidence is being pursued, and unable to advise those on whose behalf they had raised the issue whether any action is being taken. This does little to encourage third parties, or the individual workers who channelled their concerns through them, to come forward again in the future.
- 8.59** We suggest a way needs to be found to improve the third party role and experience, which in turn may encourage further whistleblowing on breaches of the NMW. As well as a formal method for third parties to play a role in reporting alleged non-compliance, there needs to be a formal way in which action is fed back to them and they are kept involved in developments. In addition to any arrangements for feedback in individual cases, which should at least include being told when intelligence has been actioned, this feedback could involve periodic aggregate data on referred cases that led to enforcement action. **We recommend that the Government establishes a formal public protocol for HMRC to handle third party whistleblowing on breaches of the NMW, which should include arrangements for giving all possible feedback to relevant third parties and appropriate continuing involvement in any resulting casework.**

Promoting Greater Compliance: Awareness Raising and Developing Guidance

Raising Awareness

8.60 Enforcement alone, no matter how effective, is unlikely to meet the compliance challenge. Systemic change depends on widespread awareness. To that end, in our last report we urged the Government to devote further time and resource to publicising workers' entitlement to the National Minimum Wage and employers' obligations to pay – including evaluating the impact of its efforts through more outcome-based measures like polling or surveys. We said further publicity to highlight HMRC's confidentiality/whistleblowing policy would be particularly welcome.

8.61 As noted earlier in this chapter, the scale and nature of the awareness challenge has this year become bigger – due to the introduction of the National Living Wage. Among stakeholders, Usdaw warned that its introduction will be a 'flashpoint', because it is a different date from the normal increases and a substantially higher increase than the usual uprating. It was one of several organisations worried about confusion associated with the use of the term – the National Living Wage. The TUC highlighted the work done by BIS and HMRC to generate media stories around the NMW, by naming and shaming 200 underpaying employers and referred to the significantly increased maximum penalty introduced of £20,000 per worker. But it thought more needed to be done to raise awareness. Others representing workers were concerned that workers feared reporting their employer, and that there had been a reduction in community-based support and advice to help them.

'Workers in local industries had experienced widespread NMW non-compliance, but were reluctant to report it to HMRC due to fear of losing their jobs, while at the same time local spending cuts had led to the closure or reduction in services in many community centres which were a first port of call for low-paid workers seeking advice.'

Leicester & District Trades Union Council, Commission visit to Leicester and Derby

8.62 A number of employer representatives were concerned that a more complex regime could lead to inadvertent non-compliance, and therefore called for better guidance and awareness of the rules. The Federation of Small Businesses (FSB) sought a campaign of targeted communication. It highlighted the risk that different wage cycles might increase unintentional non-compliance. The Recruitment and Employment Confederation (REC) called for clear and specific guidance, warning firms rates increased complexity. The CBI also stressed the need for active efforts to ensure that employers understood their obligations. As well as a dedicated awareness campaign, it thought the LPC should recommend a grace period for employers to get the NLW right: enforcement action should only be taken after it was clear that employers had deliberately and persistently ignored the rules.

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- 8.63** The Government has announced a number of initiatives to improve the guidance and support made available to firms on compliance; this includes working with payroll providers to be sure payroll software contains checks that staff are being paid what they are entitled to. It has also initiated a programme of work that aims to increase the awareness of NMW among those running and working on apprenticeships in England.
- 8.64** The Government has taken steps to increase its communication of NMW information more generally, with the aim to improve the understanding and compliance with the NMW rules. Communication actions taken include working with intermediaries to provide upstream education and advice supporting employers to become compliant. The Government carried out a number of awareness raising and education projects over 2014/15, including: two digital education products, one being a 30-minute webinar, *'NMW for employers'*, broadcast in March, setting out the basic rules for compliance with NMW law and highlighting common errors and pitfalls to avoid; and four regional employer conferences for the care sector.
- 8.65** On the NLW, the Government announced plans to run a substantial awareness raising campaign in the run up to its introduction in April 2016 – which commenced with a television advertisement on 18 January 2016. We understand that the Government also intends to evaluate the impact of its campaign. We welcome this as we have previously called for improvements in the analysis of whether awareness raising has actually improved employer and worker understanding of the NMW. This will be even more important in light of the changes introduced by the NLW.
- 8.66** Overall, we welcome these steps. In relation to the NLW, it is unclear at this stage how well prepared firms are – in the period to December 2015, there was some stakeholder frustration at limited guidance and information, especially on matters of detail with scope to affect pay systems, like how the NLW will work in relation to salary sacrifice. From December 2015, more information has emerged. We urge the Government to ensure that publicity is targeted to reach low-paying industries and workers, and also that it is sustained. For example, there will also need to be information in October when the rates for workers aged under 25 and apprentices change, not just in April when the NLW is introduced. Finally, as last year, awareness activities could usefully focus further on outcomes in relation to how efforts have changed employer and employee awareness. The substance of the Government evidence to us has been focused on describing inputs, with little quantification of their scale or results: on the NMW and NLW alike proper evaluation of the impact of its campaigns would provide better evidence of the effectiveness of its activities and we welcome the indications that the Government is intending to undertake such analysis.

'With the NLW increasing the complexity of the UK's pay floor, ensuring employers understand their obligations will be critical'.

CBI evidence

Improving the Guidance

- 8.67** An important complement to awareness-raising is guidance. In our last report we urged further development of the official NMW guidance and the Government to engage and work in partnership with those in sectors such as care, agriculture, and entertainment, to address concerns.
- 8.68** This year we heard from our stakeholders that there has been some progress. The Government referred to its announcement on 1 September 2015 of a package of measures to strengthen the enforcement of the NMW, including development of sector-specific material. The Government noted that since the publication of the Commission's last report it had published new guidance on calculating the NMW and had made regular updates to the relevant pages on GOV.UK. According to our on-line survey 58 per cent of respondents on this issue found out about changes to the NMW and rates via GOV.UK (91 out of 158 responding on this question).
- 8.69** In September the National Federation of Hairdressers (NHF) informed us that it had produced, in partnership with HMRC, tailored guidance for its members. From the Government evidence we also learnt that, in collaboration with UK Music and others, HMRC had helped produce a UK Music Internship Code of Practice, to assist employers and workers across the music industry in developing fair internship policies. The United Kingdom Home Care Association (UKHCA) also reported in its evidence that it had received funding through Skills for Care to make its Minimum Price for Care toolkit available to the whole sector.
- 8.70** These developments are welcome, but the Commission continued to receive evidence from stakeholders of a shortfall elsewhere. The Association of Labour Providers (ALP) commented that while GOV.UK generally does a good job in getting the key points of the NMW across this guidance is very basic and certain sectors need better direction on the more challenging issues it may have, such as on application of the rules around travel time. In social care, the UKHCA remained concerned that NMW guidance appeared to lack clarity over three particular aspects of employing peripatetic homecare staff, namely: the time taken for travelling between homecare assignments; time spent waiting before and after assignments; and unplanned gaps between assignments.
- 8.71** The National Day Nurseries Association (NDNA) additionally would welcome the opportunity of working with the Government to develop better sector-specific guidance. For example, it said clarification was needed on the treatment for NMW purposes of deductions from salary for the cost of childcare that take the employee's net pay below the NMW. One stakeholder said that there was scope for more information in areas where technical breaches could occur – it referred to payments in employee's final wages/salaries when they leave employment, uniforms and travel time. It also thought that more worked examples in the guidance would be helpful.

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- 8.72** Among those organisations representing the worker perspective, the TUC referred to the Government's recent announcement promising better guidance for employers and asked for it, the Commission and other stakeholders to be fully consulted on its future content. Equity repeated its call for sector-specific advice, adding that this would be of enormous value to both employees and employers in the creative and media sectors. Unite said that it was pleased that the NMW guidance had been improved by adding links to some of the older text. However, it added that some areas were still hard to find and are incomplete, such as on tips. Our Secretariat has also identified some issues around the detailed presentation of the existing guidance and missing links (such as to a PDF on calculating the NMW) and has provided details to BIS officials.
- 8.73** Overall, we acknowledge the efforts made by the Government to improve guidance and encourage HMRC and BIS first, to develop stakeholder guidance on the application of the new NLW, second, to build on the success of HMRC's work with the NHF to develop further sector-specific guidance, and third to address some of the detailed gaps in the existing guidance. These measures have the potential to help further to reduce levels of NMW non-compliance.

Enabling Enforcement and Improving Awareness – Better Hours Information

- 8.74** A cross-cutting problem impeding workers bringing cases, and HMRC enforcing the minimum wage, is uncertainty regarding the hours for which they are being paid. This issue was raised in written and oral evidence and during our visits around the UK. We also know from research that under-recording of hours is a particular issue in NMW compliance for apprentices (in relation to recording training hours) and in social care (in relation to travel time).
- 8.75** At oral evidence, UNISON argued for clearer pay statements, so that workers could be assured they had been paid at least the NMW/NLW. This statement would set out information on how pay had been calculated – especially the critical area of hours – and demonstrate how it was NMW compliant. Both UNISON and the GMB highlighted Section 12 of the NMW Act and urged the Government to use its provisions. UNISON called on the Government to make regulations as provided for under that section requiring employers to provide their workers with a statement demonstrating compliance with the NMW. The GMB said employers should provide workers with a written National Minimum Wage statement in order to assist the worker to determine whether they have been remunerated at a rate equal to or above the NMW. However, the GMB's experience was that payslips are not always clear, and so it thought they should show an hourly rate.
- 8.76** At oral evidence the ALP suggested the NLW might lead to higher non-compliance through various malpractices, including paying well below the minimum wage through falsely under-recording worker hours, or sometimes in collusion with workers establishing false records to claim benefits.

'Pay slips should contain hours worked for easier calculation of hourly pay entitlement.'

Unite Officer, Commission Visit to London

- 8.77** Incorrect recording of hours worked, and therefore subsequent underpayment, is likely an important driver of non-compliance (both measured and unmeasured), and it is a problem which wider structural changes in the labour market are set to keep centre stage, with more use of variable hours and other kinds of flexible contracts where hours change day to day. We are therefore attracted to the kind of solution proposed by some stakeholders, and think it is worth investigating seriously. **We recommend that the Government reviews the current obligations on employers regarding provision of payslips and considers introducing a requirement that payslips of hourly-paid staff clearly state the hours they are being paid for.** In implementing this requirement the Government should take into account the implications for different pay arrangements, such as for those workers on term-time only contracts receiving a standard level of pay for each pay period, but working nil hours outside term-time.
- 8.78** In order to arrive at a level of pay for workers, businesses already need to know how many hours individuals have worked. So this is about sharing the assumptions made more explicitly than at present, thus increasing transparency, rather than imposing new burdens on firms. As well as providing a key piece of information for the worker to help reconcile hours and pay this step would also help in cases where HMRC is seeking to enforce the NMW. It would also have relevance in sectors such as care and for particular groups of workers, such as apprentices.

The Compliance Challenge: Priority Issues and Groups of Workers

Care Workers

Compliance and Care Commissioning

- 8.79** In our last report, we highlighted evidence on adult social care that was familiar and concerning in equal measure – as local government finance, poor commissioning, low funding and non-inclusion of payment of travel time drove non-compliance. This year, these concerns have once again been the dominant theme from stakeholders – albeit sharply heightened in view of the forthcoming introduction of the NLW and, in the evidence we have received, not substantially assuaged by extra funding measures announced in the 2015 Spending Review. Providers are increasingly talking about risks of business failure, not just non-compliance.
- 8.80** Analysis of the care home market by Laing and Buisson (2015d), found that despite a predicted rise in demand for care home services, capacity was now

'213 (74 per cent) of 288 providers trading with councils told us that, following the announcement of the NLW, they would have to look to cease or reduce their supply to councils with which they trade... 11 per cent of all providers thought they would 'definitely' or probably have to cease trading within the next twelve months.'

UKHCA Market Stability Survey (UKHCA, 2015)

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falling, driven by squeezed operating margins in areas of the country with high exposure to publicly funded residents as local authorities continued to offer sub-inflation fee uplifts. It described a highly polarised market where at one end those operators with a focus on private pay residents were doing relatively well, while at the opposite end those which catered mainly for government supported residents faced bearing the brunt of council fee freezes (Laing and Buisson, 2015c). And the sector depends heavily on a cross-subsidy from (higher paying) private funders to those whose services are publicly supported, which development of a polarised system may undermine.

