

6. Living standards and the National Living Wage

Key findings

The National Living Wage (the minimum wage for employees aged 25+) is set to rise to 60% of median wages by 2020.

The introduction of the National Living Wage (NLW) in April 2016 saw a sharp rise in the minimum wage paid to employees aged 25 and over. This caused the proportion of employees aged 25+ paid at the legal minimum to jump from 4% in April 2015 to almost 7% in April 2017. Under current forecasts, the NLW is set to reach £7.85 by 2020 (after adjusting for inflation) and cover 12% of employees aged 25+.

The introduction of the NLW in April 2016 was followed by strong wage growth among low-wage employees.

Hourly wages among employees aged 25+ grew by 9.6% between April 2015 and April 2017 at the 5th wage percentile and by 7.4% at the 10th percentile (after adjusting for inflation). This compared with growth of 2.4% in the middle of the wage distribution and 3.7% at the 90th percentile.

There has been little change in hours of work for low-paid employees since 2015.

As a result, weekly earnings grew at a similar rate to hourly wages. For those with the lowest 10% of hourly wages, real weekly earnings grew by 10.5% between April 2015 and April 2017.

Growth in average living standards (i.e. household incomes) has been much more muted than growth in wages or earnings for those most affected by the NLW.

Average pre-tax weekly pay among the lowest-wage 20% of employees grew by 5.7% between 2015–16 and 2016–17, whereas their average household net income grew by just 0.4%. This is because of higher taxes and lower benefit entitlements as earnings rise, and because the earnings of higher-earning partners fell in 2016–17.

Despite this, absolute poverty rates for low-paid employees fell in 2016–17, while they increased for higher-paid employees.

The absolute poverty rate for the lowest-paid 20% fell by 1.6 percentage points between 2015–16 and 2016–17, compared with small rises in absolute poverty for higher-paid employees. This reflects modest (2%) growth in the average living standards of low-wage employees living in households with below-average incomes.

Only a quarter of low-wage workers who are most affected by the NLW are members of low-income households.

Although 22% of employees in the bottom fifth of the hourly wage distribution live in low-income households (poorest 20%), 25% are members of middle-income households (middle 20%). This makes minimum wages a relatively blunt instrument if the objective is to target low-income households, including those who bore the brunt of the benefit cuts announced alongside the NLW in July 2015.

The National Living Wage (NLW) announced by George Osborne in July 2015 has been an ambitious change to the level and structure of minimum wages in the UK. Upon its introduction in April 2016, the minimum wage for employees aged 25 and over was increased substantially to £7.20 (it had been £6.50 upon announcement in July 2015). The government also committed to continue raising the minimum wage for those aged 25 and over to reach 60% of median hourly earnings in 2020 (HM Treasury, 2015). This target marks a notable departure from the past practice of minimum wage setting, whereby increases were decided on a year-to-year basis following recommendations made by the Low Pay Commission (LPC) that aimed to balance the positive impacts of a higher minimum against the potential risk of reduced employment.¹

Increases in the minimum wage boost the hourly wages of workers previously paid below the new minimum, and possibly some of those on higher wages too via ‘spillover effects’, provided they remain in employment. But the impact on the living standards of the lowest-paid workers is less clear than the impact on their hourly wages. This is because their living standards will be influenced by a range of additional factors such as the number of hours worked per week, the amount of taxes paid on their earnings, the benefits and other income sources they receive and the incomes of other people in the household in which they live.

This chapter examines how the hourly wages, weekly earnings and living standards of people with low hourly wages have changed in the years after the introduction of the NLW. This is not the same as the direct impact of the policy, because we do not know how

¹ Prior to the introduction of the NLW, the basic rate applied to workers aged 21 and over, with lower rates set for workers aged 18–20, aged under 18 and apprentices. The rationale for these lower wages is that younger age groups and apprentices may be especially vulnerable to job loss due to minimum wages.

wages or living standards would have grown had the NLW not been introduced; these things tend to change irrespective of minimum wage policy. Nevertheless, by analysing how household incomes changed for different groups in 2016–17, we can show to what extent the wage growth that occurred alongside the NLW's introduction has led to increases in employees' living standards and which factors have magnified or muted this impact. Of course, focusing only on those individuals who are in low-paid work comes at the cost of ignoring those who may have lost their job as a result of a higher minimum wage and those who have remained in unemployment longer than they otherwise would have.

In this chapter, we use the Annual Survey of Hours and Earnings (ASHE) to examine changes in the hourly wages, weekly working hours and weekly gross (pre-tax) earnings of employees. These data are available up to April 2017, which encompasses the introduction of the NLW in April 2016 and the further rise in April 2017. The ASHE data are a random 1% sample of GB employees (with around 180,000 respondents) and are regarded as the most accurate source of information on wages and gross earnings. However, ASHE does not contain any household-level information or information on any other form of income. We therefore use the Family Resources Survey (FRS) to look at changes in post-tax earnings, household incomes and income poverty rates. The FRS is a random sample of around 20,000 UK households and is regarded as the best source of information on household incomes.

Unless otherwise stated, real (inflation-adjusted) monetary amounts are deflated using a version of the Consumer Prices Index (CPI) that includes mortgage interest payments. We restrict our analysis to employees aged 25 and over as this is the group that is directly impacted by the National Living Wage. We do not directly consider impacts on younger employees, apprentices or the self-employed, although it is possible they have been indirectly affected.

The rest of this chapter proceeds as follows. Section 6.1 documents changes in hourly wages and weekly earnings in 2016 and 2017. Section 6.2 looks at how measures of household living standards have changed for employees with low hourly wages in 2016–17 (the first full year after the NLW was introduced). Section 6.3 examines which types of workers and households have been most directly affected by raising the minimum wage. It also compares these employees with those who stand to lose most from the suite of benefit reforms that were announced in the July 2015 Budget alongside the National Living Wage. Section 6.4 concludes.

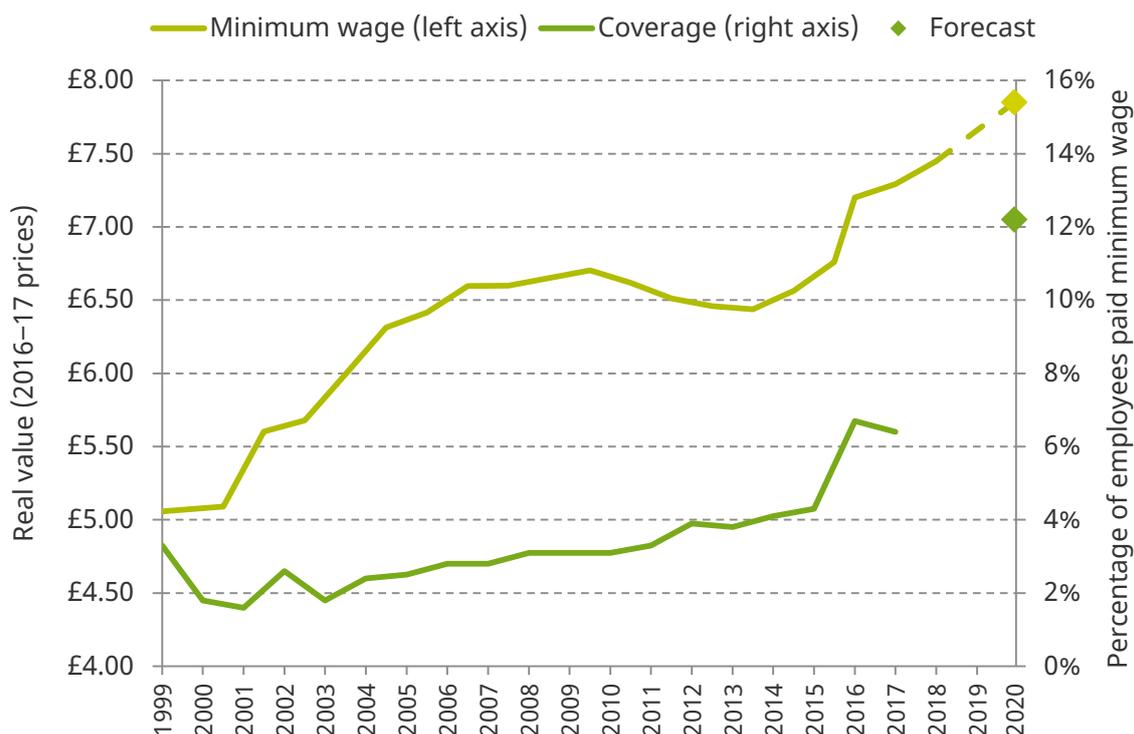
6.1 Changes in pay following the introduction of the National Living Wage

The introduction of the National Living Wage in April 2016 raised the minimum wage for workers aged 25 and over by 10.8% (in nominal terms) from £6.50 (its level in July 2015 when the policy was announced) to £7.20 in April 2016. At the time of writing in June 2018, it has been increased twice more, to £7.50 in April 2017 and to £7.83 in April 2018. To put these nominal increases in context, Figure 6.1 plots the real (inflation-adjusted) value of the minimum wage rate for workers aged 25 and over since the introduction of the

National Minimum Wage in 1999. This highlights how the increase due to the introduction of the NLW resulted in the sharpest increase in the minimum wage in real terms (i.e. after adjusting for inflation) since 2001.

