RF

Resolution Foundation
REPORT

Low Pay Britain 2015

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October 2015

Acknowledgements

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Contents

Executive Summary

This is our fifth annual report on the prevalence of low pay in Britain. It uses the latest data available (2014) to map out the scale of low pay and the groups that are most affected. It shows how this has changed over recent decades and looks at what the coming years might hold, particularly given the introduction of the National Living Wage in 2016.

The pay squeeze and recovery

The downturn of recent years has been characterised as one of relatively robust employment performance alongside greatly squeezed pay. Adjusting for inflation, pay fell for more than five years in a row across the earnings distribution. Today, employment is at record highs by some measures and real wages have begun to grow quickly, aided by low inflation. But average pay is still considerably below its pre-crisis peak and it will be some time before that is surpassed. Even then, there will have been a lost decade of pay growth.

While the recovery in pay appears to be gaining momentum, there is an open question as to how strong and sustainable it will prove. And, while the pay squeeze has been felt relatively uniformly, there is a great deal of uncertainty around who will benefit most from the recovery. However, the introduction of the National Living Wage as a minimum wage supplement for the over-24s has the potential to play an important role in supporting wage growth at the bottom of the pay distribution.

Even before the financial crisis hit, too many employees in Britain were low paid by the standards of the day and relative to other countries. The downturn has done little to alter that, and pay has fallen behind the cost of living. More than ever, then, there is a pressing need for strong growth – both rebounding from the crisis and beyond – that is shared with those currently on low pay.

Our measures of low pay

There are various ways in which low pay can be defined. To give as complete a picture as possible, we analyse the trends and patterns using four separate measures:

» Our core **low pay** definition is based on the standard approach and is of *gross hourly earnings (excluding overtime) below two-thirds of the median*. This was equivalent to £7.67 an hour in April 2014.

» We look similarly at a measure of **extreme low pay**, defined as gross hourly earnings (excluding overtime) below one-half of the median, equivalent to £5.75 an hour.

» While these are relative measures of low pay, we also consider a needs-based **Living Wage** measure which captures hourly wages below the independently-set Living Wage rates. We use a combination of the two widely accepted rates in place at April 2014: the London Living Wage rate of £8.80 set by the Greater London Authority and the UK Living Wage rate of £7.65 set by academics at the Centre for Research in Social Policy.

» We also look at how many employees are paid only (or up to 1 per cent above) the age-appropriate **minimum wage** (or the National Living Wage when it is introduced), in part to assess the degree of compression at the bottom of the pay distribution. In April 2014 the wage floor for those aged 21 and over was £6.31 an hour.

Low pay Britain

We find that in April 2014:

» **One-in-five employees (21 per cent, or 5.5 million individuals) were low paid** in Great Britain. There has been little change in this proportion over the past 20 years.

» **Extreme low pay affected just 2 per cent of employees** – likely to be young people and apprentices as well as some possible minimum wage non-compliance – reflecting the fact that the threshold falls below the adult minimum wage.

» **More than one-in-five employees (22 per cent, or 5.7 million individuals) were paid less than the Living Wage.** This is an increase from 20 per cent in 2013.

» **One-in-twenty employees (5 per cent, or 1.4 million individuals) were on the minimum wage**. This proportion has been increasing steadily since the early 2000s.

Across all measures, those most likely to be low paid include **women**, the **young**, **part-time** and **temporary** employees, those in **lower-skilled occupations**, and those employed in the **hospitality**, **retail** and **care** sectors.

Although hourly earnings data is not available for the **self-employed**, and they are not included in our main analysis, approximations suggest that their exclusion underestimates the scale of low pay.

Impact of the National Living Wage

The low pay landscape will be greatly affected by the new National Living Wage (NLW). Roughly 1.9 million employees will receive a pay rise in April 2016 as a result of its introduction, either as a direct consequence of having their pay lifted to the new wage floor, or because of the 'spillover' effects associated with employers raising the pay of those just above the NLW in order to maintain differentials between staff.

Equally important is the objective that the NLW reach 60 per cent of median earnings among over-24s by 2020, benefitting around 6 million employees. In practice the 60 per cent over-24 'bite' will correspond to around 65 per cent of the all-age hourly median, just below the two-thirds median low pay threshold. As such, we might expect the NLW to shift significant numbers of employees close to, or just above, the low pay threshold: reducing the severity and prevalence of low pay.

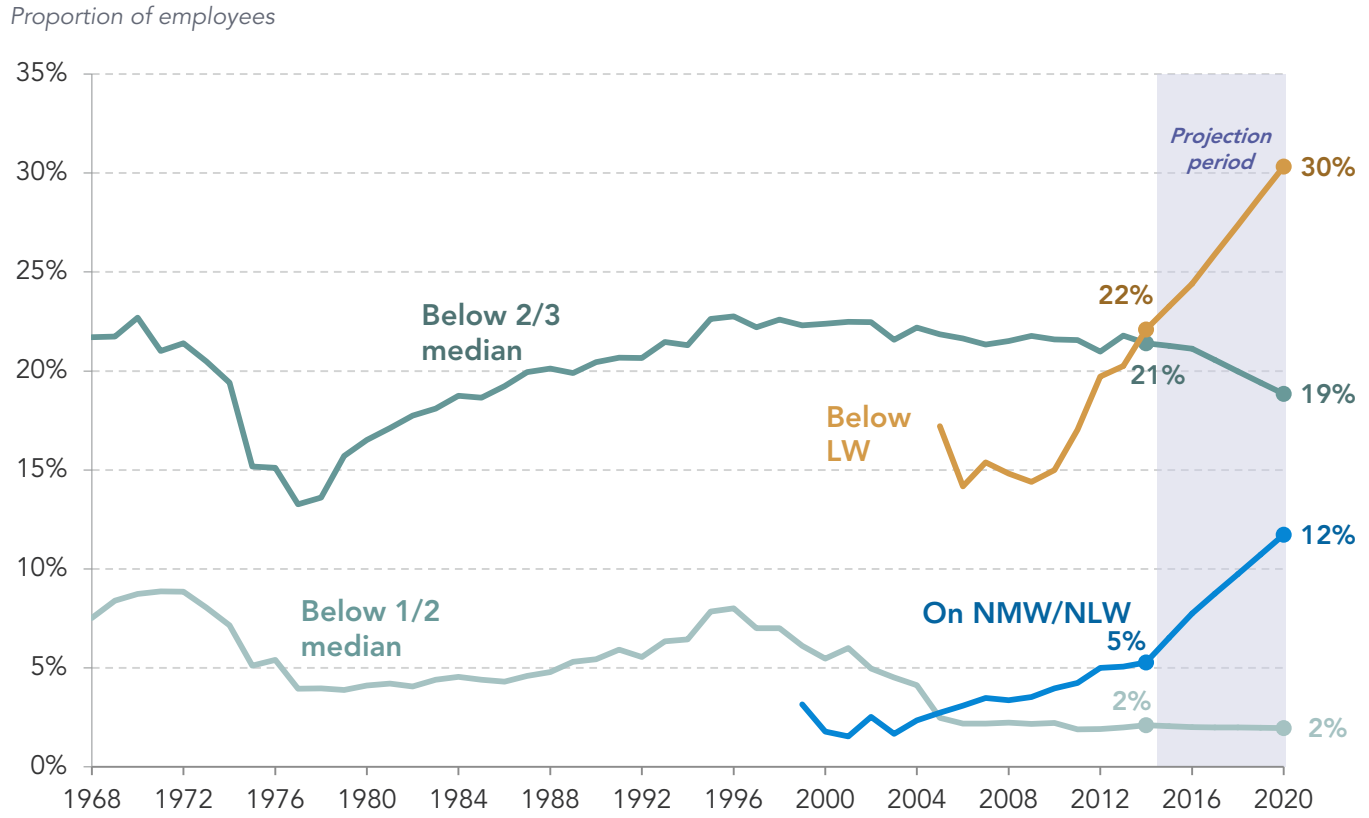
We model what impact the NLW will have on low pay (in the absence of other economic developments) and find that:

- **The NLW will reduce the prevalence of low pay to its lowest level since 1985,** from 21 per cent in 2014 to 19 per cent in 2020, as shown in Figure 1.
- **It will slightly improve the UK's international low pay standing** when all-employee hourly pay measures are used.
- **The NLW will have an even larger impact on the 'depth' of low pay**, with the average low paid individual being much closer to the low pay threshold by 2020.
- The combination of gently declining low pay prevalence and steeper falls in the depth of low pay means that **the magnitude of the 'low pay gap'**

(the total wage bill falling below the standard low pay threshold) will almost halve between 2014 and 2020. The low pay gap was £7.9 billion in 2014 and the equivalent figure for 2020 (but holding constant 2014 pay and employment levels to allow comparison) is £4.4 billion.

Figure 1: Proportion of employees below selected low pay thresholds, 1968-2020

Tweet this chart



Notes: GB. Hourly earnings excluding overtime. See Annex 1 for methodological details, including how different datasets are combined.

Sources: RF analysis of DWP, *Family Expenditure Survey* (1968-1981); ONS, *New Earnings Survey Panel Data* (1975-2013); ONS, *Annual Survey of Hours and Earnings* (1997-2014)

However, the NLW is also likely to lead to a significant bunching of the pay distribution. The share of employees paid only their age-specific legal minimum (or up to 1 per cent above) was around 1 in 50 in the years following the introduction of the minimum wage in 1999. **In 2014, around 1 in 20 were on the wage floor**. With the introduction and growth of the NLW, **by 2020 more than 1 in 9 are expected to be paid at or only just above the legal minimum**, including more than 1 in 7 in the private sector. This increases the need for employers and government to provide personal progression opportunities to get people beyond the wage floor.

Despite the rising wage floor for over-24s, **the proportion of workers paid below the needs-based, voluntary Living Wage is expected to continue to rise**. From 22 per cent in 2014 it is projected to reach 24 per cent (6.5 million individuals) in 2016, and perhaps 30 per cent by 2020 if the Living Wage continues to rise as it has.

The NLW will have a material impact on the prevalence and severity of low pay and boost the returns from working for millions of households. But this must be complemented by other policies and by government working with the Low Pay Commission and businesses to minimise potential negative consequences. Considering how to boost progression opportunities should form part of this thinking, in order to avoid too large-a share of the employee workforce being bunched at the legal wage floor.

But even a successful NLW can only do so much, and it would be a mistake to think that legal minimum pay levels – and more broadly the measures of low pay discussed throughout this report – give more than a partial picture of living standards. The focus on employee earnings says nothing of the patterns of working within households and the role of taxes and benefits (and income from other sources such as self-employment) in determining disposable household incomes. As an exposition of this, the impact of the NLW will be more than offset for low to middle income families by the £13 billion of cuts to working-age welfare that were announced at the same time. Broader living standards for those on low and middle incomes will be determined by a combination of real wage growth for all (underpinned by productivity growth), employment levels, and changes in welfare support.