- 8.81** Laing & Buisson found local authority fees for care home residents had fallen in real terms on average almost 5 per cent over the past five years (Laing and Buisson, 2015b). At the same time there were reports of major care home operators selling off homes or soon running out of cash. In commentary following the Autumn Statement, Laing & Buisson warned that the proposed introduction of a 2 per cent Council Tax levy precept hypothecated for adult social care, simply transferred responsibility for addressing the gap in care funding rather than resolving it. It saw matters as only likely to resolve themselves through market correction, and perhaps only after a crisis (Laing & Buisson, 2015e and 2015f).
- 8.82** The Registered Nursing Home Association (RNHA) said that the care market was fragile; councils had frozen fees and providers were exiting the market, with lenders delaying investment decisions in the care industry. In the homecare market we heard similar reports of providers exiting the market (Laing and Buisson, 2015a). In its evidence, UKHCA estimated that state-funded homecare is set to run at a deficit of £753 million in 2016/17 unless adequate funding is found and there are responsible commissioning practices.
- 8.83** UKHCA was worried that without a commensurate increase in fees from local authorities the NLW in April 2016 will have a negative impact on the sector. It estimated the minimum required fee price for homecare was £15.74 an hour – before the NLW. Its calculation for minimum fee post-April 2016 is £16.70 an hour. Its survey in 2014/15 found the average fee rate paid by UK local authorities was £13.66 an hour, with some local authorities paying as little as £10 an hour.
- 8.84** The GMB highlighted that pay levels in social care had always been low, and were now being squeezed by public spending cuts. The union said that this squeeze on funding, combined with privatisation and outsourcing, had negatively affected social care workers and the services they deliver: pay, travel time, reasonable mileage allowances, shift premiums for night and weekend working have all been eroded, even as workloads increased.
- 8.85** UNISON cited a Local Government Association (LGA) survey of councils on how well they were coping with the new Care Act. Only 70 per cent said they were currently assured that their care providers were going to be paying the workers the NMW – despite this being a requirement of the statutory guidance underpinning the Act. A number of stakeholders referred to the Care Act with most arguing that it was too early to know if the statutory guidance was making any real difference.
- 8.86** The Government advised us that HMRC had continued its enforcement action in the care sector. In its final evidence to us (BIS, 2016) it supplied updated data on HMRC casework in social care. In the period from April 2011 to October 2015 HMRC completed 466 cases.

So far this had led to identification of arrears in 191 cases (41 per cent), over the whole period, although the strike rate was higher at 52 per cent in the cases opened in the initial two-year period April 2011-March 2013 than in the cases opened and closed in the time since, at 31 per cent (note, enquiries are continuing in some cases opened on or after 1 April 2013, which will affect the strike rate). Arrears over the whole period totalled £1,749,975 for 8,698 workers at an average of £201. Although the strike rate is currently lower in the period April 2013-October 2015, average arrears per worker were higher (£231 compared to £194).

- 8.87** As well as investigating worker complaints and undertaking targeted enforcement, HMRC had met with union officials to discuss compliance issues in the care sector; and held further discussions with senior officials and Ministers at the Department of Health (DH) about the root causes of NMW non-compliance in the care sector, and the link to the local authority tendering process for care provision. In addition, DH, HMRC and BIS had carried out joint work on increasing awareness among care workers and employers of the NMW, through a series of advertisements in trade journals. Additionally, the Government is jointly working with the Association of Directors of Adult Social Services (ADASS) to look at the additional responsibilities on local authorities in the commissioning process following the introduction of the Care Act (2014).

Compliance and Payment for Hours of Travel and Sleepovers

- 8.88** We heard again this year how the interaction between complex working arrangements and NMW rules may be aggravating the risk of non-compliance in the sector. A survey of councils in England carried out by UNISON revealed that non-payment of travel time had continued to be a substantial issue. In addition the union thought the recent European Court of Justice ruling on travel to and from the first and last job of the day made it all the more important that council contracts explicitly required providers to pay travel time, while the Scottish Social Services Council referred to implications for the care sector on travel time in the light of the recent European Court decisions.
- 8.89** Disputes over workers' wage entitlement during sleepovers – arrangements where payments are made to workers when they are provided with facilities to sleep at or near their place of work and be available to deal with emergencies, but would not necessarily expect to be woken otherwise – also featured in the evidence we received this year. Unite said it was an issue for many workers who were paid above the NMW, as employers claimed that their salary averaged out above the NMW across the whole time they worked. However, Unite had examples where this average was not compliant. Unite thought the LPC and HMRC should take steps to improve enforcement on this issue.

Conclusions on Compliance and Care Workers

- 8.90** The LPC urges the Government to maintain social care as a priority sector for minimum wage enforcement. We believe that HMRC should continue to undertake targeted action in the sector, focusing on providers in local authorities combining low hourly rates, and low proportions of private payers. This is particularly important in the context of the introduction of the NLW, where providers are warning of substantial risks, so areas like travel time and pay may come under further pressure. Ultimately though, non-compliance is mainly a

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symptom of broader funding and commissioning problems. It is important that councils, deciding whether and how to exercise their new freedom to raise Council Tax by two per cent to fund social care, and the relevant parts of the Government including HM Treasury, Department for Communities and Local Government (DCLG) and Department of Health (DH), monitor closely the health of the sector.

- 8.91** More broadly, our earlier proposal that the Government take action to reconcile the different estimates of NMW non-compliance has particular relevance in the care sector where there remains a stark discrepancy between the numbers cited in research and what appears to be HMRC's practical experience when it investigates cases – as set out in the latest case data quoted above. It would be helpful, in order to obtain a better idea of the level of non-compliance occurring in social care, and other sectors, that as well as the strike rate for cases, HMRC published information on the number of workers covered in their investigations and in what proportion of these wages are found to be NMW non-compliant.
- 8.92** As noted earlier, incorrect recording of hours worked, and therefore subsequent underpayment, is likely a major driver of non-compliance (both measured and unmeasured). This supports our earlier argument for a requirement for employers to make a statement on payslips giving the hours for which the payment relates.

Apprentices

- 8.93** Like care workers, apprentices are another group at risk of non-compliance, but one where there is a degree of complexity arising from their specific rate that may have a bearing both directly, and indirectly via the NLW.
- 8.94** The Government asked us to consider for our 2015 Report whether any changes could be made to the Apprentice Rate to simplify the structure and improve compliance, including the option of combining it with the 16-17 Year Old Rate. It further asked us to consider whether the structure and level of the Apprentice Rate should continue to be applied to all levels of apprenticeship including higher levels.
- 8.95** Having reviewed the evidence carefully, we recommended clarifying in regulations that the Apprentice Rate should not apply to Higher Apprenticeships. But we found no other structural change that we felt able to recommend. On the Apprentice Rate to apply from 1 October 2015 we recommended a 2.6 per cent rise in the rate to £2.80 an hour. The Government subsequently rejected this recommendation in favour of increasing the rate by 57 pence (21 per cent) to £3.30 an hour. This was the largest ever increase in any rate of the NMW, and halved the gap with the age rate for 16-17 year olds. The Government (BIS, 2015e) said that approximately 75,000 apprentices would be affected by the increase and this would cost employers an estimated £75.6 million.
- 8.96** There have been significant developments on apprentices since the publication of the LPC's 2015 Report including: the announcement of an Apprenticeship Levy; Government plans to enshrine in law its commitment to create three million apprenticeships by 2020; separate plans by the Government to protect in law the term 'apprenticeship' (this will give the Government power to take action when the term is misused to promote low quality courses);

and the continuing development of new Apprenticeship Standards (Trailblazers) designed by employers, which will in time replace Frameworks.

8.97 The next challenge is the National Living Wage. The TUC among others warned of the risk of workers aged 25 and over being rebadged as apprentices, without the requisite training and development. We note that the application of the NLW to workers aged 25 and over in the second year of their apprenticeship means a significant jump in its value – from £3.30 to £7.20, a gap likely to increase towards 2020. This may be managed effectively by employers. However, there is also a risk it could reduce the share of apprenticeships lasting longer than a year held by older workers, or see increased non-compliance after a year.

8.98 Apprenticeship quality and concerns over maintaining it were a theme in many of the submissions we received. The GMB said it agreed with Government plans to boost the number of apprenticeships and support companies offering them but thought these apprenticeships must be ‘real’ ones and not just a rebranding of school leavers’ jobs. Usdaw thought that the NLW was so far ahead of the Apprentice Rate that it increased the risk of apprentices being exploited and used as cheap labour, with the quality of apprentices suffering as a result.

‘The rapid growth of the apprentice programme has led to quality issues in a substantial minority of cases...a substantial minority of apprentices report they receive no training or assessment.’

TUC evidence

8.99 In terms of apprentices receiving their minimum wage entitlement, we were concerned in our 2014 report that non-compliance was so widespread as to indicate that significant increases risked leaking away. The large increase in 2015 may shed light on the validity of this hypothesis, albeit there is little new data available pending the next Apprentice Pay Survey (probably in 2016). HMRC told us that the top three reasons for non-compliance in relation to apprentice pay were: the employer saying that they were an apprentice when they were not; the employee not receiving a pay rise after twelve months (e.g. 19 year old moves up to the YDR after twelve months); and the employer offering an apprenticeship contract and then nothing happened (e.g. the individual never officially joins a government sponsored apprentice scheme).

8.100 As part of our research programme, Drew, Ritchie and Veliozotis (2016) looked at the extent and reasons for measured non-compliance of the Apprentice Rate. Although it was only commissioned in September 2015, it extended previous analysis (Drew, Ritchie and Veliozotis, 2015). Early findings include clear duration effects on non-compliance (with much higher non-compliance being seen with Apprentices aged 19 and over in Year Two). In addition, the lowest likelihood of non-compliance was associated with awareness of the Apprentice Rate or a specific rate level.

8.101 In its written evidence to us this year, the Government said that it was taking steps to tackle non-compliance in this area, by fast-tracking complaints from apprentices and undertaking targeted enforcement in the hairdressing sector. As explained earlier in the chapter the Government has been working with the NHF in hairdressing to develop sector-specific guidance, continuing with its policy of naming and shaming and raising awareness of the

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NMW among apprentices. For example, in 2015 it has provided NMW information to: the Apprenticeship Ambassador Network, a group of employers who aim to drive engagement and promote the role of apprenticeships; the Apprenticeship 'Trailblazer' Group; and in a newsletter to the Skills Funding Agency's (SFA's) entire business audience.

- 8.102** We acknowledge the efforts made by the Government to address non-compliance in this area. Even more could be done in future to help ensure that all apprentices get the pay they are legally entitled to. In particular we believe it is vital that it funds another Apprentice Pay Survey in 2016 to monitor the impact of the 2015 increase and the National Living Wage, seeking to ensure that effects on supply of places and non-compliance are captured, and investigating how quality of apprenticeship provision might also be understood. More broadly, it would be helpful for us to receive additional evidence on the quality of apprenticeship training. In our view, poor quality provision can be regarded as a disguised form of non-compliance – on the basis that, in the absence of training, supervision and support, the rationale for the wage discount applicable in the form of the Apprentice Rate is undermined.
- 8.103** The Government announced in December 2015 that it would establish a new independent body – the Institute for Apprenticeships – led by employers to regulate the quality of apprenticeships. The new Institute is expected to be phased in during 2016 and fully operational by April 2017.
- 8.104** We welcome the introduction of the Institute for Apprenticeships and ask the Government to ensure that we are kept up-to-date with the development of this new body which will be monitoring the quality of apprenticeships in future. The Government should also develop better cross-referral between the SFA and HMRC such that any issues with non-payment of the minimum wage prompt consideration of quality, and any issues identified in quality of provision are considered in HMRC's risking for non-compliance work.

Employment Status: Internships, Work Experience, Volunteering, and 'Self-employment'

- 8.105** The NMW applies to workers. One concern when the minimum wage was introduced was that some employers would seek to avoid the obligation to pay it by attempting to change the status of those undertaking work for them. Claiming someone was self-employed is one possible route, and we have always watched for any significant changes in the level of self-employment, particularly in the low-paying sectors. In addition, there are other categories of status which would legitimately exclude someone from NMW entitlement, such as being a volunteer or undertaking specific categories of NMW exempt work experience, for example that related to a higher education course.
- 8.106** However, whether someone is a worker or not is a matter of fact in terms of their contractual relationship and what they actually do, rather than being determined by their job title or how their status is labelled by their employer. While in the early years we received relatively few signs that channelling workers into a different employment group to avoid payment of the NMW was occurring, in more recent times, particularly since the onset of the last recession, we have received a considerable volume of evidence on this issue. The introduction of the NLW means that these risks have renewed relevance.