The figure also shows that the proportion of employees aged 25 or older paid at the legal minimum increased markedly from 4.3% in April 2015 to 6.7% in April 2016, which is the biggest jump in the proportion of workers covered by the minimum wage since its introduction in 1999. In April 2017, the proportion dipped slightly to 6.4%.² Under current projections, the real value of the NLW is set to rise to £7.85 by 2020 (a 5.4% increase above its level in 2018–19), with the proportion of workers covered almost doubling to 12.2%. These ‘coverage’ rates disguise how minimum-wage employment is more prevalent among certain types of workers. For example, in April 2017, 4.7% of male employees aged 25 or older were paid at or below the NLW compared with 8.1% of women (Low Pay Commission, 2017). The characteristics of those directly impacted by the minimum wage are discussed in more detail in Section 6.3.

Figure 6.1. Real value of the minimum wage (in 2016–17 prices) and percentage of employees aged 25+ paid the minimum wage



Note: Deflated using a variant of CPI inflation that includes mortgage interest payments between 1999 and 2016 and forecast CPI inflation between 2016 and 2020. ‘Minimum wage’ refers to the National Minimum Wage basic rate for 1999–2015 and to the National Living Wage from 2016 onwards. Coverage is measured in April of each

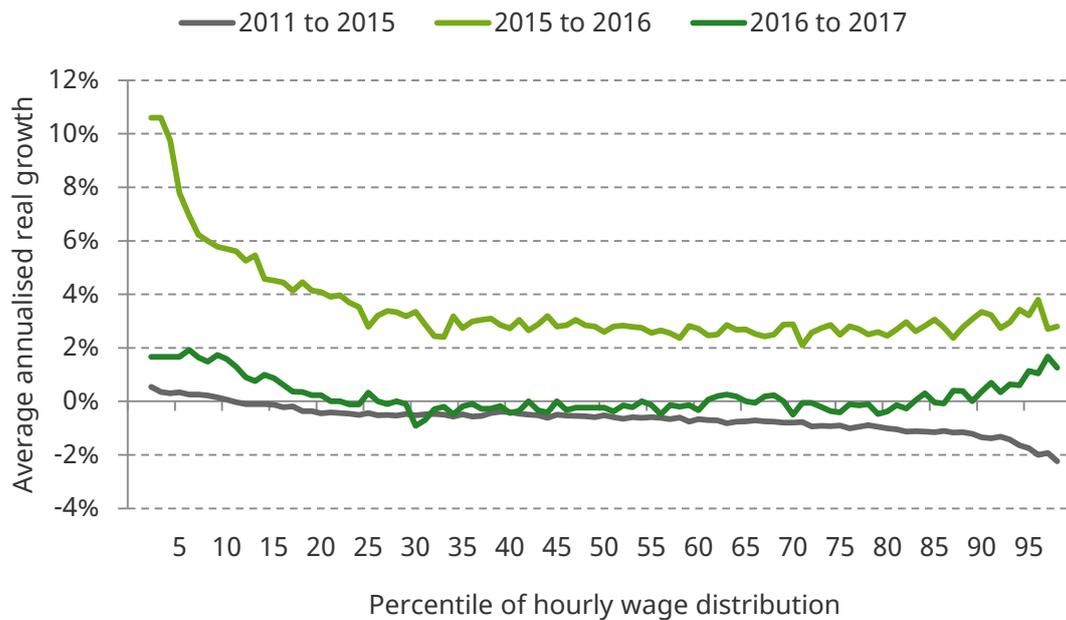
² This is likely due to the fact that the ASHE data were collected in the same month that the NLW was introduced. As a result of this, pay information for some employees in the ASHE sample was reported for a period before the NLW was introduced, which may have overstated the April 2016 coverage figure. For more information, see paragraphs 2.91 and 2.102 of Low Pay Commission (2017).

year. 'Employees paid minimum wage' also includes workers with observed pay less than their minimum wage rate. It excludes apprentices in the first year of their apprenticeship.

Source: Low Pay Commission Autumn Report (personal correspondence) and supplementary economy tables 1.7 and 1.18 of Office for Budget Responsibility's March 2018 Economic and Fiscal Outlook.

Changes in the minimum wage can also impact workers on higher rates of pay than the new minimum – for example, if firms change the wages of higher-paid employees to maintain pay differentials between different types of workers. To get a comprehensive view of hourly wage changes following the NLW's introduction, Figure 6.2 shows how hourly wages grew, after adjusting for inflation, between April 2015 and April 2016 when the NLW was introduced and between April 2016 and April 2017 when the NLW was further increased. We also compare these growth rates with the average annual wage growth between April 2011 and April 2015 (this is the period that corresponds to the start of the recovery in the labour market after the Great Recession: 2011 marked the start of rising employment; the largest wage falls had already occurred by then).³

Figure 6.2. Average annual real growth in wages by percentile of hourly wage distribution (GB, employees aged 25+)



Note: Wage percentiles are measured in April of each year and expressed in April 2016 prices. Real wages are rounded to two decimal places if they are less than £25 and to one decimal place if they are greater than or equal to £25. Sample includes employees aged 25 and over on adult rates of pay whose pay was not affected by absence. Figure excludes percentiles 1 and 99.

Source: Authors' calculations using the Annual Survey of Hours and Earnings, 2011, 2015, 2016 and 2017.

³ The pattern of wage growth shown in Figure 6.2 has been documented and discussed in other publications such as Low Pay Commission (2017) and D'Arcy (2018). The novel element of our analysis is that we focus on how this pattern of wage growth has had a knock-on effect on the earnings and household incomes of low-wage workers.

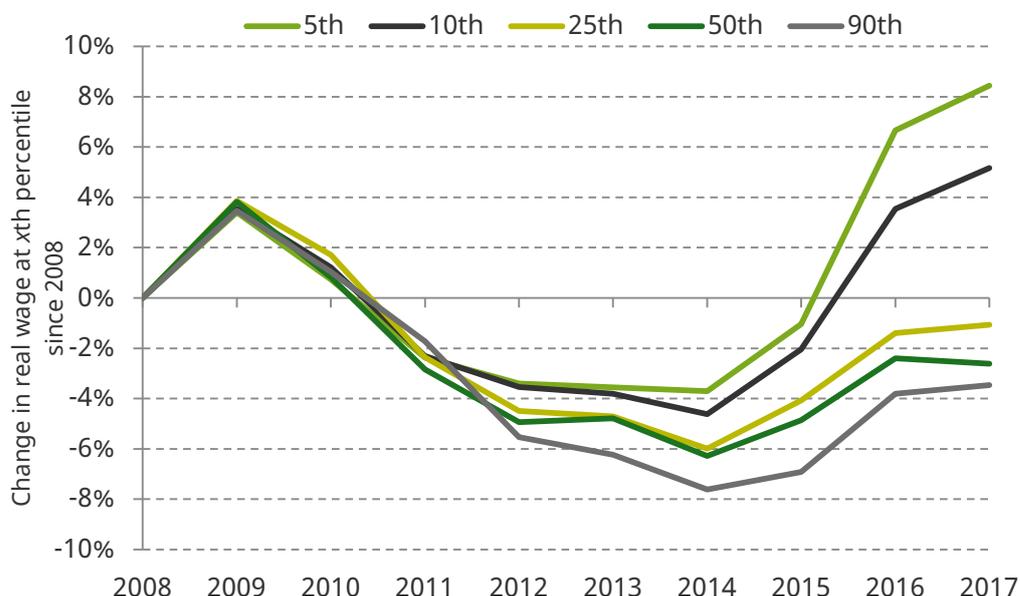
There are three main points to take from Figure 6.2. First, wage growth between April 2015 and April 2016 (following the introduction of the NLW) was far greater at the bottom of the wage distribution than at the middle or top of the wage distribution. Wages at the 5th and 10th percentiles grew by 7.8% and 5.7% respectively between 2015 and 2016, compared with growth of 2.6% at the median and 3.3% at the 90th percentile. While real wage growth was weaker between 2016 and 2017, largely due to significantly higher inflation, real wages at the 5th and 10th percentiles grew by 1.7% and 1.6% respectively, compared with -0.2% at the median and 0.4% at the 90th percentile. As a result of these changes, real hourly wages in 2017 at the 10th, 50th (median) and 90th percentiles were £7.70, £13.00 and £27.90 respectively, whereas the 5th percentile was £7.30 (which is equal to the value of the NLW in 2016–17 prices).