Navigating this report

This year's Low Pay Britain report is divided into three sections:

- Section 1 touches on the latest developments in the labour market, before sharing the most interesting findings from our more general analysis of low pay. More specifically:
    - It highlights recent wage trends and considers how the wage squeeze has been shared across workers;

- It looks at international comparisons of Britain's low pay picture; and
- It brings out some of the most interesting features of low pay today and its evolution over recent decades.

- Section 2 considers the impact that the National Living Wage may have on low pay, its severity, and its composition.
- Section 3 provides fuller, descriptive statistics on low pay for researchers who want a more comprehensive and detailed account. It sets out low pay trends and projections by a variety of employee and job characteristics, including:
  - Age, sex and region;
  - Occupation, working hours and contracts; and
  - Industrial sector and firm size.

The Annex provides technical details of the data sources used and the methods adopted to produce a consistent low pay time series and projections to 2020.

Section 1

Low Pay Britain 2015

In this section we review the headline findings on low pay from this year's analysis. We describe the scale of low pay in 2014, how this has changed over time and which groups of workers and types of jobs are most likely to be low paid. We also assess Britain's performance on low pay relative to other countries. But first, to contextualise both the short- and long-term trends we identify, and to reinforce the importance of tackling low pay, we review the UK's recent earnings performance more generally.

The pay squeeze has ended…

Until recently, the UK's recovery from the financial crisis has been characterised by the surprisingly strong performance of employment on the one hand, and the unprecedented weakness of pay growth on the other. Following the shock of 2007-08, employment fell, but by much less than would have been predicted given the depth of the downturn. And a two-year jobs surge from 2012 meant that the employment rate gap that opened up during the recession was closed in late 2014, with the 16-64 employment rate now sitting at a record high.

With average weekly earnings still more than £25 below their peak it will be some time before pre-crash earnings are restored

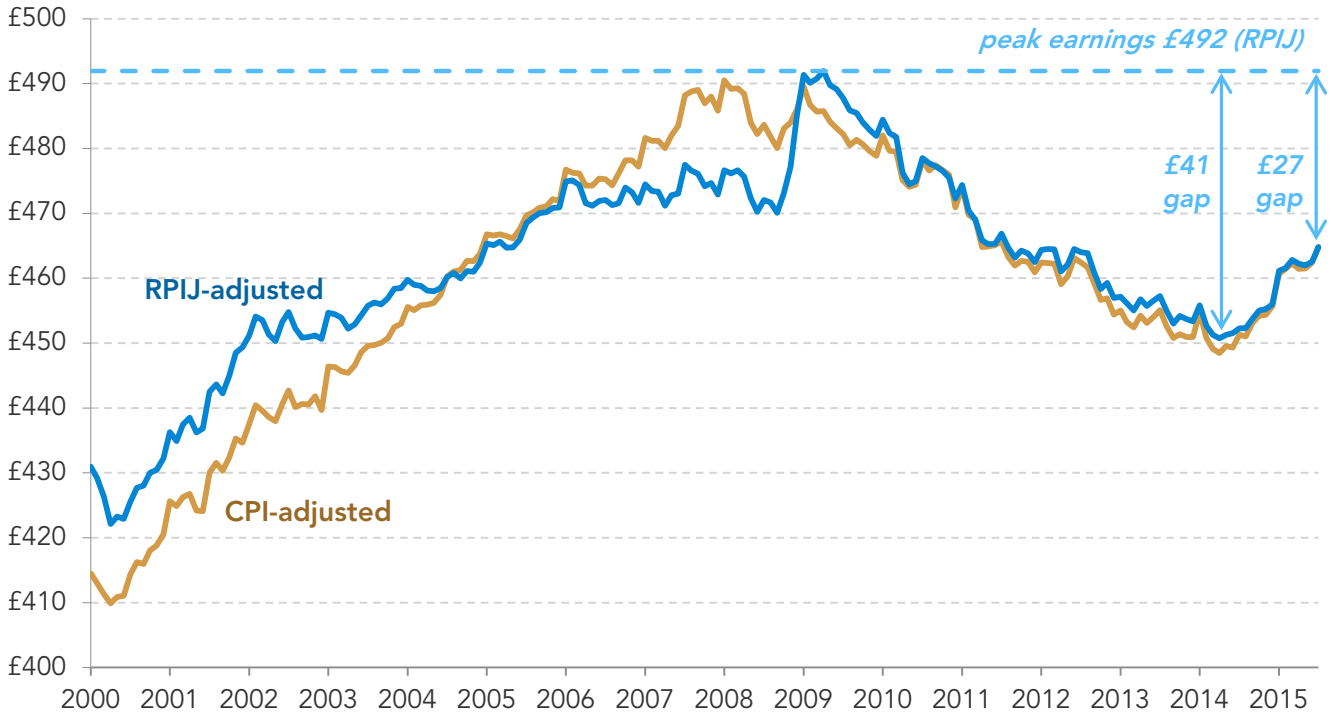
The strength of this recovery has varied across the country, with the jobs gap still not closed in Northern Ireland, the South East, Scotland, the West Midlands and the North East.[1] And the nature of the recovery has shifted over time, with jobs growth initially being driven by a rise in self-employment, and only more recently being supported by a pick-up in full-time employment. Nevertheless, the overall employment recovery has been impressive.

In contrast, pay levels have been hit over the course of the downturn to an unprecedented degree. By mid-2014, when the 'jobs gap' was all but closed, weekly *employee* earnings were still over £40 below peak, as shown in Figure 2.

[1] 16-64 employment rate in May-July 2015 compared to pre-recession peak (March-May 2008).

Figure 2: Average weekly earnings, 2000-2015

Average weekly earnings (regular pay) RPIJ-adjusted to 2015 prices



Notes: UK.

Sources: RF analysis of ONS, *Average Weekly Earnings*

2015 has marked a change of fortunes, with a stall in the employment surge coinciding with a return to rising average wages (using the most timely measure). The tightening labour market, solid but unspectacular growth in nominal pay and very low inflation have contributed to real pay growth above the pre-crisis trend in the spring and summer months. Expectations for further gentle improvements in nominal pay alongside sustained low inflation mean wages are likely to continue playing catch-up over the course of this year.[2] However, with average weekly earnings still more than £25 below their peak it will be some time before pre-crash earnings are restored. And of course, the 'pay gap' relative to where we might have expected them to be in the absence of a crash is much bigger still.

[2] For example, see: *Bank of England, Inflation, August 2015*, August 2015

i Pay data sources and measures

This report focuses on hourly pay. While annual or weekly pay are likely the best measures for describing living standards, hourly pay provides the best means of comparison when trying to assess whether an individual is 'low paid' and allows for comparison with the minimum wage and Living Wages. However, as not everyone is paid hourly, the conversion of reported hours and earnings into hourly pay can introduce extra error.

- There are a number of surveys that are used to capture trends in pay. Each has its own strengths and limitations. They include the following:
- The Annual Survey of Hours and Earnings (ASHE) is based on a random 1 per cent sample of employee jobs, asking employers about the pay of these staff in April of each year. Although not without its problems,[1] it is considered the most accurate measure of employee earnings and particularly their distribution. As such, the ASHE microdata forms the basis of most of the analysis in this report.
- The Labour Force Survey (LFS) is a smaller, quarterly survey of households, including the earnings of individuals within each household. It is considered a timely indicator of pay trends, and contains a wide range of information, but is a less reliable source on levels of pay.
- Average Weekly Earnings (AWE) is a survey of businesses with at least 20 employees (with corrections made using ASHE to attempt to account for smaller firms). Its monthly releases make it the most up-to-date barometer of both regular and bonus pay, but its focus on averages hides the distribution, and it does not capture hourly earnings.
- The Family Resources Survey (FRS) is the primary source for information on household incomes. While information on pay is collected, it is not commonly used to measure individual earnings, not least because it is usually 12-30 months out of date. However, it is the only survey listed here to include the earnings of the self-employed and therefore to allow comparison between the self-employed and employees.

Other data sources include the Living Costs and Food Survey, the Survey of Personal Incomes (which uses a sample of HMRC's records), pay settlements data, and qualitative indicators such as the REC (Recruitment and Employment Confederation) index.

[1] The Institute for Fiscal Studies judges that figures based on ASHE likely underestimate the prevalence of low pay, due to sampling issues and the tendency for employers not to capture all unpaid overtime. By combining data from the LFS and FRS it estimated a higher proportion of workers paid below the Living Wage (London and non-London) in 2013 than implied by our calculations. The IFS concludes that the true figure is likely to lie somewhere in between ours and its. See: Institute for Fiscal Studies, *Green Budget 2014*, February 2014

Having been felt relatively evenly across different income groups…

The fall in real pay over recent years has been broadly felt. First and foremost, different points in the earnings distribution have been similarly affected. As outlined in Box 1, changes at different points in the earnings scale are captured in less timely data (ASHE) than that referred to above, and therefore don't cover the recent period of recovery in average pay. What this data does show us, however, is four distinct periods up to the end of the wage squeeze (summarised in Figure 3):

- The **relatively strong pay growth years of 1997-2002**, when real pay increased by at least 2 per cent a year at all points of the distribution, with particularly strong growth at the bottom – reflecting the introduction of the National Minimum Wage (NMW) – and the top.
- The **slowdown years of 2002-07**, when pay growth dropped to around 1 per cent a year across most of the distribution, remaining slightly faster at the bottomm again due to growth in the NMW.
- The **early downturn period of 2007-09** when pay continued to rise, relatively uniformly across the distribution. This was partly driven by the fact that the RPIJ inflation measure

turned negative as interest rates (and therefore mortgage interest payments) were slashed, and the pattern looks less positive when measured against CPI. The compositional effects of job losses may also have played a role.

» The **falling pay years of 2009-14**, when pay fell by between 1 per cent and 2 per cent a year, with the highest earners doing a little worse, and the lowest earners doing slightly better (again insulated by the NMW, which although it has fallen in real terms has done so less rapidly than average earnings).