Internships, Work Experience and Volunteering

- 8.107** Over the last few years, the LPC has received a substantial volume of evidence suggesting a growth in situations where the terms 'internship', 'work experience' or 'volunteer' were applied to unpaid activities that looked like work and to which the NMW should be applied. In our 2015 Report, we called for a system in relation to intern pay, which on the one hand protected workers' rights to the NMW from day one and on the other did not inhibit genuine volunteering and work experience. We expressed concern about the abuse of internships, both in terms of the harm to the individual who goes unpaid and the damage to the person denied the opportunity of getting experience because they are unable to take a low paid or unpaid job.
- 8.108** In 2014 the Government announced that it was conducting a review to help clarify the employment status of workers (BIS, 2014d). Pending the results, our 2015 Report encouraged HMRC to develop further its enforcement activities in the area of interns and voluntary workers, particularly focusing in those sectors where there is significant non-compliance (for example, the entertainment sector, PR, fashion marketing and so on). In response to requests for clarification on entitlement to the NMW where no reward has been paid to an intern, we encouraged the Government to ensure that the official guidance was unambiguous on this issue. We added that we would continue to monitor developments in this area closely.
- 8.109** This year we received fewer responses from stakeholders on this issue. While this in itself could be interpreted as evidence of an improving situation, the feedback we have received from stakeholders who have responded indicated that the issue remains live. For example, the Government in its written evidence to us confirmed that internships remained a key risk area for it and were identified by BIS as a priority group in 2014/15. Consequently, it said that HMRC continues to fast-track complaints from interns for investigation.
- 8.110** Unite said that it believed that unpaid internships remained a major issue, particularly in the not-for-profit sector. Unite maintained that under employment law, people who work set hours, do set tasks and contribute value to an organisation are 'workers' and are entitled to the NMW, but many employers in the voluntary sector were paying their interns nothing. Consequently, Unite urged employers who care about their workers to sign up to a voluntary code that pledged to end unpaid internships and pay all interns at least the NMW. Unite said that in future there needed to be greater clarity on what is legitimate volunteering and what is not and it called on the LPC to endorse the code and target enforcement at unpaid internships in the voluntary sector.
- 8.111** The National Union of Students (NUS) said that it continued to support our position on internships and the minimum wage, as outlined in successive reports, and our rejection of any different set of rules for those undertaking internships and other forms of unpaid work experience. In contrast, one stakeholder suggested that there should be a lower but enforceable NMW rate for interns. The Prince's Trust said it supported unpaid work experience only when it was agreed on a short-term basis, with structured support and progression opportunities. However, it added that once the placement extends beyond a short-term basis, the NMW should be applied.

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- 8.112** Previously we have raised the issue of alleged HMRC unwillingness to investigate cases where interns had not received any reward – with some stakeholders saying that they were being told that, for HMRC, the absence of any payment automatically meant an intern was not a worker. But HMRC advised that the absence of a reward/consideration was just one of a number of factors taken into consideration when evaluating the merits of a particular complaint. We remain concerned about lack of clarity on this point. The BIS NMW Worker Checklist for example states that you only qualify as a worker if you have a contract or other arrangement which entitles you to a reward, which makes it sound as though a more binary test may be being applied. HMRC has advised us that it is following BIS policy on this issue, and that this matter, which relates to contract law, was currently being discussed further with lawyers. We await the outcome of these discussions with interest.
- 8.113** In the entertainment sector, Equity said that it continued to be concerned that many organisations in the arts and entertainment industries, particularly film schools, continue to reference section 44 of the NMW Act (exemption for voluntary workers) in their attempts to avoid paying the NMW to performers. Equity added that it had sought to highlight the obligations of employers and challenged them to provide evidence that such work is truly ‘voluntary’ under section 44 of the Act. In the absence of such evidence, it had requested that the performers be paid at least the NMW rate. Equity referred to a serious failure by HMRC to enforce the law against employers in the entertainment industry. In oral evidence, BECTU referred to low-paid sector workers, particularly runners, who not only face no or low pay, but also had to pay a fee for being ‘introduced’ to the work. BECTU advised that employment agencies were reportedly taking advantage of a legal provision where unpaid work, usually described as ‘work experience’, does not constitute employment, and up-front fees are permissible. Other evidence we received in the entertainment sector referred to performers being charged agents’ commission and other fees, which could reduce earnings below the minimum wage.
- 8.114** We continue to take the view that the NMW should be enforced for all workers and do not favour a separate rate for those undertaking work experience, internships or volunteering, however defined. We are interested in the outcome of any further consideration by the Government of the extent to which the ‘reward’ requirement triggers NMW entitlement. We urge the Government to target the arts and entertainment industries, (particularly film schools and TV) in future to improve NMW compliance.

Self-employment

- 8.115** Self-employment is an area likely to need careful scrutiny during the introduction of the NLW. Evidence from Unite’s London members working in hotels argued they had seen a rise in bogus self-employment across the industry. It described how typically an agency recruits migrant workers either legally, via student visas, or by more dubious means. The worker is given one or two weeks training as an employee, but then told how to become ‘self-employed’ and carry on working but with this different status. Students are rotated so any visa limit on hours worked by migrant workers is not breached. Any problems with the client are met by the worker being moved to a different employer. With no employment rights, no complaints can be made about underpayment of the NMW.

- 8.116** Unite's evidence also (as in previous years) highlighted other drivers of NMW non-compliance in hotel cleaning, including agencies abusing the Fair Piece Rate arrangements. Unite repeated its call for these arrangements to be removed from the hotel sector. In addition, at oral evidence Unite advised of other practices which meant hotel cleaners were not being paid for all their time at the workplace: delay in starting their work (by late arrival of linen or guests not vacating on time), but having to clean the same number of rooms without being paid to the end of their working time; and not being paid for training days.
- 8.117** The TUC has also highlighted employers wrongly assigning staff as self-employed. Evidence to us has emphasised the evidential hurdle workers face once labelled self-employed in proving their real status and entitlement to the NMW: it was argued that the burden of proof is on them to show that they are not.
- 8.118** The latest data on self-employment show that in the year to the third quarter of 2015, self-employment fell by 43,000 (a fall of 1.0 per cent) in the low-paying sectors overall. Although self-employment in hospitality remained broadly the same in both periods, self-employment rose over the period in cleaning by 8,000 (a rise of 6.2 per cent). Stakeholder evidence has again highlighted the potential abuse by employers refusing to pay the minimum wage because they claim (wrongly) the worker is self-employed, particularly in hotel cleaning. We urge HMRC to continue to monitor compliance and target appropriate enforcement resources in the hotel, and broader cleaning sector, and keep a close eye on wider trends as the NLW is introduced.

Migrant Domestic Workers

- 8.119** Evidence to us in recent years has highlighted the difficulties migrant domestic workers working in the UK have experienced in establishing their right to the NMW. Despite entering the UK on an overseas domestic worker visa, employers often invoked the family worker exemption from the NMW and there were examples of the higher courts upholding this. This exemption was originally introduced in 1999 to cover au pairs, but has unintentionally also caught migrant domestic workers. In addition, they face difficulties in enforcing their right to the NMW given changes to visas (which now tie them to one employer and limited their stay in the UK to six months) and financial barriers to accessing justice.
- 8.120** In our 2015 Report, we said that we remained concerned about this issue. We noted that while the Government had said that it would improve enforcement of the NMW for this group of workers, it had not addressed the NMW regulations themselves. We urged the Government to look again at the application of the family worker exemption and added that the existing visa arrangements should be operated effectively and consistently in relation to apparent NMW breaches.
- 8.121** This year we again received evidence regarding migrant domestic workers from both Kalayaan and the Anti-Trafficking and Labour Exploitation Unit (ATLEU), highlighting similar issues. A new area of concern for both ATLEU and Kalayaan was changes to the law which limit back-dated arrears regarding non-payment of the NMW to two years – discussed earlier in this chapter. ATLEU said that the introduction of fees in the Employment Tribunal together with the compulsory Acas conciliation scheme had also placed further barriers in the way of

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victims seeking to enforce the NMW. It added that this was especially damaging for those of limited means who do not qualify for fee remission. We noted earlier in the chapter the Ministry of Justice is carrying out a review of Employment Tribunal fees.

- 8.122** We have, however, received more positive news this year on actions aimed at helping this group of workers. The Government said that, following concerns voiced about the application of the family worker exemption within the NMW Act, it had reviewed the law and clarified the entitlement of migrant domestic workers to the NMW. Following changes in immigration rules under the Modern Slavery Act 2015 an immigration officer (when granting applications to leave or enter the UK) will now need to be satisfied that an employer will pay at least the NMW. It added that employers will have to commit to this in the relevant application forms and provide evidence to substantiate their claim.
- 8.123** The Government said that greater powers for Home Office case workers will mean that they should be satisfied that arrangements are as set out in the application. The employer should confirm to Home Office officials that the worker does not fall under section 2.2 of the NMW Act (and therefore is not exempt from paying the NMW). It concluded that any breach of the new immigration rules will allow the Home Office to take enforcement action and added that it had updated the NMW guidance to reflect this change. While these changes were welcomed by some stakeholders, ATLEU still thought the family worker exemption should be abolished on the basis that its original intention was to exempt those present on an au pair visa from the NMW, but this visa no longer exists.
- 8.124** As noted earlier in this chapter, in order to address the need for greater joined-up action across the spectrum of labour market enforcement the Government intends to create a new Director of Labour Market Enforcement to co-ordinate activities (across HMRC, the Gangmasters' Licencing Authority and the Employment Agency Standards Inspectorate), and provide a common view of risk and priorities drawn from shared intelligence.
- 8.125** However, a concern for us is a lack of HMRC action in this space with respect to migrant domestic workers. In the Government's written evidence (BIS, 2015h), it referred to high profile multi-agency operations it had undertaken, involving a wide variety of other agencies working with the Government to tackle NMW non-compliance alongside related offences including illegal working and modern slavery, focused particularly on migrant workers. These operations typically involve large numbers of officers from different agencies carrying out an intense schedule of visits, in an effort to find multiple forms of non-compliance. But there was no reference to promised targeted action by HMRC against employers of migrant domestic workers. However, in November 2015 (Evening Standard, 2015), the Government's anti-Slavery Commissioner announced that proposals were being drawn up for the Home Office, under which 'spot checks' would be introduced in homes where domestic migrant workers are employed, to help clamp down on exploitation of these workers (which may include non-payment of the NMW). The inspections, paid for by an increase in visa fees, were set to be carried out by an enforcement team charged with ensuring that migrant domestic workers are not mistreated.

8.126 We acknowledge that since our last report the Government has made some important progress in this area: that it has strengthened operation of visa rules and the NMW; that it intends to work in a more joined-up fashion across the spectrum of labour market enforcement in future; that it has carried out multi-agency operations focusing on the migrant worker population; and the Anti-Slavery Commissioner has announced new measures by the Home Office. Nevertheless there is still more that could be done including the targeted HMRC enforcement action promised last year; reviewing the application of the family worker exemption for this group; and – as set out above – reviewing the two-year limit on NMW arrears at ET.

Seafarers

8.127 As we have acknowledged in previous reports, the application of NMW regulations to seafarers is one of the more complex areas of minimum wage law. From the introduction of the NMW in 1999 our understanding had been that seafarers were covered by the minimum wage when they were employed to work on a ship while it is in the UK or its internal waters, regardless of where the ship is registered. In addition, our understanding was that a seafarer working on a ship registered in the UK must be paid the minimum wage wherever in the world that ship may be unless: all the work takes place outside the UK (and its internal waters); or they are not normally resident in the UK and the ship is outside the UK (and its internal waters). However, following a ruling by the Court of Appeal in 2011 the legal situation changed: it was possible that the NMW may be applied to workers on non-UK flagged ships where it could be shown they have a jurisdictional link with the UK.

8.128 For our 2015 Report, the LPC received evidence of extreme low pay among seafarers on routes between UK destinations, which warranted further investigation. The LPC encouraged the Government to do all it could to address these issues and to review how the NMW should apply to seafarers on ships working between UK ports.

8.129 In evidence this year the TUC said that there must be sustained and ongoing attempts to enforce the minimum wage, covering groups that are excluded from the full protection of the act, such as seafarers. It also called for technical changes like the creation of legal gateways to allow HMRC to exchange case information with other agencies including the Maritime and Coastguard Agency, which enforces the NMW for seafarers, in order to uphold the law. In its evidence the Rail, Maritime and Transport Workers' Union (RMT) referred to a long-established pattern of non-compliance and lack of enforcement of the NMW in the maritime sector and provided evidence of a number of ferry companies using a 'loophole' in the NMW and Equality Act legislation to pay less than the NLW to foreign workers, particularly for non-EEA workers but even for EU workers (Lithuanians and Poles). The RMT added that this affects migrant workers directly – evidence was provided of one ferry company operating in Scottish waters which paid as little as £2.25 an hour to its Indian and Russian seafarers – and UK workers indirectly through the undermining of pay rates. The RMT advised us that it conservatively estimated that 8,300 seafarers' ratings are working in the UK shipping industry for rates below the current NMW of £6.70 per hour, though we have not validated this claim.