Second, while the largest wage increases occurred at the very bottom of the wage distribution, wage growth was stronger across the bottom 20% of the distribution than it was further up. One possible driver of this is ‘spillover’ impacts on the wages of workers who are paid slightly above the legal minimum.

Finally, the pattern of higher wage growth for low-wage earners observed since 2015 is a much more exaggerated version of that observed between 2011 and 2015. In the four years prior to the introduction of the NLW, wage growth was slightly higher towards the bottom of the wage distribution, although the difference in growth rates was smaller than that observed between 2015 and 2016. Wages at the 10th percentile grew at an average annual rate of 0.1% between 2011 and 2015, in comparison with growth of -0.5% at the median.

The pattern of real wage growth shown in Figure 6.2 followed a period of falling real wages in the years during and immediately after the 2008 recession. This can be seen in Figure 6.3, which shows how selected percentiles of the hourly wage distribution have changed in real terms (i.e. after adjusting for inflation), since April 2008. This shows that while the median hourly wage in 2017 was 2.6% lower than in 2008, wages at the 5th and 10th percentiles were 8.4% and 5.2% higher respectively. Focusing on the period since the NLW was introduced shows that the 5th percentile grew by 9.6% between 2015 and 2017, whereas the 10th percentile grew by 7.4%. These recent increases considerably outpace growth over any two-year period in the mid and late 2000s and are similar to those that were observed in the early 2000s, when overall wage growth was strong and the National Minimum Wage had been introduced.

Figure 6.3. Change at percentiles of the real hourly wage distribution since 2008 (GB, employees aged 25+)



Note: Wage percentiles are measured in April of each year. Real wages are rounded to two decimal places if they are less than £25 and to one decimal place if they are greater than or equal to £25. Sample includes employees aged 25 and over on adult rates of pay.

Source: Authors' calculations using the Annual Survey of Hours and Earnings, 2008 to 2017.

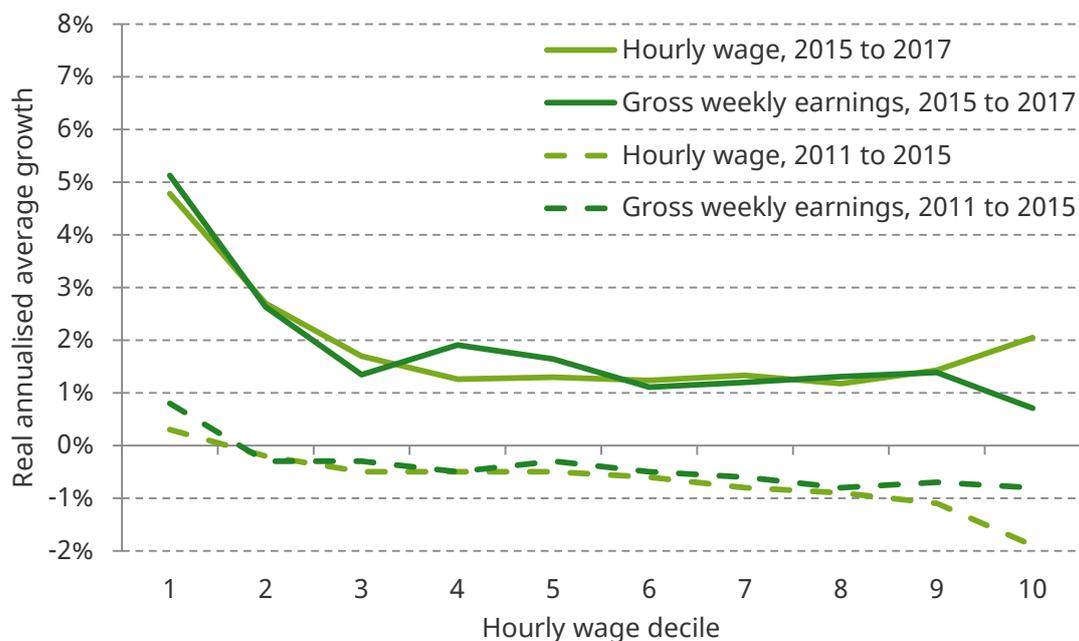
Although Figures 6.2 and 6.3 have shown that hourly wages rose significantly for low-wage employees in 2016 and 2017, this may not have led to higher weekly earnings if they work fewer hours (potentially as a result of the higher minimum wage). Figure 6.4 shows how the changes in hourly wages shown in Figure 6.2 compare with changes in weekly earnings – specifically by looking at whether employees with low hourly wages have seen increases in their weekly pay. The figure splits employees aged 25 and over into 10 equally sized groups according to their hourly wage rate (wage deciles) and plots the growth in mean hourly wages and weekly earnings among each group.⁴ Again, we compare growth in the first two years of the NLW (2015 to 2017) with growth in the preceding four years (2011 to 2015).

The figure shows that weekly earnings have grown at a similar rate to hourly wages for employees at the bottom of the wage distribution following the introduction of the NLW. Mean gross weekly earnings among workers in the lowest wage decile grew at an average yearly rate of 5.1% between 2015 and 2017 compared with growth of 4.8% in their hourly wages. The similar rate of growth in weekly earnings and hourly wages for low-paid employees is the result of little change in their average hours of work from 2015 to 2017.

⁴ Weekly earnings are capped at the 5th and 95th percentiles of the weekly earnings distribution to avoid a few extreme values driving changes in the averages shown in Figure 6.4.

The figure also shows that weekly earnings growth for low-wage workers has been much stronger (in real terms and compared with higher-earning employees) since 2015 than in the preceding years, although between 2011 and 2015, average hours of work among the low-paid grew, after falling steeply during the recession.

Figure 6.4. Real growth in mean hourly wages and weekly earnings by hourly wage decile (GB, employees aged 25+)



Note: Average wages and earnings are measured in April of each year. Sample includes employees aged 25 and over on adult rates of pay. Weekly earnings are capped (Winsorised) at the 5th and 95th percentiles of the weekly earnings distribution.

Source: Authors' calculations using the Annual Survey of Hours and Earnings, 2011, 2015 and 2017.

Although we cannot quantify precisely the causal effects of the NLW from this descriptive analysis, the data presented so far indicate fairly strongly that its introduction has significantly boosted both the hourly wages and the weekly earnings of many low-wage workers. However, one reason that a higher minimum wage would be damaging for the living standards of low-wage workers is if it leads to some low-paid workers being made unemployed and/or means that unemployed people spend longer out of work as it is harder for them to find a job. Indeed, the Office for Budget Responsibility (OBR) predicts the NLW will result in 60,000 more people being unemployed in 2020 than would otherwise be the case, which is equivalent to roughly a 0.2 percentage point increase in unemployment.⁵ Although there is no evidence to date that minimum wages in the UK have had significant adverse employment effects, it will be important to keep track of changes in employment as the minimum wage continues to increase over the coming years.

⁵ See annex B of Office for Budget Responsibility (2015).

In summary, the analysis so far has shown that, in the first two years of the National Living Wage, hourly wages and weekly earnings have grown substantially more for the lowest-wage employees than for middle- or higher-earning employees. This is the starting point for the analysis that follows, where we relate these trends in individual earned incomes to trends in net household incomes – which will, much of the time, be a better proxy for living standards. We split this analysis into broadly two parts. We first continue to focus on low-wage workers but trace through the trends in their earnings to the trends in their net household incomes. Second, we examine the characteristics of these low-wage workers in more detail, including where they are in the net household income distribution.

6.2 Living standards and the National Living Wage

The real growth in hourly wages (and weekly earnings) for low-paid employees since 2015 has been substantial. However, this does not necessarily mean that low-wage workers have seen equivalent improvements in their living standards as measured by their household incomes. This is because living standards are influenced by many additional factors, such as taxes, the earnings of other household members and other types of income such as state benefits and tax credits. We now address this directly and examine how the living standards of employees have changed following the introduction of the National Living Wage.