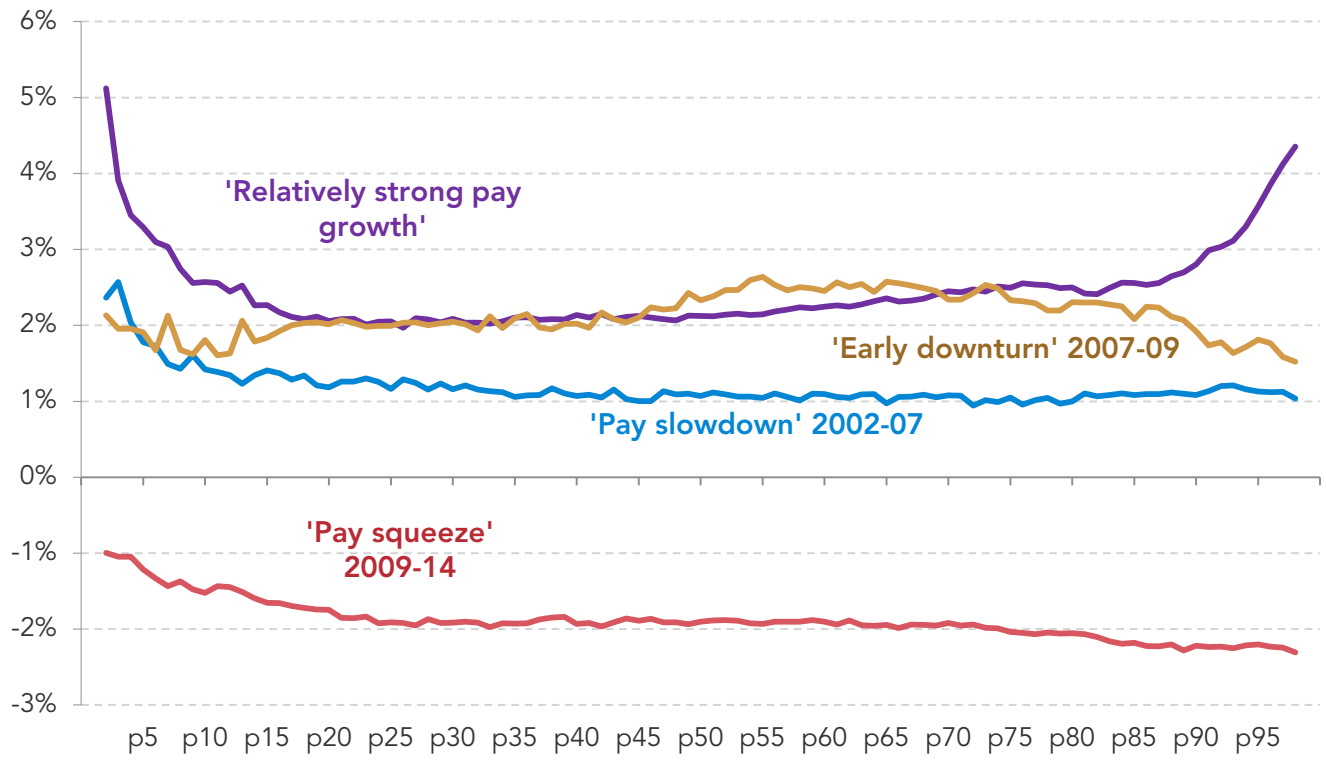
The latest year marks an accentuation of the small distributional differences that characterised the falling pay years, with the lowest earners doing relatively better still during 2013-14 when compared to 2009-13. For example, real-terms pay at the 5th percentile fell by an average of 1.5 per cent a year over 2009-13, but was basically flat (a fall of 0.1 per cent) in 2013-14. This compares to a fall at the median of 1.9 per cent in both 2013-14 and over 2009-13. A stronger increase in the NMW than in the previous four years is likely to have underpinned the relative performance of the lowest earners.

This slowdown – and then fall – in wages since 2002 has been felt at the very top too. However, it is likely that other forms of remuneration, such as bonus payments and profit sharing continued to boost incomes in this part of the distribution.[3]

Figure 3: Average annual growth in hourly earnings by percentile, 1997-2014

Tweet this chart

Average annual real-terms growth (RPIJ-adjusted)



Notes: GB. Hourly earnings excluding overtime. 1st and 99th percentiles removed due to statistical uncertainty.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

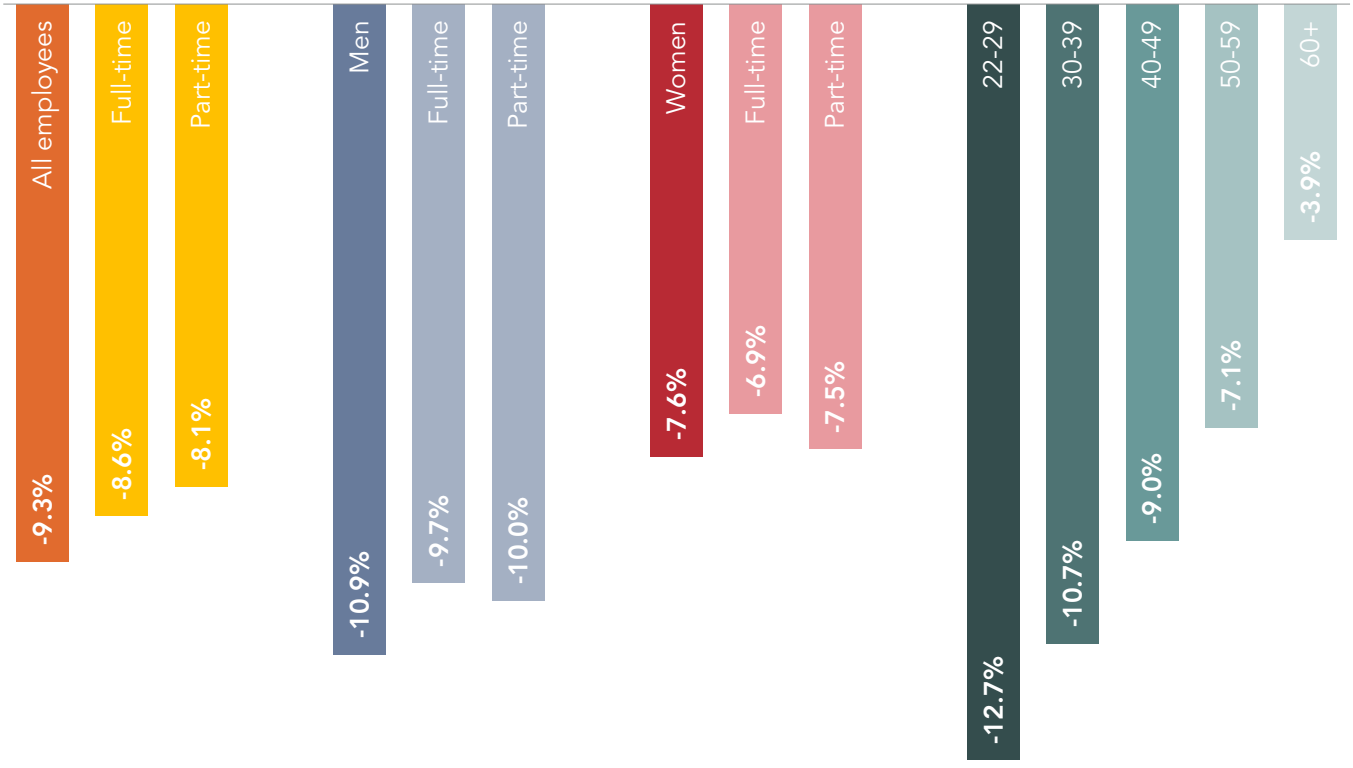
[3] Although the ASHE survey aims to capture bonuses, such irregular payments tend to be under-reported when measuring hourly pay. Dividends and profit-sharing etc. are not recorded.

The wage squeeze has been broad-based from other perspectives too. We now know that some of the enduring weakness of *average* earnings in 2014 in particular was driven by the changing make-up of employment towards lower paying groups and roles.[4] This suggests that an overall downwards shift in the wages of those moving in and out of work has contributed to low average wage growth. However, isolating those employees remaining in work each year shows that they also took a big hit over the course of the falling pay years, with the majority receiving real-terms *pay cuts* in each year.[5]

As well as the continuously employed, most groups of employees have experienced large pay falls. There are some distinctions of course, for example public sector employees were initially insulated, but then experienced similar wage falls to private sector employees and are likely to experience a slower recovery as pay restraint continues. The other noticeable differences are by age and sex, with men experiencing larger decreases in wages than women, and the young faring by far the worst, as shown in Figure 4. These differential experiences across the sexes and generations feed through to the shifting composition of low pay discussed later in this section.

Figure 4: The pay squeeze by age, hours and sex, 2009-2014

Cumulative change in real-terms median pay (RPIJ-adjusted)



Notes: UK. Hourly earnings excluding overtime.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

[4] L Gardiner & M Whittaker, *Why 2014 hasn't been the year of the pay rise*, Resolution Foundation, November 2014

[5] L Gardiner, *Who's been getting a pay rise?*, Resolution Foundation, March 2015

Attention is now turning to how far the recovery can go and how broadly it will be felt…

The changed picture in 2015 – with a flattening out of the employment rate and the arrival of some wage recovery – means that debate is shifting to consider for how long above-trend (catch-up) pay growth can continue; whether employment growth has finished its upward match or just paused for breath; and what the short- and long-term distribution of wage growth will be.

On pay, it remains to be seen whether strong wage growth can be maintained after the current window of opportunity created by low inflation closes. This depends in part on the level of 'slack' still present in the labour market, and the size of the economy-wide output gap. It also depends on when the compositional 'drag' effect on average pay created by the expansion of the workforce to include lower paid groups will fade out.

Because of a lack of data, most of our understanding of pay trends and low pay – including all the analysis presented here – captures employees only and misses the experience of the UK's 4.5 million self-employed workers

A tighter labour market would be likely to fuel the fires of the pay catch-up in the short to medium term. In the longer term, however, the prospects for strong and sustained wage growth will rest on rising productivity. The stagnation in output per worker over recent years has been at the heart of the pay squeeze.[6] Understanding what has driven this poor record (the so-called 'productivity puzzle') and how these trends can be reversed remains a key challenge.

On employment, what matters is not just the pace of new jobs growth but also the types of jobs being generated. The early part of the jobs recovery was characterised by a very sharp increase in self-employment and in part-time employment. More recently, however, full-time employment has been rising more quickly and there is evidence to suggest that we are seeing some self-employed shift into employee roles.

This is an important consideration in the context of this report. Because of a lack of data, most of our understanding of pay trends and low pay – including all the analysis presented here – captures employees only and misses the experience of the UK's 4.5 million self-employed workers. With the much less timely data we *do* have, we know that the earnings of the self-employed are lower on average and have taken an even bigger hit than those of employees during the downturn years, as outlined in Box 3. Hence, official data is likely to have significantly underestimated the depth of the pay squeeze of recent years.[7] Yet, to the extent that the lowest earning self-employed shift into employee roles as the economic recovery strengthens, so our official data might understate the strength of pay growth. Even minimum wage employment might represent a pay increase for these individuals, but would have the effect of dragging down average (employee) pay growth figures.