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- 8.130** In terms of movement on this issue, the RMT said that, building on the work of the Equality Act Working Group (convened under the last Government to look at the operation and effectiveness of the Act), a sub-group on pay would be formed in the coming months and this would include discussion, between maritime unions, employers and Government departments, of the enforcement approach for seafarers and the NMW. The RMT concluded that protection against nationality based pay discrimination should be extended to all seafarers, as it said the original legislation intended and which the Government commissioned Carter Report recommended in 2010.
- 8.131** In its evidence to us this year the Government (BIS, 2015h) told us that it is committed to improving the regulation of the NMW, where appropriate, to take into account complex situations involving low-paid workers. The Government referred to its ongoing review of the Equality Act 2010 and added that it will shortly be publishing updated guidance material regarding seafarers. The guidance would contain examples of scenarios when the Equality Act 2010 and UK NMW are applicable to seafarers (either working in the UK or on a UK ship) and included situations when a seafarer may be paid at a different rate to the UK NMW.
- 8.132** The application and enforcement of the NMW within the maritime industry is a complex issue. However, there is evidence of extreme low pay and the Government has said it is committed to improving the regulation of the NMW, where appropriate, to take into account complex situations involving low-paid workers. We welcome that some progress is being made by the Government in this area, such as the development of updated guidance material regarding seafarers; and the new sub-group on pay, consisting of employers, unions and Government representatives, with discussions to include the enforcement approach for seafarers and the NMW. We encourage ongoing dialogue and await the outcome of the ongoing review of the Equality Act 2010 with interest.

Agricultural Workers

- 8.133** The Agricultural Wages Board (AWB) in England and Wales was abolished in October 2013 by the Enterprise and Regulatory Reform Act 2013, bringing agricultural workers in England and Wales within the scope of the National Minimum Wage Act 1998. Agricultural workers in Scotland and Northern Ireland remained subject to their own respective wages board.
- 8.134** The Welsh Government opposed the abolition and argued that the AWB's functions were a devolved matter, passing legislation to carry forward wages board functions in Wales. The issue was referred to the Supreme Court, which in June 2014 found in the Welsh Government's favour. The Agricultural (Wales) Act 2014 came into force on 30 July 2014. This provides that the Agricultural Wages Order 2012, which previously set out terms and conditions for agricultural workers in England and Wales, continues to apply in Wales pending the formation of a new wage setting body, the Agricultural Advisory Panel for Wales.
- 8.135** The Welsh Government provided an update on this issue in early February. A new wages order made under the Agricultural Sector (Wales) Act 2014 was to come into force on 26 February 2016. Pay rates under the new order would all be above the current NMW ranging from £6.72 an hour (Grade 1) to £9.97 per hour (Grade 6). In addition, the new Agricultural Advisory Panel was expected to be fully operational by spring 2016.

- 8.136** In its evidence to us the National Farmers Union (NFU) commented that post abolition of the AWB, the industry continues to adjust to the NMW framework and make necessary changes as required. The NFU pointed out that recent research into levels of pay in the agricultural sector, carried out by Farmers Weekly in association with recruitment consultancy De Lacy Executive, suggested that agriculture compared favourably in terms of pay relative to average salaries.
- 8.137** With reference to the different arrangements in England and Wales, the NFU requested clarity and further guidance for cross-border farmers, whose workers may spend part of their time in England and part of their time in Wales. The NFU added that it would like to see the UK Government work with the Welsh Government to ensure that farmers were not unfairly disadvantaged as a result of the different approaches.
- 8.138** While welcoming the new Agricultural Advisory Panel in Wales, Unite continued to express concerns about the impact of the abolition of the AWB in England, on which it had carried out a survey of workers. More than a third of those responding had been covered by the AWB, but of these only 56 per cent had had a pay rise since 1 Oct 2013 – the date when abolition took effect in England. It found that the median pay rise was 2 per cent – lower than the whole economy figure. It called for the Low Pay Commission to carry out specific monitoring of pay and conditions in the agricultural sector across the UK as well as checking HMRC’s capacity and resources to carry out enforcement work.
- 8.139** We note continued trade union concern about the changed arrangements and level of wage protection which now exists for agricultural workers in England. We will consider in 2016 whether the time is now right to commission independent research to measure the impact that the abolition of the AWB in England and Wales has had on pay and conditions in the agricultural sector and any implications for the NMW and NLW.
- 8.140** We will continue to monitor the issue of compliance and enforcement in this and other low-paying sectors closely, to ensure that workers continue to receive the promised wage protection. With respect to the NFU’s concerns regarding the need for additional clarity and guidance for cross-border workers in England and Wales, we would ask that the Government consider this issue further and discuss with the Welsh Government whether current guidance needs revision.

Employer-provided Accommodation and Treatment of Other Deductions

- 8.141** The only benefit-in-kind which can count towards payment of the NMW is the accommodation offset – it is limited to a daily maximum, currently set at £5.35. This means that employers providing accommodation to minimum wage workers – often in the agriculture or hospitality sectors – can reduce minimum wage pay by this amount, but no more. Evidence this year raised a familiar set of issues including whether other benefits should count towards pay, and the level of the offset, but also highlighted the NLW as a new consideration – in particular, whether it meant a step change in the value or a change in structure was justified.

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- 8.142** The Commission formally considered the operation of the offset in 2006 and then again, via a review, in 2013. On both occasions we faced the same underlying policy issue: how to encourage supply of mutually beneficial employer-provided accommodation while ensuring protection of workers against exploitation. Some employers argued that the low level of the offset meant it was unattractive to offer accommodation, disadvantaging them and individuals who might struggle otherwise to find housing. These voices tended to argue that, where employer-provided accommodation was optional, workers should be free to agree voluntarily to higher deductions from pay, without the offset limit operating. This would also prevent employers who were separately landlords getting unfairly caught by the measure.
- 8.143** The Commission agreed that there was, in principle, a distinction between accommodation required to be taken as part of the job and that was provided as a separate service, which workers could choose to use. But – in both reviews of the offset – we could identify no enforceable test of free choice in accommodation. In the absence of such a test, changing the offset in this way could create a loophole in the minimum wage, particularly for vulnerable workers. It risked enabling unscrupulous employers to avoid a higher pay floor through increasing effective rents, with workers dependent for both employment and accommodation in a weak position to disagree. As we said in 2013: “obtaining a signature on an employment contract or some separate agreement, for example, does not necessarily demonstrate a genuine free choice, nor that the offers of accommodation and work are really independent of each other.”
- 8.144** The outcome was that we recommended that: the offset should remain the only permitted benefit-in-kind that can count towards payment of the NMW; there should only be one rate; and that it should apply irrespective of whether the worker has a choice over taking the accommodation. Our view was that there remained a strong underlying rationale for an accommodation offset. The LPC’s role was to judge its appropriate level. We said we intended to recommend staged increases in the offset towards the hourly adult rate of the NMW when economic circumstances meant the real value of the NMW was tending to rise, with a view to encouraging the mutually beneficial provision of accommodation.
- 8.145** The Government accepted these recommendations. We, in turn, have begun to raise the value, last year recommending that the accommodation offset be increased by more than the adult rate: 5.3 per cent (27p) to £5.35 a day from October 2015. Our recommendation on the level of the offset from October 2016 is in Chapter 7.

Stakeholder Views on the Offset

- 8.146** This year we received a range of views regarding the effectiveness of the accommodation offset and the rates that should apply in future.
- 8.147** Among employers, the ALP and the British Hospitality Association (BHA) both favoured increasing the offset, on the basis that it did not reflect the true cost of accommodation. The ALP advised us that the majority of its members no longer provided accommodation for their workers, as it was no longer financially viable for them to do so. The Federation of Small Businesses (FSB) said that the accommodation offset was not well understood by small firms, and added that awareness of the offset was relatively low. The ALMR thought the

accommodation offset should be increased by more than the rate of inflation to reflect significant house price inflation and years of real-terms reductions. The NFU said that it would welcome staged increases in the level of the accommodation offset, although it added that if this were to happen as a result of an increase in the NMW, its support for this proposal would be balanced against its view that the NMW should only be increased by 2.0-2.5 per cent.

- 8.148** On the trade union side there were differing views. Unite said that it would support staged increases towards the value of the adult rate of the NMW when economic circumstances mean that the real value of the NMW is tending to rise – supportive of the Commission’s approach. Usdaw, in contrast, thought that the offset should not be increased in real terms. It said that the Commission’s decision in 2015 to increase the offset by 5.3 per cent in contrast to the 3 per cent NMW uprating ran contrary to the original concept of the offset, which recognised low accommodation costs for employees, as a benefit to employers in having a workforce, in effect ‘on-call’. Usdaw therefore urged the Commission to ensure that the accommodation offset was increased by no more than the general increase of the NMW.
- 8.149** The Rail, Maritime and Transport Workers’ Union (RMT) continued to oppose the use of the accommodation offset in its sectors. It pointed out that a seafarer on the NMW, working a two-week tour on passenger ferry routes in the UK, would lose £74.90 in total under the accommodation offset. While employers benefit from that amount for on-board accommodation they are legally obliged to provide for seafarers on the muster list and who therefore form part of the safety regime on a vessel, whether workers are on duty or not. The RMT added that the accommodation offset increased the overall cost of housing to low-paid seafarers.
- 8.150** Some stakeholder also referred to the impact of the NLW. The BHA favoured a two-tier approach, with a higher accommodation charge applying for workers aged 25 and over earning the National Living Wage. The CBI took a similar position, recommending increasing the accommodation offset to the hourly rate of the NLW to help offset some of the increase in the higher wage bill, whilst also better reflecting the true cost employers bear when providing housing for their employees.
- 8.151** By contrast, in its assessment of the accommodation offset, the Anti-Trafficking Labour Exploitation Unit (ATLEU) said that the measure was working well, adding that the offset was simple and easy to understand and implement and could be very easily calculated and applied. Consequently, it argued against complicating this part of the regulations, which it said would lead to abuse by exploiters of victims and add complexity and uncertainty for employers and employees.
- 8.152** We received some tentative evidence that the higher level of the offset could be making a difference. The Association of Licensed Multiple Retailers (ALMR) thought the increases since 2013 had resulted in an appreciable increase in the number and rate of staff being provided with accommodation by their employer – from 1.4 per cent in its 2013 survey (conducted before the increase in October 2013) to 2.3 per cent in the 2015 survey. Few respondents to our on-line survey provided accommodation and made use of the offset (just

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33 out of 157 who answered the question). When asked if the increase in the value of the offset had improved accommodation for workers, 7 said yes and 22 said no.

Treatment of Other Deductions Post National Living Wage

8.153 Some stakeholders have raised the question of how the introduction of the NLW affects salary sacrifice arrangements where, currently, employers cannot use them if it means that an employee's earnings fall below the NMW. The CBI proposed that the adult rate should continue to apply – even for NLW workers. It argued requiring cash earnings after salary sacrifice to be above the NLW would reduce National Insurance relief for employees and employers (who often pass on some of this benefit to employees) as well as employee access to other benefits like childcare vouchers. It advised that the administrative burden of taking workers currently paid above the NMW but below the NLW out of salary sacrifice, particularly after auto-enrolment, would also be significant.

Data on the Offset

8.154 The best available proxy for measuring possible offset use is provided by the Labour Force Survey (LFS) which contains data on tied accommodation. This has limitations in that it excludes non-tied and some types of tied accommodation (such as some hotels) as well as providing no indication of whether the offset is actually used. Notwithstanding these weaknesses, an analysis of this source indicates that the proportion of workers in tied accommodation has remained stable since 2001 at about 1 per cent: in the third quarter of 2015 there were 264,000 workers in tied accommodation. Over the long-term, it is clear that the composition has changed: the number of workers in tied accommodation in agriculture, hospitality and social care has declined, while the number of retail workers in tied accommodation has increased from around 6,000 in 1998 to 17,000 in the third quarter of 2015, and is now similar to the number of tied workers in agriculture (17,000). However, since the third quarter of 2014 (the period of larger increases in the offset), the decline in the number of agricultural workers in tied accommodation appears to have slowed, remaining around 17,000 over the year.

8.155 Data offer little evidential basis in relation to the possible impact of the NLW. Workers aged 25 and over make up the majority of those with tied accommodation (92 per cent in the third quarter of 2015). But these estimates may under-estimate their occupation of tied accommodation by younger workers – for example, as we have noted above some establishments in hospitality may be excluded from LFS survey coverage. Moreover, the proportion of 21-24 year olds in tied accommodation has increased year-on-year for the last two years, rising from 5.2 per cent in the third quarter of 2013 to 7.1 per cent in the third quarter of 2015, equivalent to a 37 per cent increase over the period. This has taken place alongside a slight fall among workers aged 25 and over. It is not possible to establish how much of the increase for 21-24 year olds reflects employer or employee choice. We will monitor this trend.