To look at how employees' living standards have changed following the introduction of the NLW, we need to draw on data that contain information on sources of income other than just earnings from employment. The best, and most up-to-date, source of such data is the Family Resources Survey. The latest version of the FRS covers the 2016–17 financial year, which means we have to restrict our analysis to the first full year of the NLW. In comparison with the Annual Survey of Hours and Earnings data used in the preceding section, the FRS provides much richer information on household characteristics and incomes but is very likely to contain more inaccuracies in the recording of employees' hourly wages.

Despite the imperfect wage information in the FRS, we do see faster growth in wages at the bottom of the distribution following the introduction of the NLW, and a large increase in the number of people earning around the new minimum wage.⁶ We therefore think that the data are accurate enough to provide insightful information about changes in the living standards of low-wage employees, even though, if just the best measure of wages (and not incomes) were wanted, ASHE would be the preferable source. However, the FRS consistently records a greater fraction of employees paid less than the minimum wage than is observed in ASHE, which is primarily due to some measurement error in reported

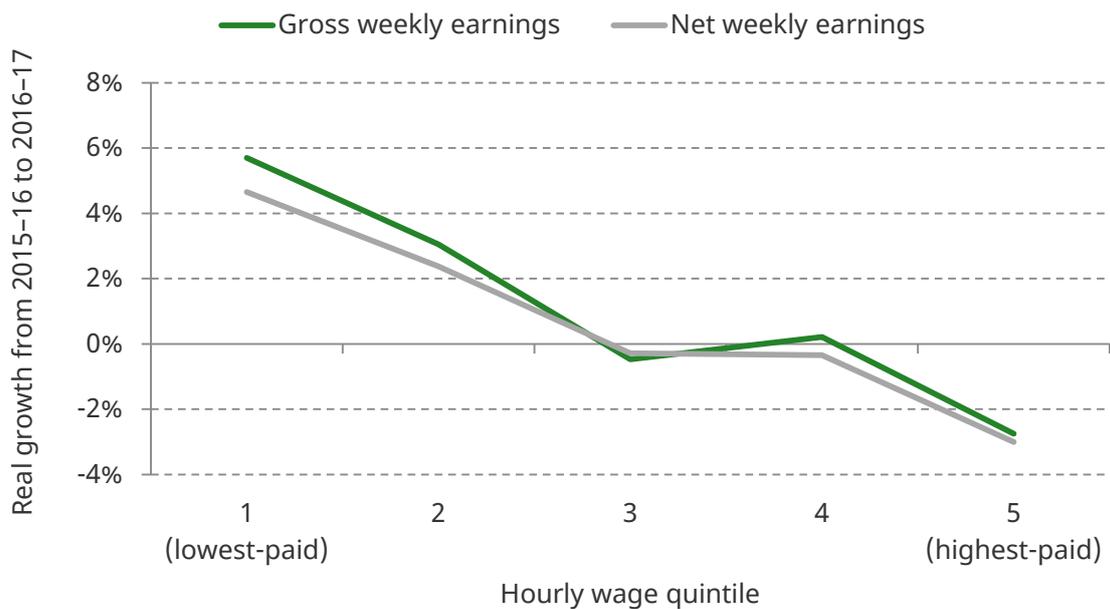
⁶ Figure D.1 in Appendix D shows growth across the wage distribution observed in the FRS. Because the FRS is collected over the duration of a financial year, whereas ASHE is recorded in April each year, the pattern of wage growth observed in the FRS will not align with that observed in ASHE. Strong wage growth in the bottom of the distribution is observed in both data sets, which gives us confidence the FRS can be used to examine trends in living standards of low-wage workers following the introduction of the NLW (although the trends for higher earners are slightly different).

working hours.⁷ The FRS has a much smaller sample size, so the analysis in this section splits employees into five ‘quintiles’ based on their hourly wages, rather than the ten ‘deciles’ used in the previous section.

There are various factors that can determine how changes in wages affect individuals’ living standards as measured by their household incomes. A first key factor is the direct tax system. To illustrate this, Figure 6.5 plots growth between 2015–16 and 2016–17 in gross (pre-tax) weekly earnings and net (post-tax) weekly earnings for each quintile of the wage distribution.⁸

The main point to take from Figure 6.5 is that most, but not all, of the boost to gross weekly earnings has led to higher net weekly earnings (or ‘take-home pay’) of low-wage workers. For example, gross weekly earnings grew by 5.7% in the lowest wage quintile (equal to £585 per year) whereas net weekly earnings grew by 4.7% (£434 per year). However, net weekly earnings growth in 2016–17 was still materially faster for low-wage employees than for those on average wages.

Figure 6.5. Real growth in mean gross weekly earnings and net weekly earnings between 2015–16 and 2016–17, by hourly wage quintile (UK, employees aged 25+)



⁷ Figures D.2 and D.3 plot the bottom part of the wage distribution observed in ASHE and the FRS respectively. They show that 2.0% of employees aged 25 and over were paid below the legal minimum according to the April 2016 ASHE data, compared with 13.2% according to the 2016–17 FRS. Although illegal underpayment of the NLW does occur, best estimates suggest it is far less prevalent than the scale of underpayment observed in the FRS. For example, see Mor and Brown (2018).

⁸ To prevent very high and low incomes from driving the results, we ‘cap’ (or ‘Winsorise’) earnings and incomes at the 5th and 95th percentiles of their distributions, and look at the average change after doing this.

Note: Gross and net weekly earnings are capped (Winsorised) at the 5th and 95th percentiles. Sample includes employees aged 25 or older and excludes those with an hourly wage in the bottom or top 1% of the hourly wage distribution.

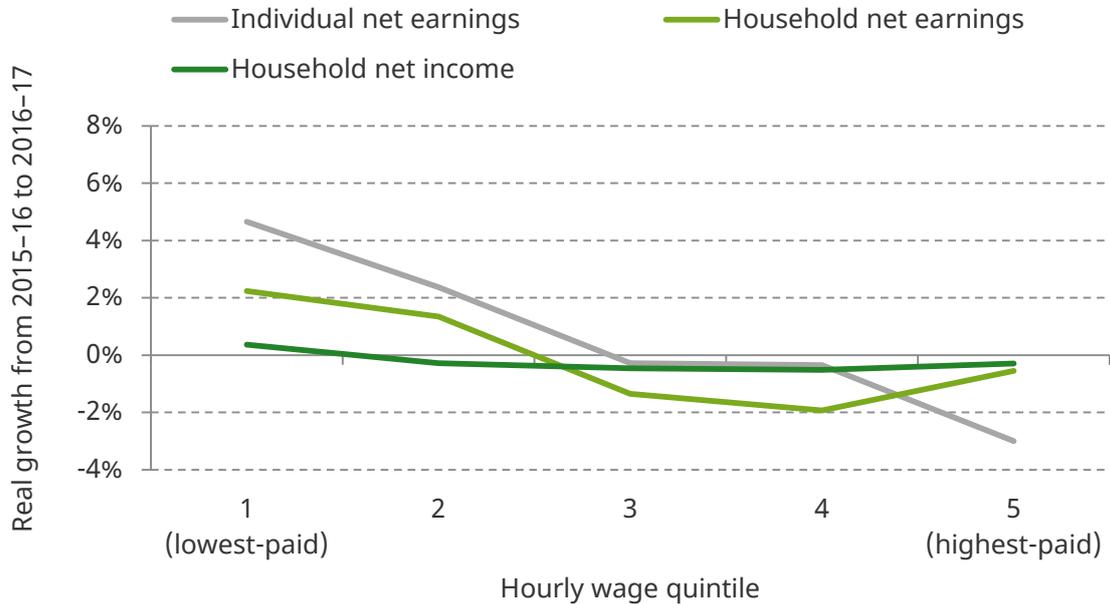
Source: Authors' calculations using the Family Resources Survey, 2015–16 and 2016–17.

While there has been significant growth in individual post-tax earnings among low-wage employees, this does not necessarily mean there has been equivalent growth in their living standards (measured by their total household net income).

Figure 6.6 examines growth in households' (post-tax) earnings from employment and households' total net incomes (including benefits and tax credits). The figure shows that accounting for the earnings of other household members slightly suppresses the impact of relatively strong individual earnings growth among low-wage workers. While average individual net earnings grew by 4.7% in the bottom wage quintile between 2015–16 and 2016–17, household net earnings grew at the slower rate of 2.2%. Figure 6.6 also shows that growth in equivalised net household incomes for low-wage workers was much lower than growth in individual or household net earnings. Average living standards among workers in the lowest-paid 20% of employees aged 25 and over increased by 0.4% (equal to £90 per year) between 2015–16 and 2016–17, compared with falls of between 0.3% and 0.5% among workers in the higher wage quintiles.