Moving beyond these issues of composition, the larger question regarding employment growth concerns how far we might now be from 'full employment' and what it would take to get us there.

[6] For a discussion of why pay and productivity have diverged, see: M Whittaker, *A recovery for all? The evolution of the relationship between economic growth and pay before, during and since the financial crisis*, Resolution Foundation, September 2015

[7] And it is possible that the reverse might be true in coming years as earnings rebound, separate from any compositional consideration.

Indeed, this is an issue that has risen in political salience in recent months.[8] As our ongoing work in this area shows, getting there will require both further progress on driving down unemployment and increasing the participation of 'low-activity' groups including single parents, the low-skilled and those with disabilities.[9] It is important to note that these groups are typically lower earning, and therefore (as with the recently self-employed) their inclusion would have implications for Britain's low pay landscape. Job availability and quality will be necessary precursors to attracting these groups to participate, but new policy action will also be required if the jobs recovery is not to stop short of the full employment ambition.

The other big question for the coming years is how renewed wage growth will be shared across the workforce. Will those at the top experience the fastest 'bounce-back', as has been the case coming out of previous recessions?

The other big question for the coming years is how renewed wage growth will be shared across the workforce. Will those at the top experience the fastest 'bounce-back', as has been the case coming out of previous recessions? Or will the slight fall in wage inequality recorded over the downturn be sustained? Importantly, who gains from growth is not immutable, and policy can have a significant impact. Certainly the rapid rising of the legal wage floor via the new 'National Living Wage' (NLW) will have an impact on inequality and low pay, as we explore in Section 2.

All of these – the pace, composition and distribution of the recovery – have potential implications for the scale and make-up of low pay in Britain. The remainder of this section explores the current level of relative and needs-based low pay, how this has changed (or failed to change) over time, and Britain's high proportion of low pay compared to its peers. All suggest that a return to somewhat normal economic conditions should not be cause for complacency.

With rates of relative low pay remaining stubbornly flat and needs-based measures rising…

The shape of recent pay changes across the earnings distribution has had some perverse effects on commonly-used measures of low pay. The main definition is a *relative* one, focusing on hourly wages that are low in comparison to those of typical workers. This means that broadly uniform falls in pay across the board have led to little change in such measures in recent years. So despite the fact that median pay has fallen, this has not led to a great narrowing of the gap between low and middle earners.

A lack of change on relative measures of low pay should not lead to the conclusion that low pay is no more of an issue now than it was a decade ago. Stagnating and falling wages mean that increasing numbers of workers will have found it hard to make ends meet, which is illustrated by measures of low pay that are linked to basic needs and living costs.

Both *relative* and *needs-based* measures are helpful in understanding developments in low pay, and this report therefore covers both approaches:

[8] The government has announced a statutory duty to report on its progress towards full employment.

[9] P Gregg & M Whittaker, *Completing the job: The pursuit of full employment*, Resolution Foundation, July 2015

» Our core **low pay** measure is a relative one, and captures *hourly wages below two-thirds of gross median hourly pay (excluding overtime) for all employees*. We calculate median hourly pay in Britain in April 2014 (the latest year for which data is available) to be £11.51,[10] making the low pay threshold we use throughout this report £7.67, equivalent to gross earnings of around £14,000 a year for a 35-hour working week.

» We also track a second relative measure, **extreme low pay**, capturing *hourly wages below one-half of gross median hourly pay (excluding overtime) for all employees,* or £5.75 an hour. This is below the level of the adult NMW in April 2014 (£6.31) and therefore affects relatively few people. However consideration of this measure over time is helpful in understanding the impact of the minimum wage.

» Our third indicator is needs-based – the **Living Wage** measure – capturing *hourly wages below location-specific voluntary Living Wage rates*: £8.80 in London and £7.65 elsewhere in Britain in April 2014.[11] These wage rates are calculated based on socially-defined levels of the goods and services required to deliver a minimum acceptable quality of life for recipients, accounting for the support provided by in-work welfare and averaged across family types. Variation in individual and household circumstances, and local living costs, mean that single wage rates such as these can never be 'pure' needs-based measures.[12] However, they nonetheless provide a good indication of how wages at the lower end have moved relative to living costs and basic needs in recent years. These voluntary Living Wages should not be confused with the new National Living Wage – essentially the National Minimum Wage for over-24s from April 2016 – which is not a needs-based measure (its potential impacts are discussed in Section 2).

As well as these three measures of low pay, we track a fourth measure that focuses specifically on the impact of the minimum wage, the key policy intervention at the low end of the labour market in recent decades:

» Our final indicator is policy specific – the **on NMW** measure – capturing *those earning the age-specific minimum wage or up to 1 per cent above it*.[13] In April 2014 the adult NMW was £6.31, so those over 20 are captured within our on NMW measure if they earned £6.37 or below. This measure is useful for considering the share of employees whose wage levels are likely to be determined by government policy each year.

Trends in each of these low pay measures are set out in Figure 5.

[10] This figure relates to GB employees only, as captured in ASHE microdata available to researchers. It is distinct from the ONS published median hourly pay figure of £11.54, which covers the UK and excludes employees not on adult rates of pay.

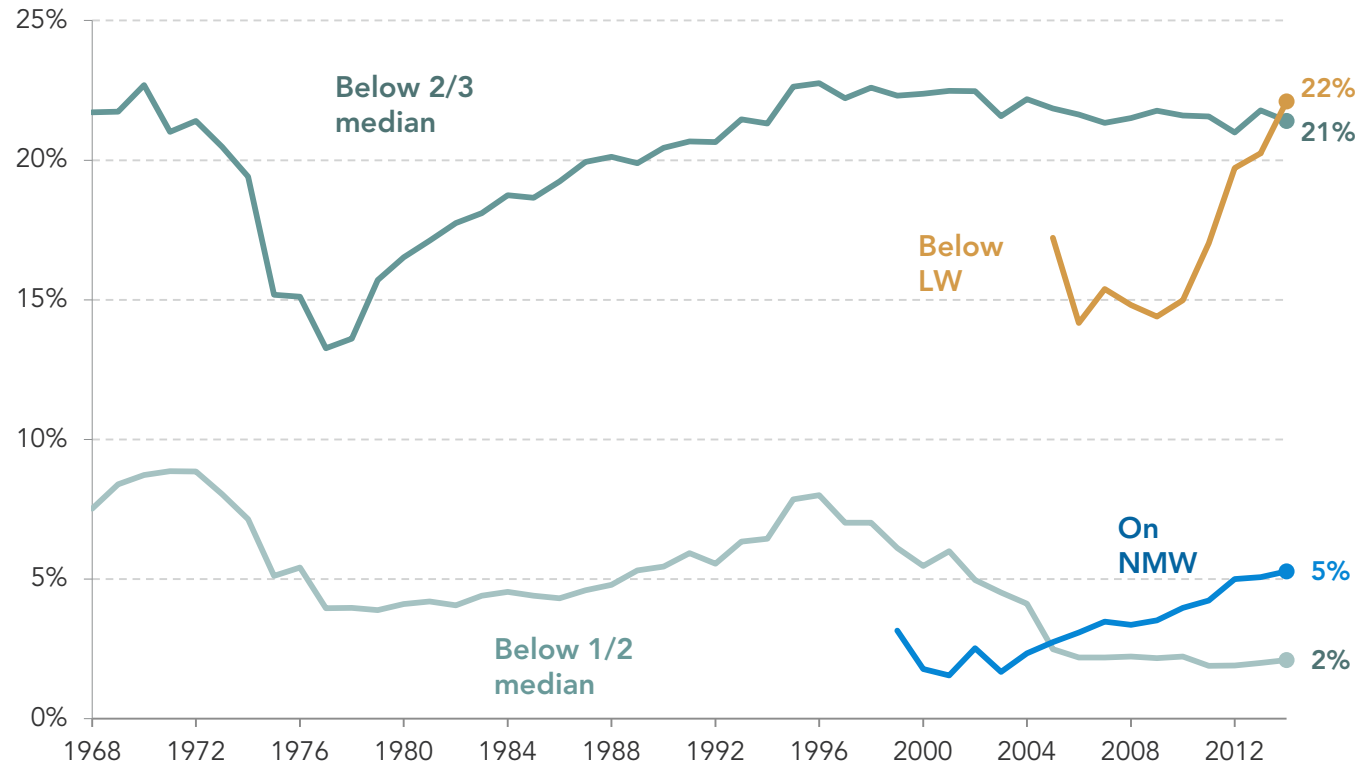
[11] The London rate is set by the Greater London Authority, while the outside-London rate is set by the Centre for Research in Social Policy. Methodologies for each calculation are provided on the Living Wage Foundation's website: www.livingwage.org.uk

[12] As well as providing an average measure across family structures and living situations, the outside-London Living Wage is subject to an annual cap on its increase, in order to avoid placing an 'unreasonable' burden on employers to meet sharp increases in living costs. The 'reference' (uncapped) outside-London Living Wage has risen rapidly in recent years meaning the applied figure has been subject to the cap. In April 2014, the reference rate stood at £9.08. This figure could be considered a better reflection of the wages needed to deliver an acceptable standard of living outside London. For this reason, the Living Wage is not a 'pure' needs-based measure.

[13] Our measure extends slightly above the age-specific NMW rates because of uncertainty in the hourly wage data and because many employees are paid a few pence above the rate itself in order that their employers not be considered 'minimum wage businesses'. However, in practice, their wages are strongly determined by the rate of the NMW, particularly because the NMW has grown by at least 1 per cent each year since 2001, meaning that those up to 1 per cent above it are likely guaranteed a pay increase. Apprentices paid more than their legal minimum (£2.68 in April 2014) but less than the usual minimum for their age group are nonetheless counted as 'on' the NMW.

Figure 5: Proportion of employees below selected low pay thresholds, 1968-2014

Proportion of employees



Notes: GB. Hourly earnings excluding overtime. See Annex 1 for methodological details, including how different datasets are combined.

Sources: RF analysis of DWP, *Family Expenditure Survey* (1968-1981); ONS, *New Earnings Survey Panel Data* (1975-2013); ONS, *Annual Survey of Hours and Earnings* (1997-2014)

Looking first at our core low pay measure, we find that **just over one-in-five (21 per cent, or 5.5 million) employees earned less than two-thirds of the hourly median in April 2014**.

Following major improvements associated with the Equal Pay Act of 1970 and the incomes policy of the mid-1970s, the incidence of low pay on our core measure climbed steadily over the 1980s and 1990s. This reflects growing wage inequality in this period, with the gaps between the top and bottom, and the middle and bottom (which is most relevant to our low pay measure) both widening.[14] Having returned to its late 1960s level in the mid-1990s the proportion of employees in low pay has subsequently changed very little, with wage inequality in the lower half compressing slightly (as shown previously in Figure 3) even as the very highest earners continued to move away from the rest of the workforce.