Commission View

8.156 In summary, this year we have once again received a variety of views on the offset. Employers' suggestions included: staged increases in the level of the offset towards the

NMW rate (or NLW); increasing the offset to the hourly rate of the NLW; and a two-tiered approach, whereby employers can charge a higher accommodation rate for workers aged 25 and over. On the trade union side some voices supported the Commission's position of staged increases towards the value of the NMW when economic circumstances meant the real value of the NMW was tending to rise. Others called for us to limit the recommended offset increase to no more than the general increase of the NMW or advocated that the offset be removed altogether.

- 8.157** Overall, we judge that the available evidence continues to support our approach to the accommodation offset as established at the conclusion of our 2013 review. The underlying policy constraint is unchanged from this time: there remains no robust test of free choice of accommodation. More broadly, we are still implementing our commitment to higher increases, on which it is too early to reach a judgement (this notwithstanding some emerging evidence this year that higher increases have been helpful to provision).
- 8.158** We will consider future change once the NLW is well established and there is more data available. One argument against the view of stakeholders calling for the offset to be linked to the NLW is that a sharp increase in the offset above the NMW would have a disproportionate impact on those aged under 25. More broadly, there is substantial headroom before the offset catches up with the adult rate, so staged increases still look the most sensible way forward. On structural change such as a two-tier offset, we remain concerned about complexity: a two-tier rate would be harder to understand, and to enforce.
- 8.159** We have seen limited evidence to support employers being able to use salary sacrifice arrangements for NLW workers as long as cash earnings do not fall below the NMW (rather than the NLW) – this would risk serious compliance issues, particularly for vulnerable workers.

Conclusion

- 8.160** We strongly welcome the extra funding provided by the Government for NMW enforcement, alongside a further strengthening of the penalties for those employers found not to have complied with the NMW. And we applaud the recent very substantial increase in the level of arrears of NMW pay identified for workers by HMRC – a step change in results achieved. However, we have also identified areas where even more could be done to improve the compliance and enforcement framework.
- 8.161** A particular priority is better analysis and understanding of the real level of NMW non-compliance so that we can be sure the areas of highest incidence are targeted for both awareness-raising and enforcement. We also recommend a formal public protocol, including providing all possible feedback, for HMRC handling of third party whistleblowing on breaches of the NMW. This is critical to encouraging an increased flow of intelligence on possible breaches of the minimum wage, particularly in circumstances where workers themselves are afraid to come forward. Another priority is action to address uncertainty over hours – an issue which is, in our view, one of the underlying causes of disagreement over pay levels. Workers need to know the basis for their pay in order to be able to check and challenge any errors.

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This underpins a recommendation that the Government reviews the current obligations on employers regarding provision of payslips and considers introducing a requirement that payslips of hourly-paid staff clearly state the hours they are being paid for.

8.162 We also urge action by the Government in a number of other areas:

Compliance Strategy

- To carry out an overall review and evaluation once the new Director of Labour Market Enforcement is in place.

Case Handling

- To monitor closely the take-up of arrangements incentivising compliance to ensure that an improved flow of arrears to workers is not at the expense of providing a route for serious offenders to dilute the sanctions they would otherwise face.
- So that we and others can better understand the scale and nature of the different types of work being undertaken by HMRC we ask that it provides additional information in its future reporting, on how many staff are deployed in each area of casework (on demand-led, targeted and other work streams) and the respective proportion of overall spending involved.

Naming

- To maintain a list of all employers named under the Naming Scheme on the BIS website and that each name remains on the list for a suitable period of time. We suggest this is for not less than one calendar year from the date of the original listing.

Tribunal Awards

- To consider how workers, particularly those facing extreme exploitation, may continue to receive the previously available level of arrears of NMW pay and not limited to two years.

Awareness and Guidance

- To evaluate the impact of its minimum wage awareness campaigns to provide better evidence of the effectiveness of these activities.
- To develop sector-specific guidance and address gaps in the existing information.

Social Care

- To maintain HMRC targeting of the sector including monitoring closely how the NLW is being complied with.
- In order to obtain a better idea of the level of non-compliance occurring in social care, and other sectors, that as well as the strike rate for cases, HMRC publishes information on the number of workers covered in its investigations and in what proportion of these wages are found to be NMW non-compliant.

Apprentices

- To carry out another Apprentice Pay Survey in 2016.
- To develop better cross-referral between the SFA and HMRC such that any issues with non-payment prompt consideration of quality, and any issues identified in quality are considered in HMRC's risking for non-compliance work.
- To monitor the quality of provision going forward as a non-compliance risk, and keep us up to date with the development of the new body monitoring the quality of apprenticeships (Institute for Apprenticeships).

Employment Status

- To target the arts and entertainment industries, (particularly film schools and TV) in future to improve NMW compliance.
- To continue to monitor compliance and target appropriate enforcement resources in the hotel, and broader cleaning sector, and keep a close eye on wider trends as the NLW is introduced.

Migrant Domestic Workers

- To consider taking additional actions including the targeted HMRC enforcement action promised last year; reviewing the application of the family worker exemption for this group; and reviewing the two-year limit on NMW arrears at Employment Tribunal.

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. In addition to the organisations below 554 people responded to our snap shot on-line survey.

3 shop bakery business London/ Essex borders
Acorns Playgroup
Adopt an Intern
AgingCare Group
All Care (S. Wales) Ltd
Angel Human Resources
Anti-Trafficking and Labour Exploitation Unit
Asda Stores Ltd
Ashley Care Ltd
Association of Colleges
Association of Convenience Stores
Association of Directors of Adult Social Services
Association of Employment and Learning Providers
Association of Labour Providers
Association of Licensed Multiple Retailers
Association of School and College Leaders
Avocado Media
Bank of England
Barchester Healthcare
Beefeater
Best Western Strathaven Hotel
Better Clean Services
Birkdales Homes UK Ltd
Birmingham Law Society
Blackpool and Fylde College
British Association of Landscape Industries
British Beer & Pub Association
British Chambers of Commerce
British Furniture Manufacturers Ltd
British Hospitality Association
British Hospitality Association (Scotland)
British Poultry Council
British Retail Consortium

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British Youth Council
Broadcasting Entertainment Cinematograph & Theatre Union (BECTU)
BUPA Care Homes Ltd
Business in Licensing; Sport Group and Gambling Business Group
Busy Bees Childcare
Care England
Care Quality Commission
Carewatch Ltd
Castle View
CBI
Chardon Group
Chartered Institute of Payroll Professionals
Chartered Institute of Personnel and Development
Children in Scotland
Church of Scotland
Coastline Cleaning Services
Columbo Food and Wine, Hounslow
Communication Workers Union
Communication Workers Union, NI
Cornwall Council
Costa Coffee
Craft Bakers Association
Craig-y-Don Playschool and After School Club
Downderry Stores
Dr Kevin M O'Sullivan
East Midlands Chamber (Derbyshire, Nottinghamshire, Leicestershire)
EEF, the manufacturers' organisation
EM News Distribution
Equality and Human Rights Commission
Equity
Essex Chambers of Commerce
Ethan Hull Ltd
Ethical Trading Initiative
Federation of Small Businesses
Federation of Small Businesses, NI
Federation of Wholesale Distributors
Flyde Fresh & Fabulous
Food and Drink Federation
Franklins International Ltd
Gateshead Council
GLL.org
GMB
Heritage Leisure Group
HM Government
Home Instead Senior Care

Hospitality Ulster
Hotel Employers Association
Incomes Data Services
Independent Children’s Homes Association
Independent Health and Care Providers
Institute for Fiscal Studies
Institute of Directors
Intergenerational Foundation
Irish Congress of Trade Unions
J Myatt & Co
John Lewis Partnership
Joseph Rowntree Foundation
Kalayaan
Keinton Stores
Kitchenmaster (NI) Ltd
Labour Research Department
Laurence J Betts Ltd
Leicester and District Trades Union Council
Leicester College
Lifeways Group
Local Government Association
London Borough of Newham
Marilyn Kimayoung
Mazars
Meadow Bank Care Home
Mediline Nurses & Carers Ltd
Merdyn Day Nursery
MHA
Mitch Development
Monaghan Mushrooms Group
Money Advice Scotland
Mrs Johnsons Emporium
National Care Association
National Day Nurseries Association
National Farmers’ Union
National Federation of Retail Newsagents (NFRN)
National Hairdressers Federation
National Institute of Economic and Social Research
National Union of Journalists
National Union of Students (NUS)
Nature Trails Day Nursery
Neath Care Ltd
Nevin Economic Research Institute
NISA Local, Northfleet
Noah’s Ark Childcare Centres

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North Ayrshire Council
Northern Ireland Hotels Federation
Office for Budget Responsibility
Oxfam
Oxfordshire County Council
Phoenix Training
Place UK Ltd
Portland Hotels, Scotland
Premier Inn
PwC LLP (PricewaterhouseCoopers)
Queensbury Hotel
Queensferry Hotels, Scotland
Rail, Maritime and Transport Workers' Union
Rascals Day Nurseries
Reading Borough Council
Recruitment & Employment Confederation
Redefine BDL Hotels Group
Registered Nursing Home Association
Resolution Foundation
Rights at Home UK Ltd
Risedale Group
Road Haulage Association
Rural Shops Alliance
Sanctuary Group
Savoy Park Hotel, Ayr
Scottish Bakers
Scottish Council for Development and Industry
Scottish Fair Work Convention
Scottish Government
Scottish Retail Consortium
Scottish Social Services Council
Scottish Water
SELECT – Scotland's Electrical Trade Association
Social Enterprise Scotland
SPDNS Nurse Care Ltd
St Columba's Church Day Centre
Sue Ryder
The British Security Industry Association
The Business Services Association
The Gleneagles Hotel
The Prince's Trust
Thurlestone Hotel
Trades Union Congress
UK Cinema Association
UK Commission for Employment and Skills

UK Fashion & Textile Association
Union of Shop, Distributive and Allied Workers
UNISON
Unite
United Kingdom Home Care Association
Universities and Colleges Employers Association
University of Glasgow
Valentina Recla
Visage Hair Salon, Swansea
Voluntary Organisations Disability Group
Wales Pre-school Providers' Association
Welsh Government
Whitbread Plc
White Horse Child Care Limited
XpertHR
Your Consortium Ltd

Appendix 2

Research Overview for the Spring 2016 Report

- 1** The Low Pay Commission (LPC) was set up in 1997 to make recommendations to the Government on the introductory rate of the National Minimum Wage (NMW). As part of gathering evidence for that decision, we commissioned several qualitative and quantitative research studies to investigate the potential impact of introducing a minimum wage. Our evidence-based approach has continued since and we have now commissioned a total of over 140 research projects. We have been fortunate to engage with many of the leading researchers in this area and have made great use of their expertise. We are grateful to all those who have contributed over the years. In each of our previous reports we have provided a summary of the findings of our recently commissioned research. As well as doing so again, we also summarise recent independent research on the NMW that has some relevance for those previous findings.
- 2** Bernini and Riley (2016) explored the relationship between the NMW and productivity. In general the existing evidence suggested that there was a small positive association between minimum wage increases and productivity. There was also evidence that suggested the strength of this association might vary by category of worker or different type of firm. They attempted to identify various channels through which productivity might be enhanced and investigated them further – capital/labour substitution; investment; occupational composition; outsourcing; recruitment; training; discretion; effort, and absenteeism. They used firm-level, workplace-level and employee-level data to explore these channels.
- 3** At the firm-level, using data from the Annual Respondents Database (ARD) and Financial Analysis Made Easy (FAME), they found no robust evidence that the NMW affected the capital/labour ratio or investment. Using workplace data, the Workplace Employment Relations Survey (WERS), they found no evidence that the NMW had affected training or recruitment policy. However, they did find some evidence of an impact on the occupational structure of the workforce. That is, firms affected by the NMW tended to reduce their share of workers in unskilled routine occupations. They also found some limited evidence of an impact on outsourcing. Investigating employee-level channels using WERS and the Labour Force Survey (LFS), they found no evidence of a positive impact of the NMW on training, the degree of autonomy, absenteeism or their proxies for effort.
- 4** In conclusion, there appeared to be little evidence for many of the hypothesised reasons that the minimum wage might drive higher productivity. There appeared to be no role for capital or investment although they found some impact on reductions in employment of unskilled workers. However, non-wage costs might play a role in driving higher productivity. There could also have been some substitution that has not been measured with workers working fewer hours (employers had incentives to employ a few part-time workers rather than a full-time one).