There are a number of reasons for the muted impact that strong earnings growth has had on the average net incomes of low-wage employees. First, individuals' net earnings from employment are only a small fraction (32%) of total household income among low-paid workers. This means that growth in their net earnings will have a smaller impact on growth in their household income than for higher earners for whom earnings make up a larger fraction of their income. Second, as well as higher direct taxes, increases in earnings will have led to lower benefit entitlements for some low-wage employees. Third, other sources of income fell in 2016–17 among low-paid employees – in particular, the pay (including self-employment income) of higher-earning partners – pushing down average living standards.

Figure 6.6. Real growth in mean individual and household net weekly earnings and net household income (BHC) between 2015–16 and 2016–17, by wage quintile (UK, employees aged 25+)



Note: Individual net earnings are Winsorised at the 5th and 95th percentiles. Household net earnings and income are Winsorised similarly and equivalised using the modified OECD scale. Sample includes employees aged 25 or older and excludes those with an hourly wage in the bottom or top 1% of the hourly wage distribution. Household income is measured net of taxes, benefits and tax credits but before housing costs have been deducted (BHC).

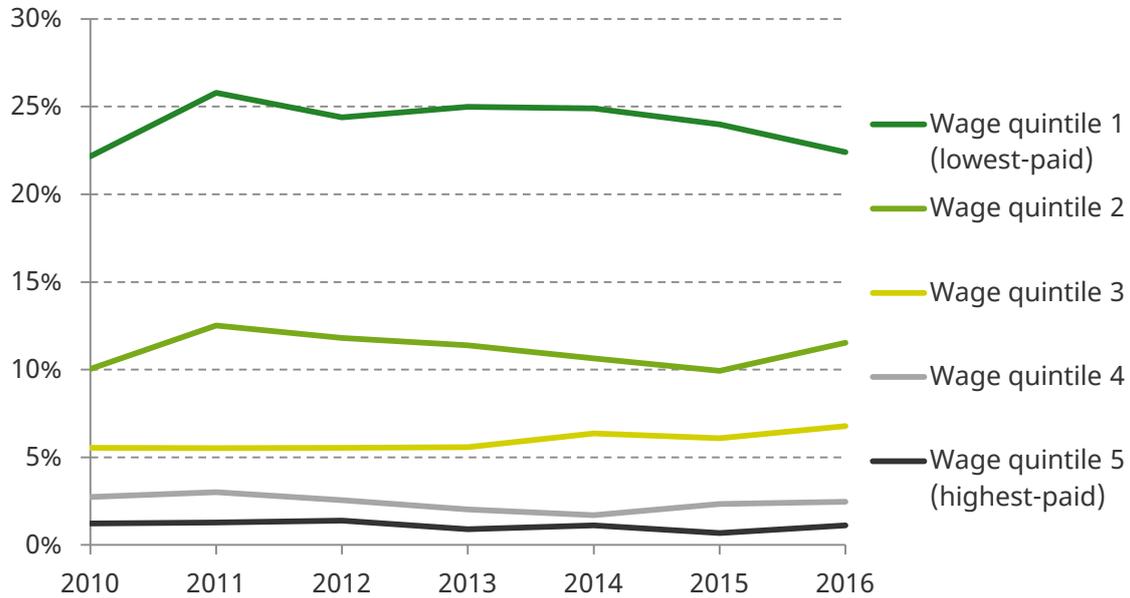
Source: Authors' calculations using the Family Resources Survey, 2015–16 and 2016–17.

The fact that falls in earnings (including from self-employment) for higher-earning partners suppressed living standards of low-wage employees in 2016–17 means that if we focus on low-wage workers in low-income households (who are less likely to have high-earning partners), the trends are more positive. Indeed, the living standards of low-wage employees with below-average household income grew by 1.9% in 2016–17 in contrast to growth of -2.1% among low-wage employees with above-average household income.

Improvements in the living standards of low-wage workers in the lowest-income households can also be seen in falls in absolute poverty among low-wage employees. This is shown in Figure 6.7, which plots the absolute (AHC) poverty rate for employees. The figure shows that the prevalence of absolute poverty among employees in the lowest wage quintile decreased from 24% in 2015–16 to 22% in 2016–17, whereas it rose for employees with higher wages (who saw lower wage growth in 2016–17). Figure D.4 in Appendix D shows that relative (AHC) poverty among workers in the bottom wage quintile fell between 2015–16 and 2016–17 from 26.4% to 26.0%, whereas it increased slightly among workers in higher wage quintiles. This is not conclusive evidence that the higher minimum wage reduced poverty for low-wage employees. However, it is striking that the poverty rate has fallen for those who appear to have been most affected by the higher minimum wage, while it has risen for higher-earning employees, who were much less

affected. It will therefore be interesting to see whether these trends continue in coming years as the NLW continues to rise faster than average earnings.

Figure 6.7. Absolute AHC poverty rates by wage quintile (UK, employees aged 25+)



Note: Years refer to financial years. The absolute poverty line is defined as 60% of median income (measured after housing costs have been deducted – AHC) in 2010–11. Sample includes employees aged 25 or older and excludes those with an hourly wage in the bottom or top 1% of the hourly wage distribution.

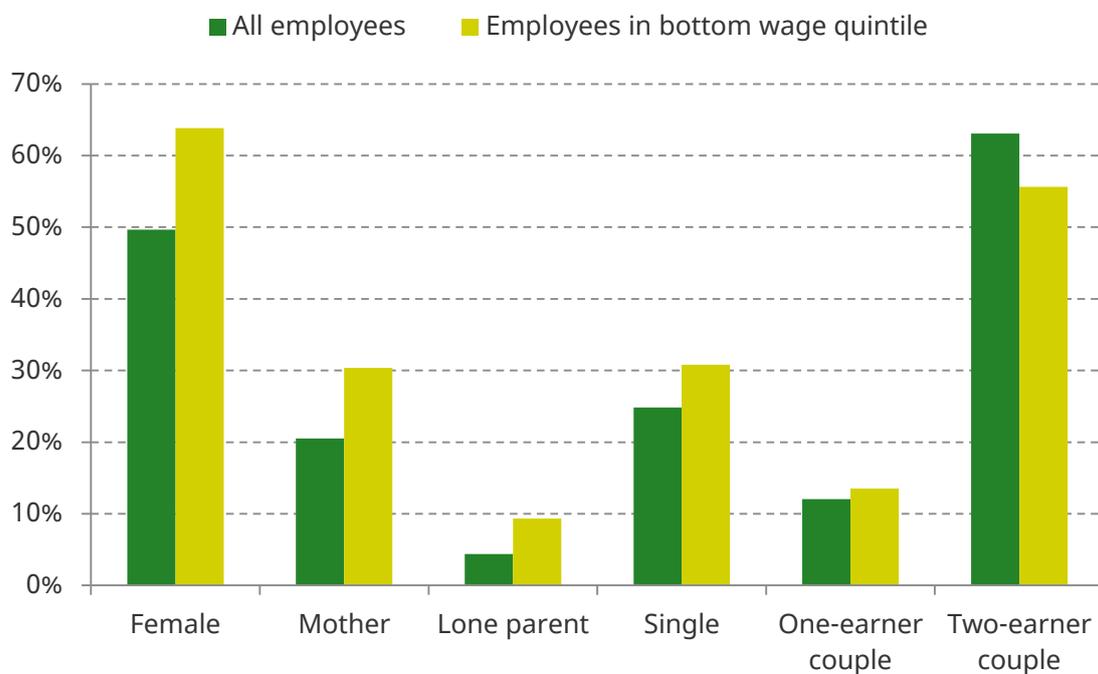
Source: Authors’ calculations using the Family Resources Survey, 2010–11 to 2016–17.

In summary, growth in hourly and weekly pay for workers on low wages was strong after the introduction of the National Living Wage. But the growth in net household incomes for those workers was much more muted, and little different from the growth seen for those on higher wages. Although this may seem counterintuitive, it is in fact in line with what we should expect from previous analysis of the issue, conducted without the benefit of data on what actually happened after the NLW was introduced (e.g. Elming et al., 2015). There are three key reasons. First, the fact that a low-earning individual’s earnings are typically only a small part of their total household income means that the proportional impact of an earnings rise on total income tends to be diluted. Second, as earnings rise, benefit entitlements can be reduced and tax liabilities can increase, offsetting some of the impacts on net income. Third, there were falls in other sources of income in 2016–17 for low-paid employees with above-average incomes – in particular, the pay (including self-employment income) of higher-earning partners – which led to small falls in their average living standards. In contrast, there were modest improvements in the average living standards of low-wage employees with below-average incomes in 2016–17, which led to a slight reduction in the fraction of low-wage workers in poverty.