[14] For details see: Office for National Statistics, *UK Wages Over the Past Four Decades – 2014*, July 2014

Figure 5 also highlights the steep decline in **extreme low pay** (below one-half of median) from 1997 onwards, reflecting a squeezing of wage differentials below the core low pay threshold as employers responded, in advance, to the introduction of the NMW in 1999. As previously mentioned, the adult NMW lies above our extreme low pay threshold. The very small proportion of workers that remain below it comprise those subject to youth and apprentice rates, and likely some contraventions of the legal minimum by employers (knowingly or otherwise) and erroneous data. There is a clear necessity for government to continue recent progress on committing resources and enforcement powers to deal with the important minority of cases where employers are breaking the law.

The idea that the advent of the NMW precipitated a squeezing of differentials below the standard low pay threshold is underlined in our measure of the **proportion of employees on the NMW**, which has **risen steadily to 5 per cent (1.4 million) in April 2014**. In effect, the 'long tail' of low pay that existed up to the late-1990s has been replaced by a 'spike' of workers paid at or around the NMW rates.

The NMW has therefore changed the nature of the low pay challenge: mostly eradicating extreme and exploitative incidences of low pay, but causing increasing bunching at the bottom end rather than any significant 'ripple' effects. As well as growing proportions of employees earning the minimum wage, and therefore effectively having their wages determined by government, previous research has highlighted that a rising share of these individuals remain at or around the NMW for a significant period of time.[15] As we discuss in Section 2, the new NLW for over-24s is likely to expand such patterns to an even larger share of employees. In this light, the need to consider how government and other actors can promote pay above statutory minimums and progression from low levels of pay takes on growing importance.

Finally, Figure 5 shows that **22 per cent of employees (5.7 million) earned less than a Living Wage in 2014**. This figure has increased sharply from 14 per cent in 2009, driven by the value of the Living Wages (both within and outside London) rising rapidly in relation to median earnings (which have been falling), reflecting the squeeze on living standards that has characterised the recent downturn.[16] 2014 is the first time that the share of employees earning below the Living Wage is higher than the standard low pay measure.

[15] A Corlett & M Whittaker, *Low Pay Britain 2014*, Resolution Foundation, October 2014

[16] The proportion below the reference Living Wage – the raw, needs-based measure before the imposition of annual increase caps – was higher at 35 per cent (9 million) in April 2014. This is an increase from 32 per cent in the previous year.

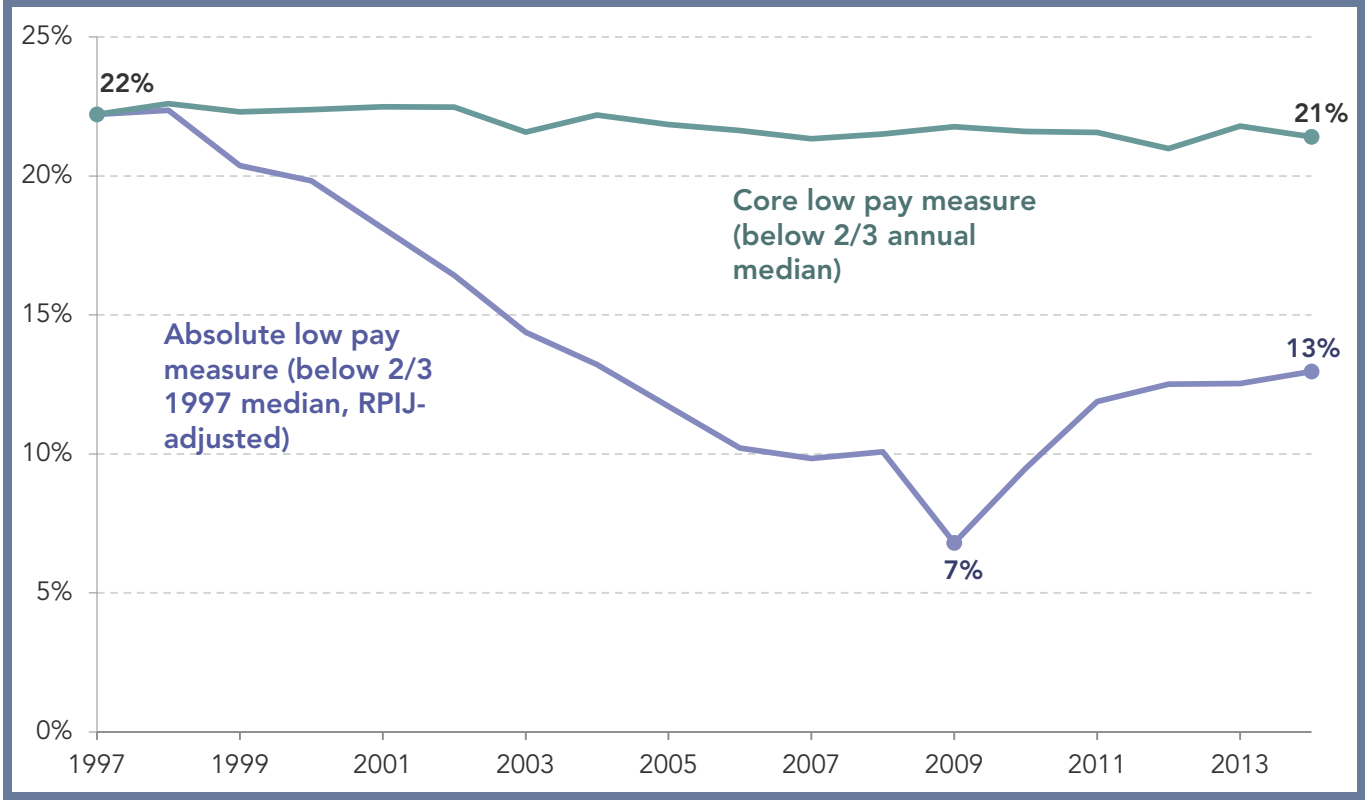
i Box 2: An absolute measure of low pay

Our core low pay measure is relative and therefore fails to capture overall improvements (or declines) in real wages across the distribution. An alternative way of thinking about low pay – and one that is sometimes employed in poverty statistics – is to consider 'absolute' measures, which show how the purchasing power of the lowest earners develops over time. As well as our core benchmark (the proportion below two-thirds of median pay each year), Figure 6 shows an absolute low pay measure in the form of the proportion below 1997's low pay threshold, simply adjusted for RPIJ inflation thereafter.

Thanks to real pay growth, the proportion fell steadily from 1997 until the financial crisis, more than halving in ten years. However, since 2009 the proportion has increased as real wages have been squeezed.

Measures such as this one emphasise the fundamental importance to low paid workers of sustained productivity and real pay growth, in addition to considerations of how the fruits of such growth are distributed.

Figure 6: Proportion of employees below moving and fixed low pay thresholds, 1997-2014



Notes: GB. Hourly earnings excluding overtime. See Annex 1 for methodological details.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

i Box 3: The earnings of the self-employed, and their experience of low pay

The unprecedented squeeze on wages that had, until recently, characterised the post-downturn period is generally described in reference to employees only. This is because self-employed earnings are harder to capture, and most of our official sources of pay data do not do so (see Box 1 for details). However, less-timely data shows that typical self-employed earnings are lower than those of employees (£210 per week compared to £385 for employees in 2013-14) and also took a much bigger hit during the downturn, having fallen by nearly one-third (31 per cent) from their pre-crash peak, compared to a fall in employee earnings of 8 per cent.[1]

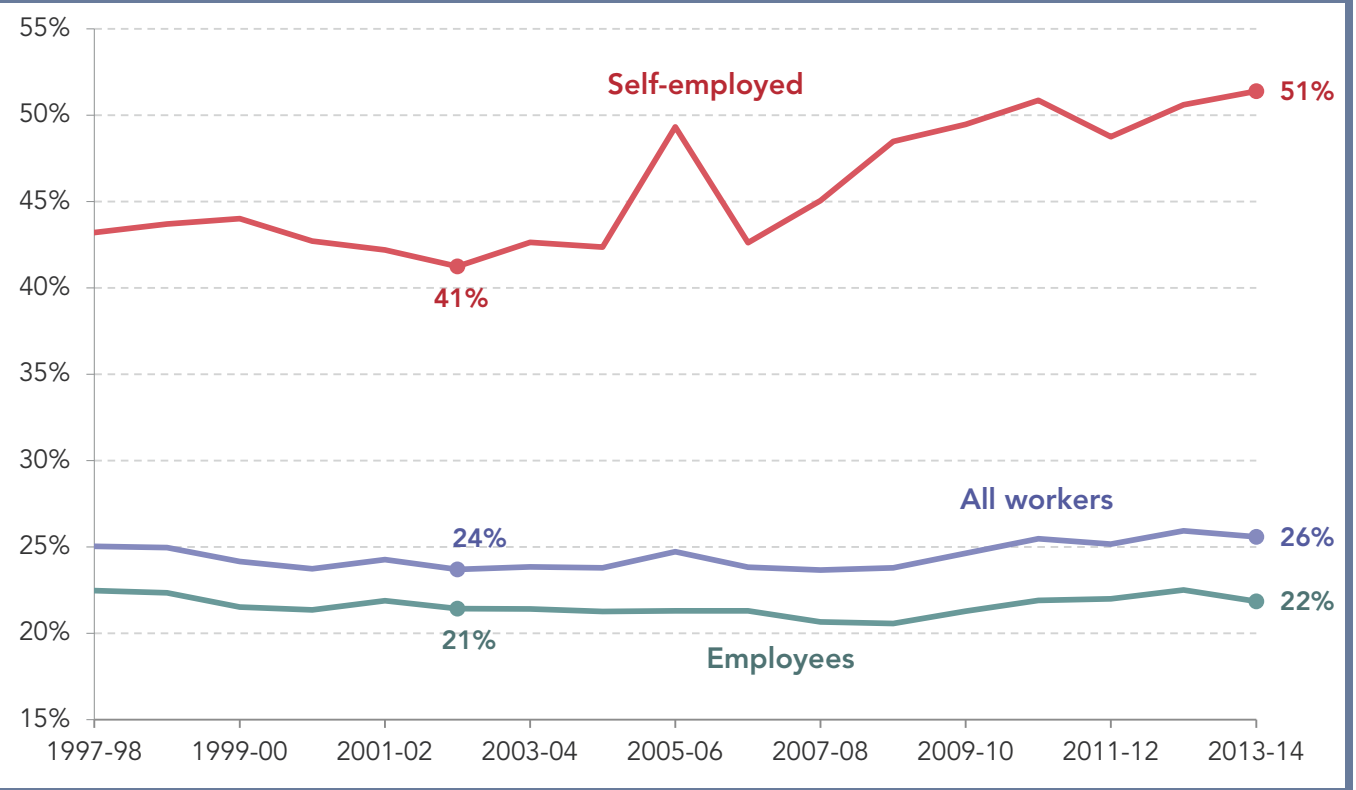
Particularly because the number of self-employed people was rising strongly at the time, this implies that the much-discussed earnings squeeze would look even worse were they included in the picture. We estimate that the earnings of all workers have fallen between 20 and 30 per cent further than the story usually told in relation to just employees.[2]

Not only are (weekly) self-employed earnings lower and have fallen further, they also appear to be more unequal than employee earnings, particularly at the bottom end of the distribution. This may reflect the fact that the NMW doesn't apply to the self-employed, as well as their ability to run down their hours and rates in tough times or to fit around other commitments. But it does raise the question – what is the self-employed experience of low pay?