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- 5** London Economics (2016) set out to: examine the impact of the minimum wage on hourly earnings, the bite and wage differentials; investigate whether the impact of the NMW on earnings varies according to industry, size of firm, and age; assess the extent to which the NMW has become established as the 'going rate'; and investigate whether wages and differentials reflect skills and productivity differences at sector level.
- 6** Its descriptive analysis findings on the bite of the NMW, unsurprisingly reflected those published in our previous reports. The bite had increased across the economy, although the rate of increase had slowed during the recession and subsequent recovery (their analysis only covered up to 2013). The bite for 16-17 year olds had continued to rise while the bite for 18-20 year olds had fallen in recent years, albeit remaining higher than prior to the recession. The bite was greatest among small firms, resulting in an increasing prevalence of minimum wage jobs in those firms. Young people had also become more likely to be employed in small firms since the onset of recession in 2008 but the use of the adult rate for young people had declined. They had become more likely to be paid at lower rates (between the youth rates and the adult rate). This suggested that employers may be sensitive to changes in the wages of young people.
- 7** Extending the work of Dickens, Riley and Wilkinson (2012), to focus on the effects of the NMW on earnings during and after the recession, the study used the Annual Survey of Hours and Earnings (ASHE) to compare the wages of those in minimum wage jobs with those workers paid just above the NMW. It found that NMW workers had real wage increases of around 2-3 per cent more than those paid just above the NMW but that the recession had dampened this effect in non low-paying sectors. The dampening effect of the recession was greater on small firms than on large firms.
- 8** The research concluded by assessing the impact of the NMW on productivity and wage differentials. Using similar methodology and data sources to previous work by Dickerson and McIntosh (2010 and 2011), London Economics (2016) attempted to estimate age-wage and age-productivity profiles. It found that the age-productivity profile was similar to the age-wage profile, which increased significantly with age. It concluded that younger workers appeared 'underpaid' relative to workers aged 30-49 but not compared with older workers (those aged 50-59) or with those aged 21-29. The productivity-wage gap coefficient for 18-20 year olds suggested that 16-17 year olds were 'overpaid' relative to their productivity contribution.
- 9** In contrast, restricting the analysis to the low-paying sectors, the study found that the productivity-wage gap coefficients suggested that younger workers were 'underpaid' relative to their productivity when compared with 21-29 year olds, but 'overpaid' relative to their productivity when compared with 30-59 year olds – thus providing some support for a lower wage for young people than adults.
- 10** The research also provided some tentative evidence that might support some productivity justification for the 25 and over age structure of the National Living Wage (NLW). It showed that the relative wages of those aged 21-24 were greater than the relative productivities when compared with those aged 25-29.

- 11** However, there was some concern about measurement and spillover effects. Job switchers might be more common in the treatment or control group. There might be spillovers on the age-productivity profile and young people might have an effect on productivity at older ages if they were complements rather than substitutes for older workers.
- 12** Separate to our commissioned work, Brewer, Crossley and Zilio (2015) have conducted research in the last year that raises some issues about one of the main methodologies used to assess the impact of minimum wages on individual employment probabilities – difference-in-difference regression techniques. The research on the NMW had tended not to find any detrimental effects on employment. Their research suggested that this conclusion may partly be a function of the econometric technique, which has low power to detect small significant effects. They tried to show this by replicating a previous study of the impact of the NMW on employment – Bryan, Salvatori and Taylor (2013) – and suggested four areas where the analysis could be strengthened: using tests of the correct size; reporting confidence intervals; converting regression co-efficients into meaningful economic concepts; and calculating minimum detectable effects.
- 13** Error terms were likely to be correlated and Ordinary Least Squares (OLS) estimates of standard errors were likely to be too small and would overstate the precision of the estimates. They proposed three solutions to overcome this problem: the clustering of standard errors; the aggregating of cells; or the use of a two-step estimator. In their replicated analysis they reported: confidence intervals, which were wide (and often straddled zero); calculated minimum detectable effects (which were large); and converted co-efficients into elasticities, arguing that elasticities were more meaningful and were comparable across studies.
- 14** They concluded that the difference-in-difference technique, while commonly used in minimum wage analysis, had very low power to detect the employment impact of the NMW. They suggested that – although we might be reassured that there were no large negative effects arising from the policy – we could not rule out reasonably-sized negative effects. They noted that difference-in-difference regressions on employment retention rates had been a popular research design since the pioneering work of Mark Stewart (2004a and 2004b). It was often not clear whether UK research using this methodology on individual data had clustered standard errors. But doing so would lead to large imprecision. Clearly, inference on the impact of the minimum wage was difficult when changes were small and national. There were also wider issues about the appropriateness of some research designs that were commonly used. Area-based analyses were likely more credible (though not without problems). Their future work would look at the research that uses geographical variation.
- 15** Dickson and Papps (2016) addressed the impact of the minimum wage on employment and hours by age. Their research investigated how the NMW had affected flows in and out of employment. Recent studies in the US and Canada have found that the minimum wage reduces both. Dickson and Papps (2016) used worker-level data from the ASHE, LFS and British Household Panel Survey (BHPS)/Understanding Society (USoc) to examine whether changes in the minimum wage affect different types of labour market transitions in the UK.

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- 16** Using the ASHE, they found evidence that the minimum wage reduces the likelihood of workers changing jobs, but not their likelihood of exiting employment. Similar results were found for the LFS and BHPS/USoc, with these datasets also indicating that the minimum wage reduced the likelihood of unemployed workers entering employment.
- 17** They also created a pseudo-panel from ASHE data to examine whether employers change hiring and separation rates for workers of a specific age when the cost of younger or older workers rose because of the minimum wage. Some evidence was found that employment of teenagers was positively related to the cost of hiring adult workers. This finding was consistent with the research by London Economics (2015), which had provided preliminary evidence that the LPC strategy of lower increases for young people relative to older workers during the recession had helped protect employment.
- 18** Overall, the results were consistent with the conjecture by Dube, Lester, and Reich (2014) that minimum wages reduced the likelihood of workers quitting. However, they also found evidence when analysing workers becoming eligible to higher rates of the NMW on their 18th and 21st birthdays that was consistent with the quality matching hypothesis proposed by Brochu and Green (2011 and 2013).
- 19** Drew, Ritchie and Veliziotis (2016) investigated the measurement of apprentice pay using the BIS Apprentice Pay Surveys (APS) and ASHE. The headline estimates of non-compliance were 20 per cent in 2011 and 30 per cent in 2012 but unpublished ASHE data for 2013 suggested much lower levels of non-compliance. The 2014 ASHE and the 2014 APS looked much better in terms of the quality of the data. Their previous analysis, Drew, Ritchie and Veliziotis (2015), found that non-compliance appeared greater for those who were not paid hourly and for those who were aged 19 and over and in their second year of apprenticeship (and thus entitled to the higher age rates). Regression analysis suggested that the probability of non-compliance was greater if the apprentice was: in the second year of an apprenticeship; new to the employer; worked long hours; and had an NVQ Level 2. The second year effect appeared to persist across frameworks.
- 20** In addition they conducted qualitative analysis involving focus groups with apprentices to shed light on the reasons for non-compliance. Focusing on apprentices in hairdressing and social care (two sectors with high levels of non-compliance) they explored apprentices' awareness of the Apprentice Rate and the NMW; pay composition; on and off-the-job training; employment contracts; experience of apprenticeship; and quality of work experience. The research suggested that apprentices had limited knowledge concerning their pay and hours; difficulty estimating training hours; little knowledge of the minimum wage; and high reliance on employers to pay them the right amount. The research is ongoing and future research will include semi-structured interviews with apprentice employers to shed light on whether employers understand the Apprentice Rate rules, including rules around the payment of training time; and how employers set the pay rate. We will report on the results of this research in our Autumn 2016 Report.

Future Research

21 In addition to that research, we have also commissioned three other research projects for our Autumn 2016 Report. Two of these have a focus on the introduction of the new National Living Wage in April 2016, while the other intends to provide a summary of previous findings on the employment effects of the NMW. The research projects will: analyse the impact of the NLW on pay settlements and pay structures; investigate the impact of the NLW on care homes; and provide a meta-analysis study of previous research on the impact of the NMW on employment and hours.

- **The Impact of the Introduction of the National Living Wage: A Study of Changes in Pay Settlements, Pay Structures and Age-related Pay.** Victoria Farrington, Ken Mulkearn and Louisa Withers (Incomes Data Research).
- **The Impact of the Introduction of the National Living Wage.** Steve Machin and Alan Manning (Centre for Economic Performance, London School of Economics and Political Science).
- **An Investigation Into the Impact of the Minimum Wage on Employment and Hours.** RAND Europe.

Table A2.1: Low Pay Commission Research Projects for the Spring 2016 Report

Project Title and Researchers	Aims and Methodology	Key Findings
<p>Exploring the Relationships between the NMW and Productivity</p> <p>Michele Bernini and Rebecca Riley (National Institute of Economic and Social Research)</p>	<p>Building on previous research conducted by Riley and Rosazza Bondibene (2013 and 2015), this project:</p> <ol style="list-style-type: none"> i. further explored the factors that contribute to the empirical relationship between the NMW and the productivity performance of businesses found in recent studies; ii. provided new evidence on the relationship between the NMW and firms' investment in capital and employers' training provision as well as links between the NMW and workers' discretion in performing their jobs; iii. examined the link between the NMW and capital labour substitution; and iv. investigated the relationship between the NMW and worker effort using information on establishments' use of NMW workers and measures of worker discretion and control. <p>The project examined the impacts of the NMW on various aspects of businesses, taking a similar approach to Draca, Machin and Van Reenen (2005 and 2011) and Riley and Rosazza Bondibene (2013 and 2015), including a difference-in-differences approach applied to firm-level data. In addition to two business data sets: the Financial Analysis Made Easy (FAME) and the Annual Respondents Database (ARD), they used the Workplace Employment Relations Survey (WERS) and the Labour Force Survey (LFS). They considered investment in capital and training, productivity, capital labour substitution, employment-provided training and workers' discretion in performing their jobs, and distinguished any impacts by firm size where possible.</p> <p>In comparison with Riley and Rosazza Bondibene (2013 and 2015) they made several improvements by:</p> <ol style="list-style-type: none"> i. extending their previous analysis to consider the ratio of investment to employment in the firm; and ii. utilising the WERS and LFS to examine the link between the NMW and workers' effort as well as employer-provided training. 	<p>The main findings of the research were:</p> <ul style="list-style-type: none"> ● The NMW led to increases in firms' average labour costs and these changes were associated with increases in average labour productivity in some firms. ● This confirms the previous findings from Riley and Rosazza Bondibene (2015) using a different sample and with different estimators. ● These average labour productivity effects are likely to have arisen through a combination of factors within the firm or for different reasons in different firms. ● They investigated these factors: capital/ labour substitution; investment; occupational composition; outsourcing; recruitment; training; discretion; effort, and absenteeism. ● Taken singularly, none of the specific channels investigated seem to play a major role in explaining the productivity effect.