6.3 Which groups have been most affected by the introduction of the NLW?

To help understand which types of people have been most affected by the increase in wages for low-wage employees, Figure 6.8 presents a range of characteristics for employees who report being paid low wages (the lowest 20%) alongside all employees. The figure suggests that women were affected to a greater extent by the introduction of the NLW than men: 64% of employees in the bottom wage quintile are women, compared with 50% among all employees. A majority of employees in the bottom wage quintile have a working partner (although this is slightly less common than among employees as a whole, accounting for 56% of low-paid employees versus 63% of all employees). Mothers, and lone parents in particular, are also over-represented among low-paid employees, which is likely related to the fact that part-time workers tend to have lower hourly wages.⁹

Figure 6.8. Characteristics of employees aged 25+ in 2016–17 (UK)



Note: Sample includes employees aged 25 or older and excludes those with an hourly wage in the bottom or top 1% of the hourly wage distribution.

Source: Authors' calculations using the Family Resources Survey, 2016–17.

The effects of the NLW are also likely to vary across the different regions and nations of the UK because of differences in the prevalence of low-wage employment. This can be seen in Figure 6.9, which plots the fraction of employees (aged 25+) in each region and nation that are in the lowest-paid 20% of UK employees in 2016–17. The figure shows that employees in the Midlands, the North of England, Wales and Northern Ireland are more

⁹ For example, 38.4% of employees in the bottom wage quintile in 2016–17 worked part-time in comparison with 20.3% of all employees.

likely to be in the bottom 20% of the wage distribution than employees on average. This suggests that the NLW has affected and will continue to affect a greater portion of the labour market in these parts of the country, and less in southern England and Scotland, where low-paid work is less prevalent.¹⁰

Figure 6.9. Fraction of employees aged 25+ in the bottom wage quintile in 2016–17, by region and nation of the UK



Note: Sample includes employees aged 25 or older and excludes those with an hourly wage in the bottom or top 1% of the hourly wage distribution.

Source: Authors' calculations using the Family Resources Survey, 2016–17.

The distinction between low individual wages or earnings and low household income is often glossed over, but can be crucial in understanding the distributional effects of policy – as was shown in the previous section when examining how changes in individual wages compared with changes in household incomes. However, the National Living Wage was announced alongside several cuts to the generosity of working-age benefits, which have a negative impact on the incomes of low-income households. The then Chancellor, George Osborne, said that ‘taken together with all the welfare savings and the tax cuts in [the July 2015] Budget, [the NLW] means that a typical family where someone is working full time on the minimum wage will be better off’.¹¹ There are undoubtedly some households where this is the case. The extent to which it is true more generally, however, will depend on whether low-paid employees are members of low-income households.

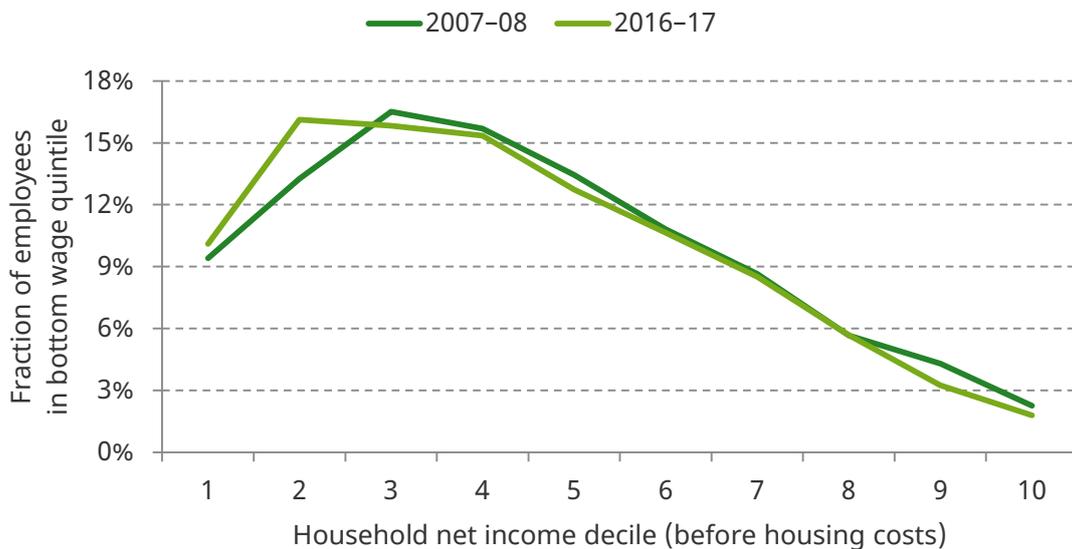
¹⁰ Another way to assess the relative impact of the NLW across UK regions and nations looks at the NLW as a share of median earnings within each region and nation. In general, this measure suggests the NLW has a greater impact in the same parts of the UK as those highlighted in Figure 6.9. (For example, see figure 2.3 of Low Pay Commission (2017).)

¹¹ <https://www.gov.uk/government/speeches/chancellor-george-osbornes-summer-budget-2015-speech>.

To look at this, Figures 6.10a and 6.10b plot the fraction of employees with the lowest 20% of hourly wages in the FRS that belong to each decile of the *household* net income distribution. In Figure 6.10a household net income deciles are defined over working-age adults only, whereas in Figure 6.10b they are defined over the entire population (i.e. children and pensioners are also included). Figure 6.10a shows that while 23% of workers in the bottom wage quintile were also among the lowest-income 20% of the working-age population in 2007–08, by 2016–17 this had risen to 26%. Low-wage workers and low-income adults have therefore become slightly more synonymous since the recession.

Figure 6.10b similarly shows that low-wage workers have also become more synonymous with low-income households in the population as a whole, with the fraction of low-wage workers in the bottom quintile of the household net income distribution rising from 17% to 22%. In all likelihood, this is as a result of the large increases in employment seen since 2011–12 (as shown in Chapter 3), which have disproportionately been concentrated among low-income households. This means that the NLW is slightly better targeted at low-income households now than had it been introduced in 2007, and it is likely to continue to become more targeted at low-income households if the employment rate in these households continues to rise. However, Figure 6.10b also shows that a large fraction of workers in the bottom wage quintile are members of middle- and high-income households. For example, 25% of employees in the bottom wage quintile belong to the middle 20% of the income distribution and 38% have above-average household income. One reason for this is that many low-wage workers have a working partner (as shown in Figure 6.8) and most two-earner couples are in the middle or top of the income distribution.

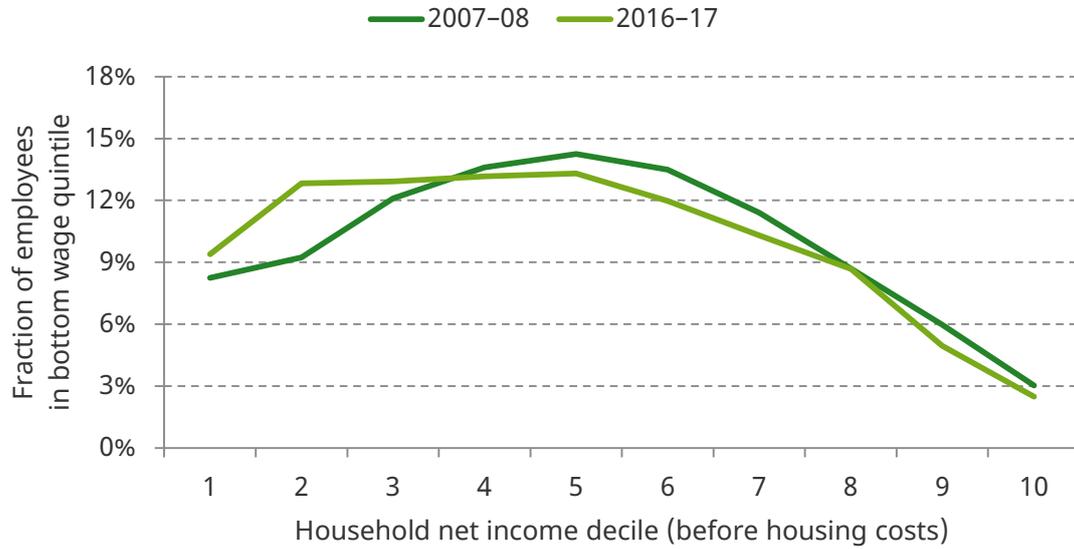
Figure 6.10a. Fraction of employees in bottom wage quintile in each household income decile (UK, working-age population only)



Note: Sample includes employees aged 25 or older and excludes those with an hourly wage in the bottom or top 1% of the hourly wage distribution. Household income deciles are calculated over working-age adults only.