Restricting our analysis to full-time weekly earnings (similar to the measure used by the OECD for international low pay comparisons) for the self-employed and employees combined, we can consider what the incidence of low pay on an 'all worker' measure looks like, summarised in Figure 7. For employees this shows a similar picture to our preferred hourly all-employee measure described above. Around one-in-five full-time employees are below the all worker low pay threshold, a rate that has remained flat over the period considered.

Figure 7: Proportion of the self-employed and employees below an 'all worker' low pay threshold, 1997-2014

Proportion of full-time workers earning below 2/3 median weekly earnings



Notes: UK. The low pay threshold is based on the median for full-time self-employed workers and employees combined. Workers classified by their main employment status, however earnings measures capture both self-employed and employee earnings for those with income from both.

Sources: RF analysis of DWP, *Family Resources Survey*

[1] Figures are in real terms, adjusted using RPIJ. Source: RF analysis of DWP, *Family Resources Survey*

[2] L Gardiner, 'How the exclusion of the self-employed might obscure the 2015 earnings recovery', *Resolution Foundation blog*, 21 January 2015

Figure 7 shows that low pay is much more common among the self-employed, with around half (51 per cent) low paid on this measure in 2013-14. This is perhaps unsurprising given that they typically earn less, so are concentrated at the lower end of the all worker earnings distribution. What is striking, however, is the steady increase in low pay among the self-employed since the early 2000s, with its prevalence in this group having risen by a quarter since 2002-03. This implies that the dramatic fall in self-employed earnings in recent years has been felt strongly among lower earners (even when isolating those working full time, as this analysis does), or that there has been a compositional shift towards lower earners within the self-employed group, or most likely both.

The drivers of high and rising low pay among the self-employed will be complex, and some may unwind in coming years, particularly if the large increase in self-employment that characterised the early part of the employment recovery goes into reverse. Nonetheless, this analysis highlights the need to consider how low pay affects those outside of traditional employee jobs, and what the appropriate policy response might be.

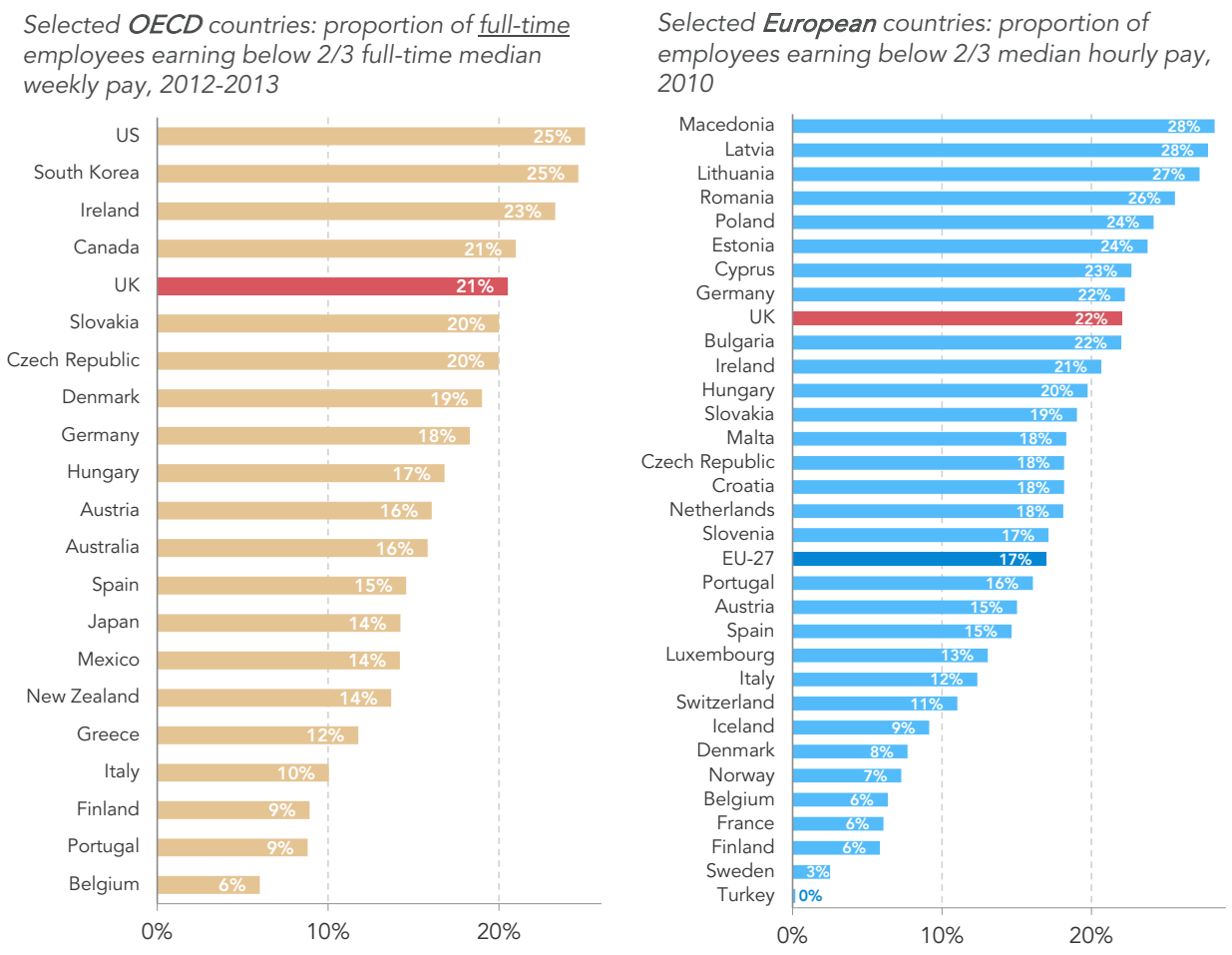
Leaving Britain at the wrong end of the international low pay table…

Given that no modern labour market delivers equal outcomes to all workers, some level of relative low pay is likely to always be a feature of developed economies. To put the figures above into context, we consider how Britain's performance on low pay compares internationally.

Figure 8 summarises the UK's (rather than just Great Britain's) position in two low pay international league tables. The measure of low pay used to compare OECD countries is limited to full-time employees, rather than the all-employee measure we use (and captures weekly earnings rather than hourly). Somewhat less timely European data uses a measure much more similar to ours, the only difference being that employees at very small firms are excluded. For this reason the rate of low pay in any given country differs between analyses, however it is clear from Figure 8 that Britain has among the highest incidence of low pay when compared with either OECD or European economies.

Figure 8: International comparisons of the proportion of employees in low pay, latest data

Tweet this chart



Notes: OECD data refers to 2013 for countries for which data is available, 2012 otherwise. European data excludes those in firms with fewer than 10 employees.

Sources: RF analysis of OECD statistics and Eurostat, *Structure of Earnings Survey*

What explains this poor international performance? The drivers are likely to be complex and various, but we might first consider the growth in inequality in the 1980s and 1990s, which, while it was a common feature of developed economies, was felt to differing extents.[17] Another possible explanation is the extent to which Britain is creating notably lower quality, lower paying versions of roles in sectors such as hospitality, retail and social care than many other countries. We might also point to a range of public policy choices over the past three decades that have eroded those labour market institutions that have done much in other countries to mitigate the forces bearing down on pay at the bottom of the labour market. Taken together it is apparent that, while the particular incidence and composition of low-wage work in any given country is the result of unique patterns of production and employment, these patterns are shaped in part by the choices of policymakers.

But some groups are more at risk of low pay than others…

While full details of the characteristics of the low paid, and the evolution of this group over time

[17] J Plunkett, Growth without gain? *The faltering living standards of people on low-to-middle incomes*, Resolution Foundation, May 2011

are provided in Section 3, Box 4 provides a summary of the position in April 2014. Although there is evidence of low pay across all groups and industries, this snapshot shows that:

» In terms of **employee characteristics**, women, the young, the oldest workers and those outside of London are most at risk.

» In terms of **job characteristics**, prevalence is highest among workers in lower- and middle-skilled occupations such as elementary occupations (including cleaners, security guards, catering assistants and leisure workers), sales and customer services (retail assistant, cashiers, telephone salespersons and customer services for example) and personal services (covering social care and childcare for instance). The risk of low pay is also higher among those who work part time or on temporary contracts, and in either small or very large firms.

» Looking across **industrial sectors**, low pay is most likely to occur among those who work in the hotels and restaurants sector, wholesale and retail and administration and support services. It is also much more prevalent in the private sector than in the public or third sectors.

Although not explored further in this report, EU statistics from 2010 (used in Figure 8) also allow us to look at the varying prevalence of low pay by level of education. While their figure suggests 22 per cent of all workers are low paid, they find that only 3 per cent of those with tertiary education are low paid. Of those with intermediate education (EQF levels 3 and 4: equivalent to good GCSEs, or AS/A levels), 11 per cent are low paid. But for those with the least education, more than one in three (35 per cent) are low paid.

i Box 4: A summary of those most at risk of low pay in April 2014

Overall

» 5.5 million employees are low paid, representing 21% of all workers.

» 0.5 million (or 2%) are in extreme low pay.

» 5.7 million (or 22%) earn less than the prevailing Living Wage in their area.

» 1.4 million (or 5%) earn the National Minimum Wage or just above it.

By employee profile

» 3.3 million women (or 26%) are low paid.

» 1 million (or 78%) of those aged 16-20 are low paid; as are 0.8 million (or 42%) of 21-24 year olds.

» 16-20 year olds account for 84% of the total number in extreme low pay.

» 0.4 million (or 23% of) workers aged 61 and above are low paid.

» At least one-in-four employees in the East Midlands, the West Midlands, Wales, Yorkshire and the Humber and the North West are low paid.

» London is the only region in which more workers earn below the Living Wage (19%) than are low paid (12%).