Project Title and Researchers	Aims and Methodology	Key Findings
<p>An Examination of the Impact of the NMW on Earnings, the Bite and Wage Differentials</p> <p>Gavan Conlon, Rohit Ladher, Marguerita Lane, and Viktoriya Psycheva (London Economics)</p>	<p>The main objectives of this research were:</p> <ol style="list-style-type: none"> to examine the impact of the minimum wage on hourly earnings, the bite and wage differentials; to examine whether the impact of the NMW on earnings varies according to sector, size of firm, and age; to investigate the extent to which the NMW has become established as the 'going rate': and to investigate whether wages and differentials reflected skills and productivity differences at sector level. <p>Using both the Annual Survey of Hours and Earnings (ASHE) and the Labour Force Survey (LFS), it provided a descriptive analysis of the NMW and hourly earnings distribution over time and by sector, size of firm, and age.</p> <p>Difference-in-differences models were used to estimate the impact of the NMW on hourly earnings, bite and wage differentials. Fixed effects models investigated whether wages & differentials reflected skill/productivity differences by sector.</p>	<p>The main findings of the research were:</p> <ul style="list-style-type: none"> The average impact of the NMW upratings had been to increase wages for affected workers by an additional 2 percentage points compared with workers earning just above the NMW. These relative wage increases were dampened in the recession. The impact of the NMW upratings on wage growth was also positive for low-paying industries and the recession did not have the same (statistically significant) dampening effect. The impact of upratings on wage growth increased with firm size. The dampening effect of the recession was larger in small firms than in large firms. During the recession there was no NMW effect on wage increases in small firms. Over all periods and sectors, they found a productivity-wage gap that suggested that young people (aged 16-20) may be 'underpaid' relative to those aged 30-49, although they were 'overpaid' relative to 21-29 and 50-59 year olds. Restricting the sample to the low-paying sectors only, younger workers appeared to be 'overpaid' relative to their productivity when compared with workers aged 21-49. Additional analysis also suggested that 21-24 year olds appeared 'overpaid' relative to 25-29 year olds. <p>However, these results were not strong in a statistical sense, and further analysis needed to be undertaken to refine some of the model specifications, before clarifying the findings.</p>
<p>How the National Minimum Wage Affects Flows in and out of Employment: An Investigation Using Worker-level Data</p> <p>Matt Dickson and Kerry Papps (University of Bath)</p>	<p>This project investigated the impact of the NMW on employment and hours by age over the period 1997-2014. The analysis was conducted for workers aged 16-24 as well as for all workers aged 16 and over. The project had three main parts:</p> <ol style="list-style-type: none"> employment outcomes and policy changes; turnover rates; and substitution between age groups. <p>It provided a detailed analysis of how various changes to the minimum wage system (and the school leaving age in England) have affected the labour market outcomes of workers aged 16-24, including the impact of the freeze in the youth rates.</p> <p>By providing evidence of how the minimum wage has changed the level of flows into and out of employment, the study examined whether the findings of North American studies (Brochu and Green, 2011 and 2013, in Canada; Dube, Lester and Reich, 2014, in the US) could be replicated in the UK.</p> <p>The research made use of two main econometric approaches: an individual-level analysis, using both the Annual Survey of Hours and Earnings (ASHE) and the Labour Force Survey (LFS); and a novel pseudo-panel approach using ASHE. This provided a robustness check for previous studies commissioned by the LPC that have used industry-level or aggregate data.</p>	<p>The main findings of the research were:</p> <ul style="list-style-type: none"> Recent US and Canadian evidence suggests that minimum wage increases tend to reduce job turnover. Using individual data, they find evidence in the UK that is consistent with these findings. Increases in the NMW were found to reduce the likelihood of a worker leaving employment but they also reduced the likelihood that an unemployed person would enter employment. Most of the job separation effect was due to workers becoming less likely to change jobs rather than less likely to leave employment (suggesting factors other than the NMW are more likely to drive the decision to leave employment altogether). The reduction in the age of eligibility to the adult rate had led to a positive effect on turnover. Increases in particular NMW age rates were found to reduce employment in that particular age group. Further, they found that employment of 16-20 year olds rose relative to those aged 21-22 when the youth rates increased by less than the adult rate of the NMW between 2011 and 2013. Hence both average and relative costs of low-paid workers are important.

Project Title and Researchers	Aims and Methodology	Key Findings
<p>Understanding Apprentice Pay Hilary Drew, Felix Ritchie and Michalis Veliziotis (University of the West of England)</p>	<p>This project built on previous work conducted by the authors – Drew, Ritchie and Veliziotis (2015). That study provided a detailed analysis of the impact of the introduction of the Apprentice Rate on apprentice pay. It highlighted various concerns about the extent and reasons for the high degree of measured underpayment found. This study aimed to shed further light on these issues, as well as updating its previous findings to take account of new data. It provided:</p> <ul style="list-style-type: none"> ● A detailed analysis of the pay of apprentices. ● A descriptive analysis of the characteristics of apprentices. ● An assessment of the extent of underpayment of the NMW. ● An investigation into the reasons for underpayment. <p>They used ASHE 2014 and the BIS Apprentice Pay Survey (2014) to update their previous analysis, looking at the distribution of apprentice pay and assessing the extent of underpayment. In their assessment of pay and underpayment, they looked at differences by:</p> <ul style="list-style-type: none"> ● Those paid hourly and others (including weekly, monthly and annual); ● On- and off-the-job training hours; ● Apprentice framework (sector); and ● Duration of apprenticeship. <p>The study concluded by using focus groups of apprentices to shed further light on the potential reasons for non-compliance.</p>	<p>The main findings of the research were:</p> <ul style="list-style-type: none"> ● Very high rates of NMW underpayment in both the 2011 and 2012 Apprentice Pay Surveys. The headline rate was 16 per cent in 2011 and 23 per cent in 2012. Their estimates of underpayment using ASHE were much lower, just under 10 per cent. However, there was less information in ASHE about unpaid training hours and no information about apprenticeship level. ● Underpayment was much lower in the 2014 Apprentice Pay Survey and the 2014 ASHE. ● They found large differences between those paid hourly and others. ● They found much higher underpayment when apprentices undertook off-the-job training. ● In their regression analysis, they found that underpayment was more prevalent among those in their second year, those that had not previously been employed by their employer, and those who worked long hours. They found country effects but these disappeared when the data was adjusted to take account of framework (sectoral) composition. ● They concluded that any future investigation of underpayment should focus on new employees, those in the second year of their apprenticeship, and those not paid an hourly wage. They also thought that there should be an improvement in the knowledge of the incidence of on- and off-the job training, particularly aimed at those apprentices who claimed to receive zero training hours. ● Focus groups with apprentices in hairdressing and childcare found that apprentices had limited knowledge concerning their pay and hours; difficulty estimating training hours; little knowledge of the minimum wage; and high reliance on employers to pay them the right amount. This suggested that estimates of underpayment based on pay and hours reported by apprentices may lead to over-estimates of underpayment.

Appendix 3

Minimum Wage Systems in Other Countries

- 1** This year we have again assembled information on minimum wage systems in other countries with the help of British Embassies and High Commissions, and the Organisation for Economic Co-operation and Development (OECD). We thank them all for their continued assistance. While the UK's National Minimum Wage (NMW) is set in the context of the prevailing economic conditions in the UK, it is useful to look at how other countries operate their wage floors, both in terms of levels and structures.
- 2** This appendix provides the latest information on minimum wages in the basket of European Union (EU) and OECD countries we have monitored since the introduction of the NMW, including their levels and variation by age or for those undergoing training. This year we additionally include data for Germany which introduced a national minimum wage for the first time in January 2015.
- 3** In our 2015 Report we set out in more detail some of the policy and economic context to changes in minimum wages across the countries we looked at. We have not looked at this in detail this year, but there are still strong economic factors affecting countries' decisions about revisions to their minimum wages. It should be noted that countries have different uprating timetables and mechanisms and do not necessarily uprate their minimum wages annually. In addition to this appendix, Chapter 2 includes some detailed consideration of international rankings in relation to the National Living Wage (NLW).
- 4** Table A3.1 sets out the respective minimum wage values at the end of 2015 in each national currency (and how these have changed over the past year) as well as the values in sterling and in terms of purchasing power parity (PPP).
- 5** Nearly half of the countries we looked at experienced no increase in their minimum wage rates in 2015. For those countries that did increase their minimum wages, the UK's uprating of 3 per cent was one of the highest with only Canada (4.5 per cent) and New Zealand (3.5 per cent) introducing greater minimum wage increases. Consequently there has been a change in the position of the UK's minimum wage when its value is ranked against these comparator countries in sterling exchange rate terms, with the UK moving up from seventh to third highest behind Australia and France. However, in purchasing power terms the UK remains 'in the middle of the pack'. It should be noted that these comparisons were made using data for September 2015. Since then, the value of sterling has fallen against both the euro and the US dollar.

National Minimum Wage

- 6** We next look at countries where the minimum wage was frozen in 2015. In the US the federal minimum wage (FMW) continues to stand at \$7.25 an hour. However, while the FMW sets the floor, states, cities and local municipal authorities have discretion to set higher rates if they wish. As of November 2015, 29 states and the District of Columbia have minimum wages above the FMW. One of the highest profile examples is Seattle, which introduced a \$11 an hour minimum wage in April 2015 as a first step towards an objective of \$15 an hour by 2020. City of Seattle representatives say that it is too early to establish its effects on the local economy, but we understand that they have commissioned research into this issue and we await the results with interest. Other US cities, such as Los Angeles, have also adopted similar levels of minimum wages.
- 7** In Greece there has been no change to the minimum wage since 2012, when it was cut by 22 per cent under the terms of an international loan agreement. While the Syriza party had indicated during its election campaign in January 2015 that it wished to reinstate the minimum wage to its pre-2012 level, it did not do this after coming to power (as such a move would have violated the terms of Greece's bail-out agreement). Further, the minimum wage did not feature in Syriza's subsequent successful election campaign in September 2015.
- 8** In the Republic of Ireland, where the national minimum wage has been unchanged since 2011, the Government announced an increase in its national minimum wage in January 2016 from €8.65 to €9.15 an hour, following a recommendation from the new Irish Low Pay Commission.
- 9** Figure A3.1 shows how minimum wage rates have grown in each country since the NMW was introduced in the UK in 1999. In national currency terms, over this period only New Zealand has increased its minimum wage more than the UK. In PPP terms the UK has experienced larger increases than five countries.

Table A3.1: Comparison of Adult Minimum Wages, by Country, End 2015

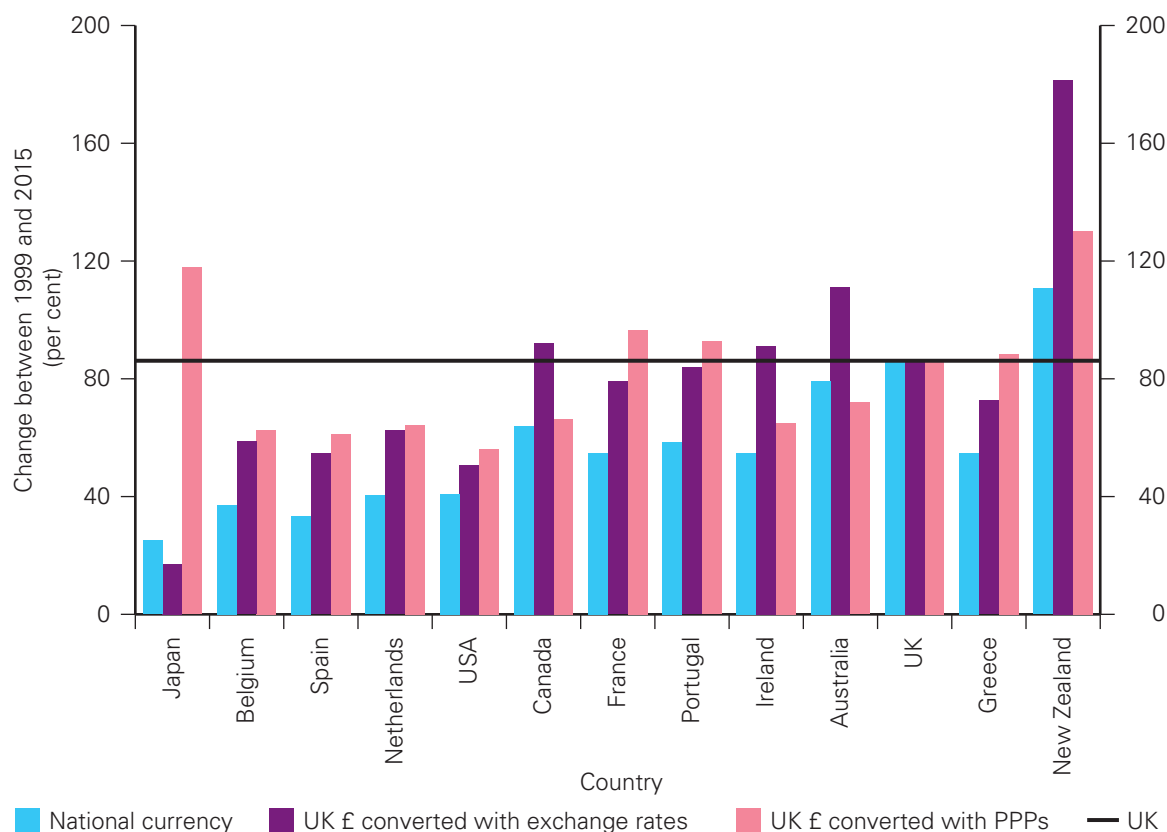
	In national currency expressed as hourly rate ^a	In UK £, using:		Date of last uprating	% Increase in national currency from 2014-2015	Age full minimum wage usually applies ^b
		Exchange rates	PPPs			
Australia ^c	AU\$17.29	8.02	8.71	Jul-15	2.5	21
Belgium	€ 8.67	6.39	7.70	Dec-12	0	21
Canada ^d	C\$10.86	5.35	6.52	^e	4.5	16
France	€ 9.61	7.08	8.63	Jan-15	0.8	18
Germany	€ 8.50	6.27	8.14	Jan-15	^f	18
Greece	€3.52 ^g	2.59	3.98	Feb-12	0	25
Ireland	€8.65 ^h	6.38	7.16	Jul-11	0	20
Japan ⁱ	JPY798	4.40	5.57	Aug-15	2.3	15/18 ^j
Netherlands	€8.70 ^k	6.41	7.63	Jul-15	0.8	23
New Zealand	NZ\$14.75	6.23	7.60	Apr-15	3.5	16 ^l
Portugal ^m	€ 2.91	2.15	3.52	Oct-14	0	16
Spain ^m	€ 3.74	2.76	4.05	Jan-15	0.5	16
UK	£6.70	6.70	6.70	Oct-15	3.1	21
US	US\$7.25 ⁿ	4.79	5.77	Jul-09	0	20

Source: British Embassies and High Commissions. Low Pay Commission (LPC) calculations of country minimum wage rates in pounds sterling using exchange rates and PPPs. PPPs derived from Comparative Price Levels (CPLs), OECD Main Economic Indicators, September 2015. Exchange rates, Bank of England monthly average spot exchange rate, September 2015.