Source: Authors' calculations using the Family Resources Survey, 2007–08 and 2016–17.

Figure 6.10b. Fraction of employees in bottom wage quintile in each household income decile (UK, entire population)

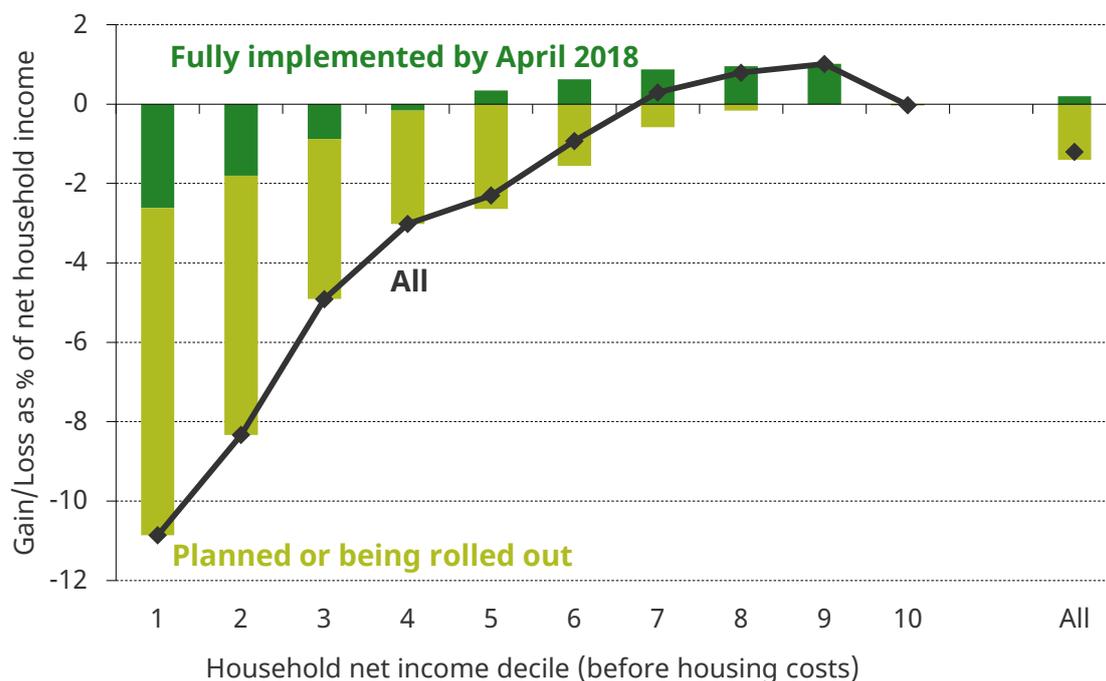


Note: Sample includes employees aged 25 or older and excludes those with an hourly wage in the bottom or top 1% of the hourly wage distribution. Household income deciles are calculated over the entire population.

Source: Authors' calculations using the Family Resources Survey, 2007-08 and 2016-17.

Figure 6.11 shows the simulated impact of the personal tax and benefit reforms announced since July 2015 on the average net incomes in each decile of the (BHC) net income distribution and in the entire population. While these reforms are estimated to reduce average income by 1% in the population as a whole, the negative impact on incomes is much greater among lower-income households, with average losses in the bottom, second and third income deciles estimated at 11%, 8% and 5% respectively. Comparing this with Figure 6.10b makes it clear that only a minority of those who are likely to gain most from the NLW are in the low-income households that stand to lose the most from the benefit reforms since July 2015. In other words, minimum wages are far less tightly targeted on those with low household incomes than are working-age benefits. In particular, this makes any suggestion of minimum wages 'compensating' for benefit cuts rather tenuous, as has previously been shown by Elming et al. (2015). The reasoning is clear: entitlements to means-tested benefits can be, and are, explicitly related to family incomes, in a way that minimum wages cannot be.

Figure 6.11. Long-run impact of personal tax and benefit reforms since 2015



Note: Reforms assessed relative to following the default uprating rules in place at the start of the 2015 parliament. Baseline incomes are also those that would have applied under the system in place at the start of the 2015 parliament. Reforms 'being rolled out' include: the transition from disability living allowance (DLA) to personal independence payment (PIP); the abolition of the work-related activity group in employment & support allowance (ESA); the introduction of the two-child limit and removal of the family element in tax credits and universal credit; and the transition to universal credit.

Source: Authors' calculations using IFS microsimulation model, TAXBEN, run on uprated data from the 2015-16 Family Resources Survey and 2014 Living Costs and Food Survey.

6.4 Conclusion

This chapter has presented evidence that the hourly wages and weekly earnings of low-wage employees have grown substantially in the years after the introduction of the National Living Wage. Changes in the average household incomes of low-wage employees (a measure of their material standard of living) have been more muted, although this group has seen greater reductions in poverty than higher-wage employees.

The analysis in this chapter makes a number of further key points. First, if policymakers wish to lift the incomes of the lowest-paid employees, then a higher minimum wage might be an effective strategy, as long as they do not set the minimum wage so high as to substantially lower the employment rate of these people.

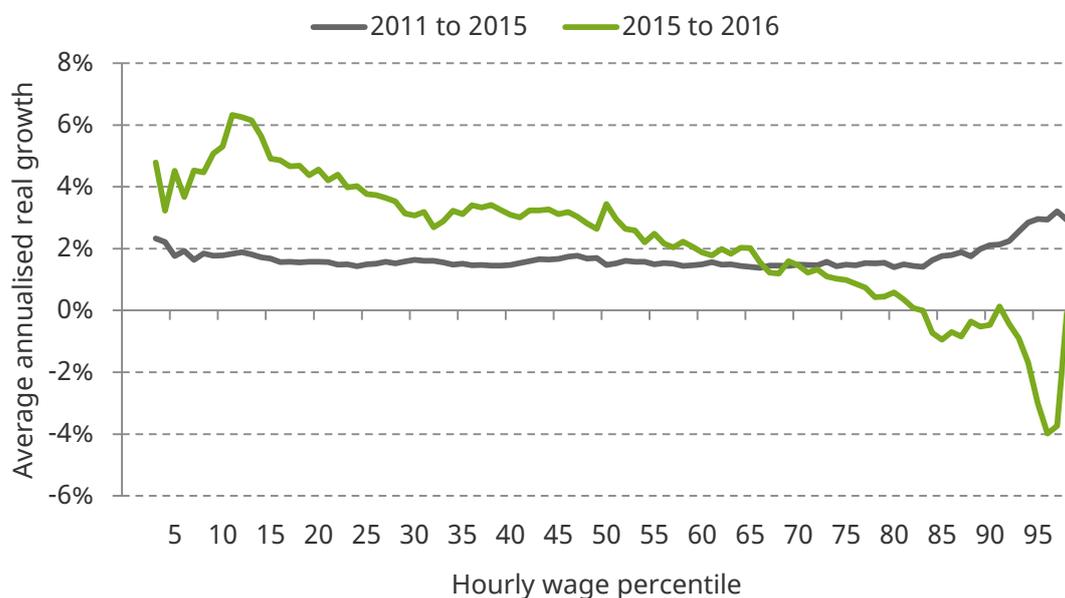
However, the minimum wage is not particularly well targeted at low-income households, as many low-wage workers are members of middle-income households and many of the poorest in society are not in work at all. Although it is better targeted now than had it been introduced in 2007, only around a quarter of those most affected by the NLW are in the poorest 20% of households and, for many poor households, ongoing reductions to

benefit and tax credit entitlements will push down their incomes by much more than the higher minimum wage is able to boost them.

Finally, it is worth reiterating that the NLW still has to increase from the current £7.83 rate to reach its 2020 target rate, of £8.57 according to latest estimates (a 5.4% rise in real terms).¹² As well as taking the UK’s minimum wage to an unprecedentedly high level relative to average earnings, these rises will occur during the unique economic context of Britain leaving the EU. This means that even though there is no evidence *so far* that the NLW has had a significant negative impact on employment, there is no guarantee that this will continue to be the case, particularly as the minimum wage rises. One reason to be more concerned about future minimum wage rises is that the minimum wage will increasingly affect employees who are more likely to be working in jobs undertaking tasks that are more ‘routine’ and therefore more easily automated under current technologies (Cribb, Joyce and Norris Keiller, 2018). With an increasing minimum wage, if significant negative employment effects did materialise, there would be a strong case for the NLW to be reassessed to prevent the policy harming the group of low-wage workers it was designed to help.