By job profile

» 3 million (or 42% of) part-time employees are low paid, comprising 56% of all the low paid.

» 35% of employees on temporary contracts are low paid, but they account for just 15% of the total.

» 1.9 million employees (or 60%) in elementary occupations are low paid.

» As are 1.2 million (56%) in sales and customer services occupations.

» And 0.9 million (37%) in personal services.

» These three occupations together account for 72% of the low paid total, and 70% of those in extreme low pay.

» 0.7 million workers (or 35%) in very small firms (fewer than 10 employees) are low paid; as are 1 million (28%) in small firms with 10-49 employees.

» At the other end of the scale, 1.4 million workers (or 29%) in very large firms (5,000+ employees) are low paid.

By industrial sector

» 0.9 million (or 68% of) employees in the hotels and restaurants sector are low paid.

» 1.5 million (or 39%) in wholesale and retail are low paid, representing 27% of the total.

» 0.6 million (or 37%) in administration support services are low paid.

» The health and social work and education sectors account for 22% of the low paid, despite below-average prevalence.

» 4.7 million (or 27% of) employees in the private sector are low paid, accounting for 85% of the total.

» Just 8% of employees earning less than a Living Wage are employed in the public sector.

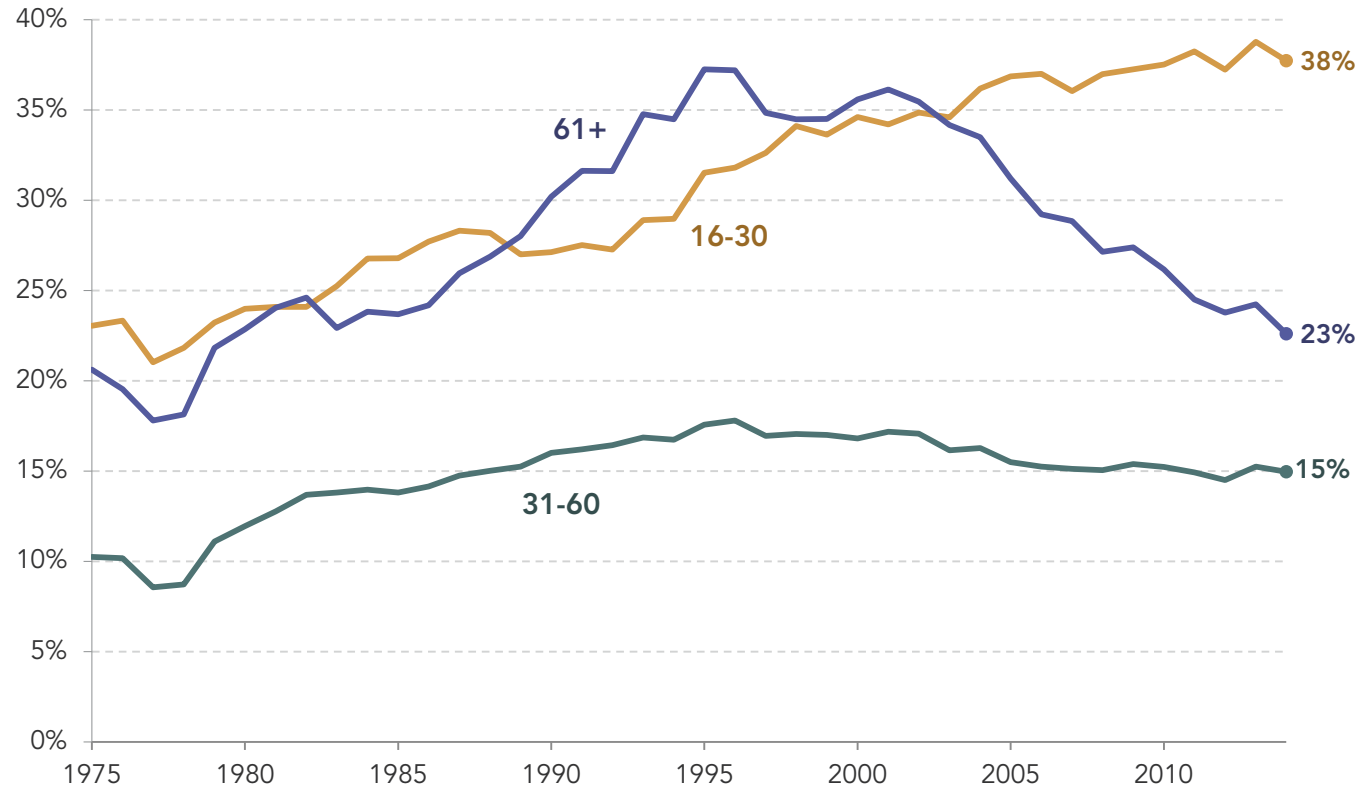
And the composition of the low paid has shifted in recent decades

Having summarised the scale and make-up of low pay in 2014, it is also informative to look at how this has change over time.

Many of the headline figures relating to relative low pay have changed little in recent years, while those relating to needs-based low pay have tended to increase as the earnings squeeze has taken hold. However, over a longer timeframe there are some interesting differences across employee and job types. Again, Section 3 provides full details, but here we consider some of the most striking trends, which relate to age, sex and working hours.

Turning first to age, Figure 9 shows how the links between age and low pay have changed significantly over time. This shows the proportion of low paid employees in three broad age groups. We noted above that younger and the very oldest employees are significantly more likely to be low paid than prime age individuals. In part this reflects the traditional trajectory of earnings over the life course. However, while the trend among the middle group largely reflects that identified in Figure 5 – with low pay increasing steadily over the course of the 1980s and early-1990s before plateauing more recently – the recent direction of travel looks very different in the younger and older groups.

Figure 9: Proportion of employees in low pay by broad age group, 1975-2014



Notes: GB. Hourly earnings excluding overtime. See Annex 1 for methodological details, including how different datasets are combined.

Sources: RF analysis of ONS, *New Earnings Survey Panel Data* (1975-2013); ONS, *Annual Survey of Hours and Earnings* (1997-2014)

Among 16-30 year olds, the proportion in low pay has continued to increase, rising from 32 per cent in 1996 to 38 per cent in 2014. In contrast, among older workers the level has fallen over the same period, from 37 per cent to 23 per cent – still higher than the national average but much closer to it.

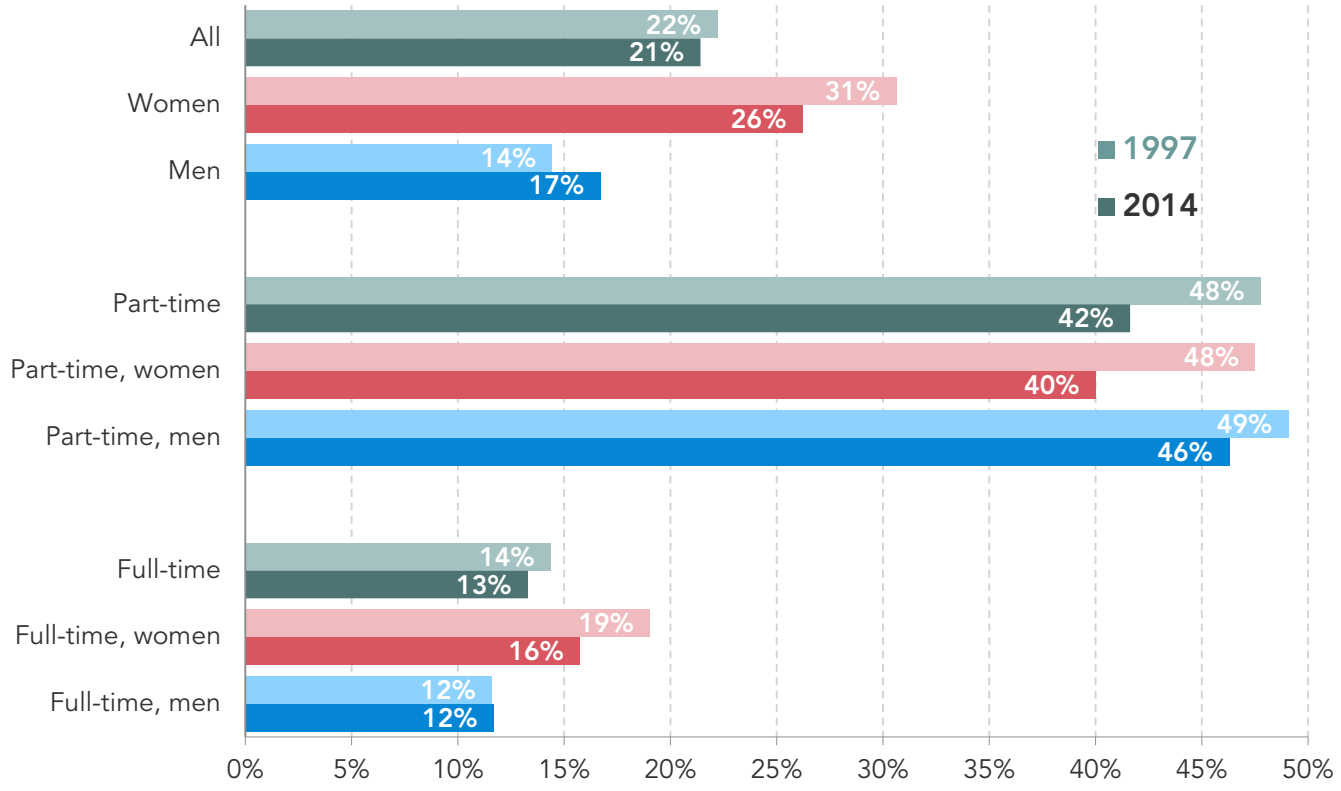
The trend among younger workers may in part reflect the growth of student employment, although it is noticeable from the more detailed breakdown provided in Section 3 that the pattern is by no means restricted to workers under 21 – the most common years of study. For older workers, we might speculate that the improvement is down to a combination of a general increase in continued full-time employment beyond 60, the impact of the NMW, cohort effects (with today's older workers likely to be higher skilled than those that went before) and the introduction of age discrimination legislation.

Despite these trends, the proportion of the low paid accounted for by each of these three broad age groups has altered little over time. That is, while the risk of being low paid for younger and older workers has changed, the overall composition of low pay looks much as it did in earlier decades. Such stability can be explained by the fact that reductions in low pay among older workers and increases among younger workers have been offset by a shift in the composition of the workforce, with older workers accounting for an increasing share of the overall labour market.