Notes:

- a. For countries where the minimum wage is not expressed as an hourly rate, the rate has been converted to an hourly basis assuming a working time of 8 hours per day, 40 hours per week and 173.3 hours per month.
- b. Exemptions and special rules apply in many cases. For example, in France and the US the full adult rate applies to young workers with a tenure of more than six and more than three months respectively.
- c. The Australian Federal National Minimum Wage Order, effective from first pay period on or after 1 July 2015.
- d. Weighted average of provincial/territorial rates.
- e. Date of last uprating varies between provinces.
- f. Prior to January 2015 Germany did not have a national minimum wage.
- g. Minimum hourly rate for 'employees'. Different hourly rate operates for 'blue collar' workers.
- h. The Irish Government announced in July 2015 that from January 2016 the national minimum wage would rise from €8.65 to €9.15 an hour.
- i. Weighted average of prefectural rates.
- j. Those aged 15-17 are entitled to the regional minimum wage. Those aged 18 and over are entitled to the sectoral minimum wage.
- k. Excludes 8 per cent supplement for holiday pay. Minimum wage based on a 40 hour working week. There are different minimum wage rates for those working a 36 or 38 hour week.
- l. For all employees aged 16 and over, who are not either on the training minimum wage or the starting out minimum wage.
- m. Not including annual supplementary pay of two additional months of salary for full-time workers.
- n. Federal minimum wage. States, cities and local municipal authorities have discretion to set higher rates if they wish.

Figure A3.1: Changes in Adult Minimum Wages, by Country, 1999-2015



Source: British Embassies and High Commissions. LPC calculations of country minimum wage rates in pounds sterling using exchange rates and PPPs. PPPs derived from CPLs, OECD Main Economic Indicators, November 1999 and September 2015; and exchange rates, Bank of England monthly average spot exchange rate, November 1999 and September 2015.
 Note: Figures for Ireland are from 2000 when its minimum wage was introduced.

- 10 Figure A3.2 shows that between 1999 and 2015 the NMW in the UK grew on average by 4.0 per cent a year. This was higher than the annualised growth in the national currency values of all the other countries’ minimum wages apart from New Zealand. Since 2007, the NMW in the UK has increased at a slower rate (on average 3.3 per cent a year). However, this rate of increase is still higher than seven comparator countries over that period.
- 11 In PPP terms, three countries (France, Japan and New Zealand) have had higher average increases than the UK between 1999 and 2015. The depreciation of sterling between 2007 and 2009, when the pound lost around 25 per cent of its value, combined with relatively higher UK inflation, meant that since 2007 all our comparator countries, with the exception of Greece, have experienced higher average increases to their minimum wages in PPP terms than the UK. In Ireland there were no increases to its minimum wage in national currency terms from 2007-2015, and yet in PPP terms it increased by an average of over 5.8 per cent across the same period. This was due to a combination of (lack of) inflation and depreciation of sterling during this period.

Table A3.2: Youth Minimum Wage Rates as a Percentage of Adult Minimum Wage Rates, by Country, 2015

Country	Percentage at age 16	Percentage at age 17	Average percentage at ages 18/19
Australia^a	47.3	57.8	68.3 – 82.5
Belgium	70	76	82/88
Canada	100 ^b	100 ^b	100
France^c	80	90	100
Greece	87	87	87
Ireland	70	70	85
Japan	(regional) 100 (sectoral) 0	(regional) 100 (sectoral) 0	(regional) 100 (sectoral) 100
Netherlands^d	34.5	39.5	49
New Zealand^e	80-100	80-100	80-100
Portugal	100	100	100
Spain	100	100	100
UK	58	58	79
US^e	59	59	59

Source: OECD Minimum Wage Database, British Embassies High Commissions, and LPC.

Notes:

- a. These percentages apply to juniors only. Apprentices and trainees have different rates.
- b. All provinces except Ontario. Ontario's youth minimum wage is 94 per cent of the adult minimum wage.
- c. For France and the US, the reduced rates apply to young workers with a tenure of fewer than six months and three months, respectively.
- d. Based on a working week of 40 hours. Different percentages apply for a 38 or 36 hour week.
- e. All employees aged 16 and over are entitled to the adult minimum wage. Except for new entrants and employees to whom the training minimum wage applies. The training minimum wage applies to employees aged 16-17, who have not completed six months' continuous employment with their current employer. Employees aged 18-19, who have received unemployment benefit for more than six months, receive the training minimum wage until they have completed six months work for a single employer, after which they are paid the adult minimum wage. The training wage also applies to apprentices.

International Work

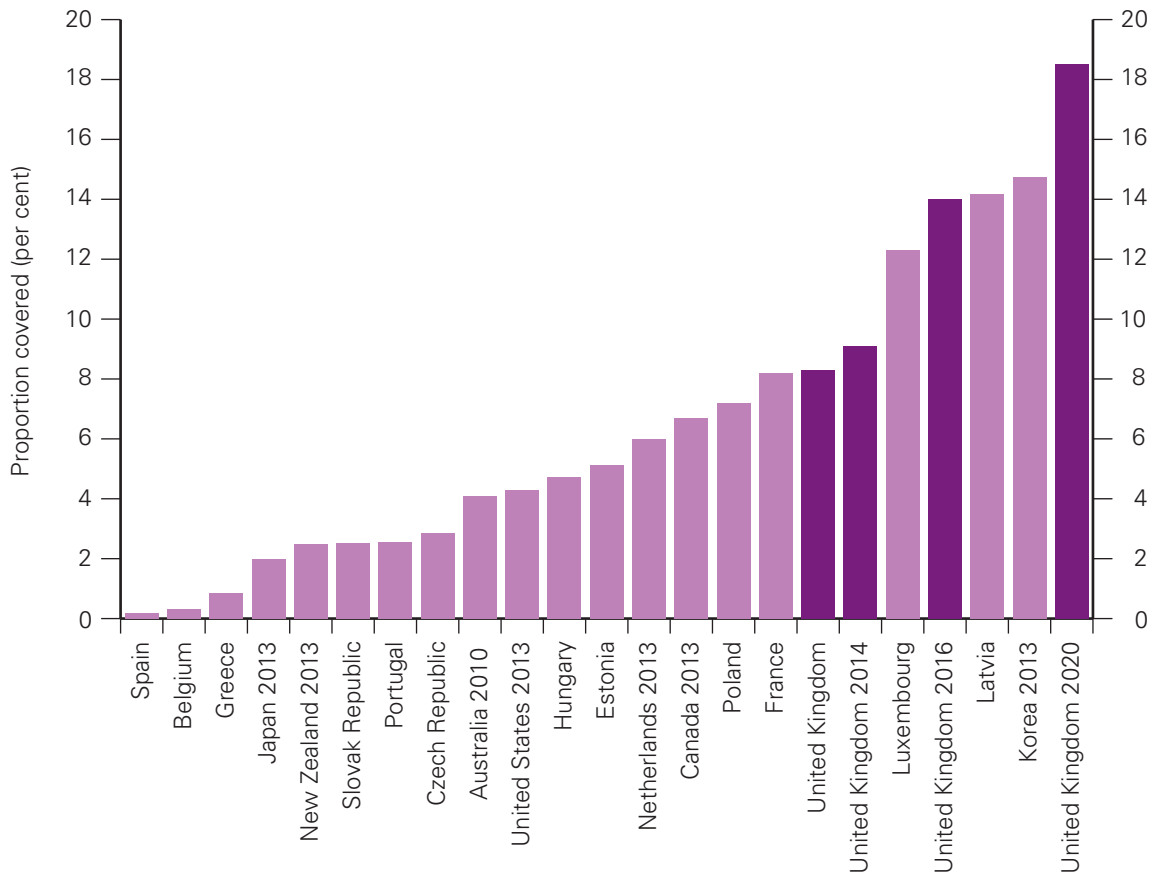
- 13** Over the last twelve months we have met representatives from a number of other countries including France, Germany, South Korea, South Africa, Norway and Republic of Ireland to discuss the operation of the NMW and to spread knowledge and best practice. In connection with the latter, our Secretariat has provided advice and support to the newly formed Irish Low Pay Commission.
- 14** We continue to note significant overseas interest in particular features of the National Minimum Wage in the UK, including how the Low Pay Commission has achieved unanimity in its recommendations, and flexibility to respond to economic circumstances. For example, in June 2015 Commissioner Professor Richard Dickens attended a workshop in Johannesburg held by the South African Government to gather information on the experiences of other countries who have introduced national minimum wages, as part of a dialogue on wage inequality and labour relations. Also another Commissioner, Professor Sarah Brown, has acted as an external advisor to a project on 'an international comparison of minimum wages and labour market outcomes' by the National Institute of Labour Studies,

Flinders University, for the Australia Fair Work Commission. Its report, Mavromaras, Sloane and Zhu (2016), was published in January. It compared the minimum wage structures and labour market institutions in Australia, New Zealand, France, the UK, the US, and Canada. It noted that Australia, New Zealand and France had higher minimum wages than the other three countries. Whereas France has performed relatively badly in terms of unemployment, youth unemployment and economic growth over the last decade, Australia and New Zealand had fared much better. The other three countries – the UK, the US, and Canada – compared favourably with France on labour market outcomes, but they have clearly not done better than Australia or New Zealand.

Impact of the National Living Wage Introduction

- 15** Chapter 2 looked in detail at the UK's ranking internationally relative to other OECD countries measured against the bite. Broadly it found that the UK is currently mid-table. The increase in the pay floor to 60 per cent of median earnings by 2020 for workers aged 25 and over moves the UK to the upper end of the league table of OECD countries with minimum wage systems. Preliminary analysis by the LPC suggests we may be near the top in 2020, if differences in age structure are corrected for, and comparison is made on an all worker basis. We intend to research this further.
- 16** Another basis of international comparison is coverage. The OECD (2015a), as shown in Figure A3.3, estimated that the UK had higher levels of coverage than many other countries, including France, the Netherlands, Australia and New Zealand, albeit lower than South Korea, Latvia and Luxembourg. The introduction of the NLW in 2016 would raise the UK's position slightly. By 2020, coverage would be the highest among countries in the OECD for which there were available data. It should be noted that there were significant inconsistencies in the data series across countries in this analysis – with some data coming from 2010. Coverage is also measured on a broader basis than that by the LPC – namely workers paid less than 105 per cent of the applicable minimum wage rate (in 2015 when the NMW rate was £6.50 that would be those paid less than £6.83).

Figure A3.3: International Comparisons of Minimum Wage Coverage, 2010



Source: LPC calculations and estimates based on OECD data from Figure 6 of OECD (2015a): Structural Survey of Earnings, 2010 is used for 13 EU countries, including the UK and country-specific data is used for other countries, including the Netherlands, 2010 and 2013. UK estimates for 2014, 2016 and 2020 are based on ASHE 2007 methodology, April 2010; and ASHE 2010 methodology, April 2014-15, low-pay weights, including those not on adult rates of pay, UK, OBR hourly earnings index, November 2015.

Notes:

- The number of minimum-wage earners cannot usually be established with certainty and can vary between data sources and studies. Counts of minimum-wage earners are commonly based on survey data, which are affected by measurement error, both in earnings and in working hours. It is therefore common to include those with wages below the minimum and slightly above it.
- Data sources and approaches differ however. Results reported from the EU Structure of Earnings Survey (SES) refer to those earning less than 105 per cent of the legal minimum applicable to each worker’s age group. Importantly, SES data exclude workers in small firms with fewer than 10 employees. As minimum-wage workers tend to be over-represented in small firms, shares can often be higher than reported when small firms are included.
- Those countries that have dates appended use country-specific results from a range of sources as specified in source for Figure 6 of OECD (2015x) and generally include employees in smaller firms, but may not include workers paid less than the minimum.
- Estimates of UK coverage for 2014 and 2015 exclude Year One apprentices. It is impossible to identify apprentices prior to 2013.

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