Appendix D: Additional figures for Chapter 6

Figure D.1. Average annual real growth in wages by percentile of hourly wage distribution (UK), FRS data

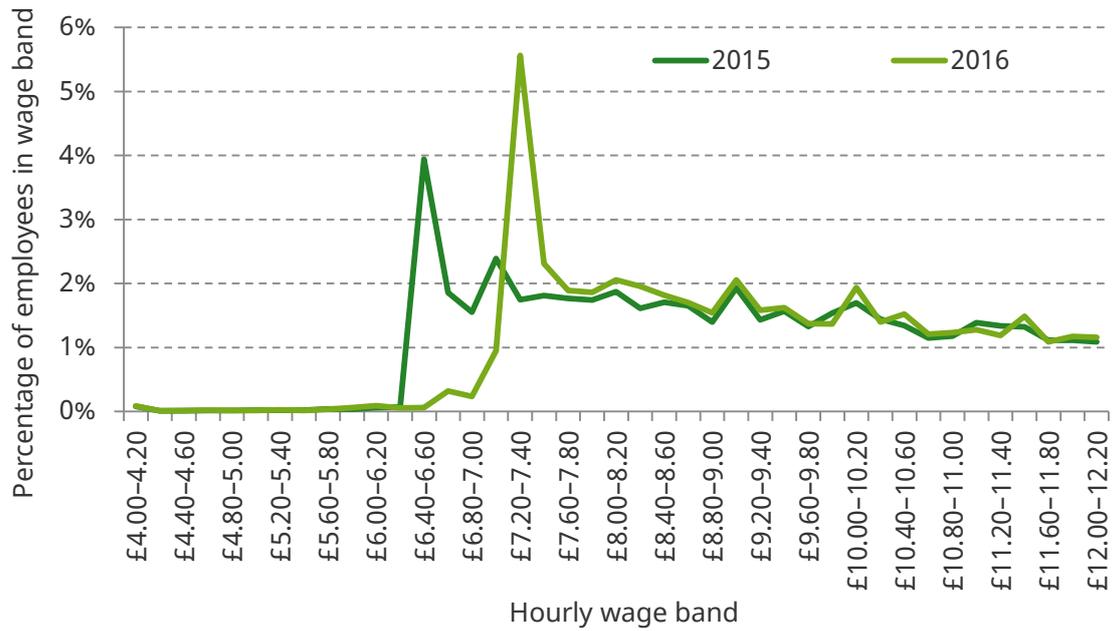


Note: Years refer to financial years. Sample includes employees aged 25 and over. Figure excludes percentiles 1, 2 and 99.

Source: Authors’ calculations using the Family Resources Survey, 2011–12, 2015–16 and 2016–17.

¹² See the supplementary economy tables of the OBR’s March 2018 Economic and Fiscal Outlook.

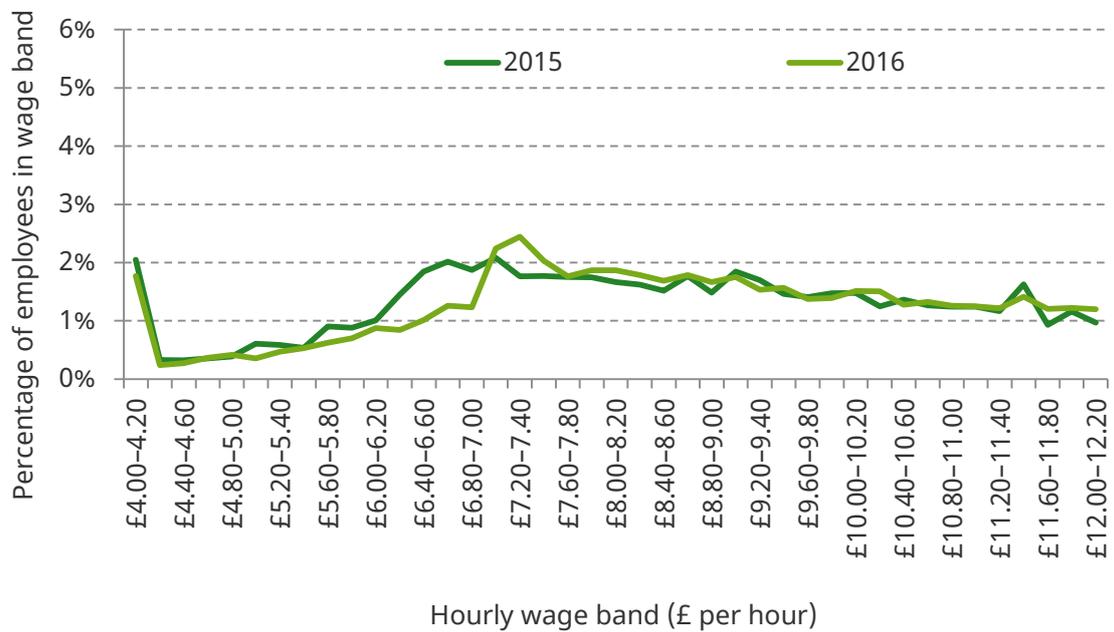
Figure D.2. Fraction of employees aged 25+ by hourly wage band (GB), ASHE data



Note: Measured in April of each year. Hourly wages expressed in nominal terms (i.e. not adjusted for inflation).

Source: Authors' calculations using the Annual Survey of Hours and Earnings, 2015 and 2016.

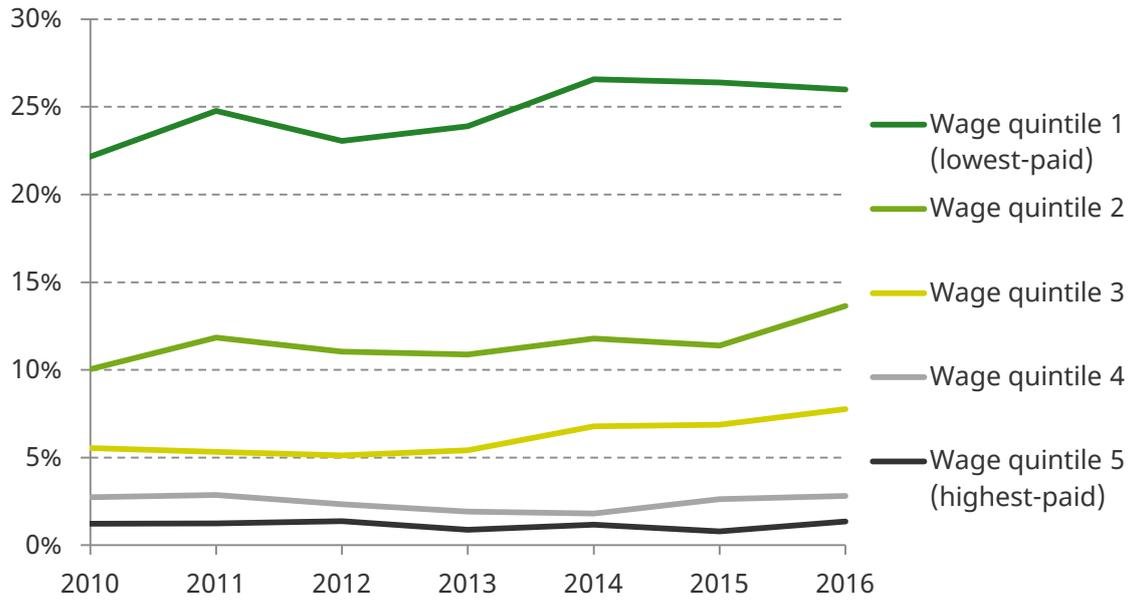
Figure D.3. Fraction of employees aged 25+ by hourly wage band (UK), FRS data



Note: Years refer to financial years. Hourly wages expressed in nominal terms (i.e. not adjusted for inflation)

Source: Authors' calculations using the Family Resources Survey, 2015-16 and 2016-17.

Figure D.4. Relative AHC poverty rates by wage quintile (UK, employees aged 25+)



Note: Years refer to financial years. The relative poverty line is defined as 60% of median income (measured after housing costs have been deducted - AHC) in each year. Sample includes employees aged 25 or older and excludes those with an hourly wage in the bottom or top 1% of the hourly wage distribution.

Source: Authors' calculations using the Family Resources Survey, 2010-11 to 2016-17.