Turning to hours and sex, Figure 10 shows the divergent developments in the proportion of men and women, and full-time and part-time employees, below the low pay threshold between 1997 and 2014. Focusing first just on the split by sex, it shows that relative stability in the prevalence of low pay for all employees masks a decrease for women and a small increase for men since the late

Figure 10: Proportion of employees in low pay by hours and sex, 1997 and 2014

Proportion of employees below 2/3 of all-employee median pay



Notes: GB. Hourly earnings excluding overtime.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

1990s. The longer time series provided in Section 3 show that these changes are a continuation of longer-term trends stretching back to the mid-1980s.[18] Despite these divergent experiences women continue to account for the majority of low paid employees (61 per cent, down from a peak of 77 per cent in the early 1970s).

The overall stability of low pay also masks divergent trends for part-time and full-time employees. Figure 10 shows that the share of full-time employees in low pay has been relatively stable since 1997, like the overall rate. However, the prevalence of low pay among part-time workers has fallen. The reason that the decline in part-time low pay is not reflected in the overall total is that there has been an ongoing 'compositional' shift towards part-time working in this period, and low pay is still much more common when on part-time hours.

Finally, Figure 10 allows us to consider sex and working hours in combination. The prevalence of low pay among women has fallen overall and when split into full-time and part-time employees, but the trends for men have diverged: low pay has *risen* slightly for all men, *fallen* among part-time men and *remained stable* among full-time male employees since 1997. What this tells us is that the small increase in male low pay since the late 1990s has been driven by the compositional shift towards part-time work (in which low pay is more likely) mentioned above, and that this shift has more than offset the reduction in the prevalence of low-pay among male part-time workers.

[18] Stretching back further, Section 3 also shows a very sharp decline for women in the early 1970s, likely reflecting the impact of the Equal Pay Act of 1970 and the incomes policy of the 1974-1977 Labour government.

Section 2

What impact will the National Living Wage have?

Having looked at the picture in 2014, we cast forward to how Britain's prevalence of low pay might look in 2016 (when the new National Living Wage will have been introduced) and 2020 (when it is expected to be at least £9). This increased wage floor for those aged over 24 will have a significant effect on Britain's rate and depth of low pay.

The National Living Wage is set to benefit six million employees by the end of the decade…

The Chancellor's surprise announcement at the Summer Budget of the introduction of a new 'National Living Wage' from April 2016 is set to have a significant effect on Britain's low paid workforce.

Somewhat confusingly, the new minimum for over-24s does not relate to needs-based measures like the voluntary Living Wage. Its initial rate of £7.20 is instead designed to correspond to roughly 55 per cent of the median hourly pay of employees over 24. Over time, this 'bite' is due to increase – reaching 60 per cent by 2020 – with the Low Pay Commission (LPC) to recommend rates each year with this goal in mind. As such, the wage floor for the over-24s will, for the first time, be directly linked to wage growth in the middle of the distribution. The Office for Budget Responsibility (OBR) estimates that the 60 per cent bite will correspond to a rate of over £9 in 2020.

Two previous Resolution Foundation reports have illustrated who is set to gain from the NLW and which industries will be most affected.[19] We briefly revisit some of the key findings below, before going on to consider the implications for low pay.

Overall, six million employees (around one in four) are set to benefit from the NLW by 2020 (and 1.9 million upon its introduction in 2016). For just over half of the 2020 beneficiaries, this will be a direct consequence of having their pay rate brought up to (or above) the new wage floor. The remainder of the beneficiaries are expected to already be earning the NLW or slightly more, but gain nonetheless as pay scales adjust to reflect the new floor. As with the prevalence of low pay, part-time workers, women and those aged 25-30 are among those most likely to benefit.

And the benefits are substantial for many. Of those winners currently earning less than the NLW, the average gross gain is expected to be over £1,200 a year. However, once tax payments and the withdrawal of means-tested benefits are accounted for, the impact on *net household* incomes will be much reduced for many. Taken in the round with the £13 billion of cuts to working-age benefits also announced in the Summer Budget, many low to middle income households will find themselves worse off even after the wage floor is raised.

With the NLW being set as a proportion of the national median rate of pay (for those 25 and over), its impact will vary across the country. For example, 28 per cent of workers are likely to benefit in

[19] C D'Arcy, A Corlett & L Gardiner, *Higher ground: Who gains from the National Living Wage?*, Resolution Foundation, September 2015; C D'Arcy & A Corlett, *Taking up the floor: Exploring the impact of the National Living Wage on employers*, Resolution Foundation, September 2015

Yorkshire and the Humber by 2020, but in London – where pay tends to be higher – the proportion is only half this.

Similarly, the costs associated with paying the NLW will vary across firms. Lower paying parts of the economy are likely to be most affected. Around one in two workers in the hospitality industry are likely to benefit, compared to just 6 per cent in finance, for example.

While the overall success of the NLW will depend on the details of its implementation, it is clear that is has the potential to make a sizeable contribution to tackling the low pay problem

Drawing on evidence from increases in the NMW, employers can be expected to adapt in a variety of ways. Among other options, firms are likely to respond through some combination of efficiencies and productivity increases; price increases; lower profits; and changed pay structures. The OBR has projected around 60,000 net job losses as a result. But given that the bite of the NLW will be unusually high by international and historical standards, there is a particularly high level of uncertainty surrounding the response this time around. That is why it is vital that the LPC plays a continued role in advising on minimum wage policy.

Helping to reduce the prevalence of 'low pay'...

While the overall success of the NLW will depend on the details of its implementation, it is clear that is has the potential to make a sizeable contribution to tackling the low pay problem set out in Section 1. It is possible to model just how much of an impact it might have. In doing so, we assume that the NLW has reached 60 per cent of the over-24 median by 2020, and we make no attempt to model other changes that may take place in the economy over this period.[20]

Because under-25s tend to be lower paid, the target bite of 60 per cent of the over-24 median corresponds to around 65 per cent of the all-employee median. This compares to our low pay threshold of two-thirds (67 per cent) of the all-employee median. A first analysis therefore suggests that those paid the NLW exactly will be pushed close to, but not over, the low pay threshold. However, we might expect some workers to cross the threshold as a result of 'spillover' effects from the NLW.

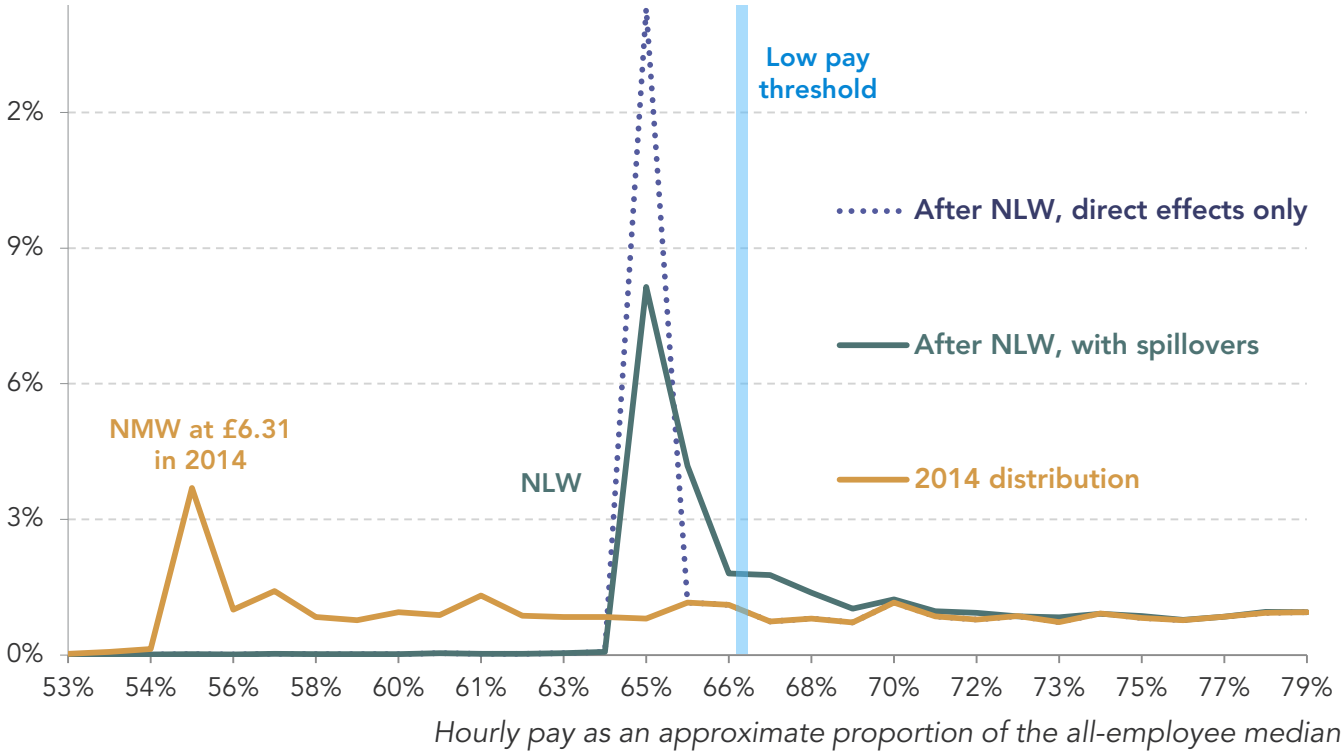
Figure 11 shows this for those aged 25 and over. It presents the hourly pay distribution as recorded in 2014, with a clear spike at the NMW rate of £6.31 (around 55 per cent of the 2014 all-employee median). It then considers the impact of imposing a new floor at 60 per cent of the median earnings of those aged 25 and over (around 65 per cent of the overall median), shifting the (now much bigger) spike to this point. Once we account for spillover effects, we find the spike reduces in size (though remaining twice the size of the original NMW one) with spillover effects pushing a group of employees over the low pay threshold (two-thirds of the overall median).[21]

[20] For example, we don't account for possible changes in the shape of the wage distribution beyond the impact of a higher minimum for many employees, changes in the composition of employment, or reductions in either employment or pay in response to the NLW. For more detail on our methods and assumptions see Annex 1, as well as the Resolution Foundation's two previous reports on the NLW.

[21] Note that the bite of the NLW will vary across the year, owing to its fixed annual level each month but a rising median. The prevalence of low pay may therefore also vary across the year, given how close to the low pay threshold the NLW will be. In addition, the extent of spillover effects is uncertain. For a discussion and exposition of this uncertainty, see Annexes 2 and 3 of: C D'Arcy, A Corlett & L Gardiner, *Higher ground: Who gains from the National Living Wage?*, Resolution Foundation, September 2015

Figure 11: The 25+ low pay distribution, before and after the NLW

Proportion of employees aged 25 and over



Notes: GB, based on 2014 data. Hourly earnings excluding overtime. Proportion of employees in each 10p 'bucket' of hourly earnings, converted to a proportion of the all-employee median. See Annex 1 for methodological details.

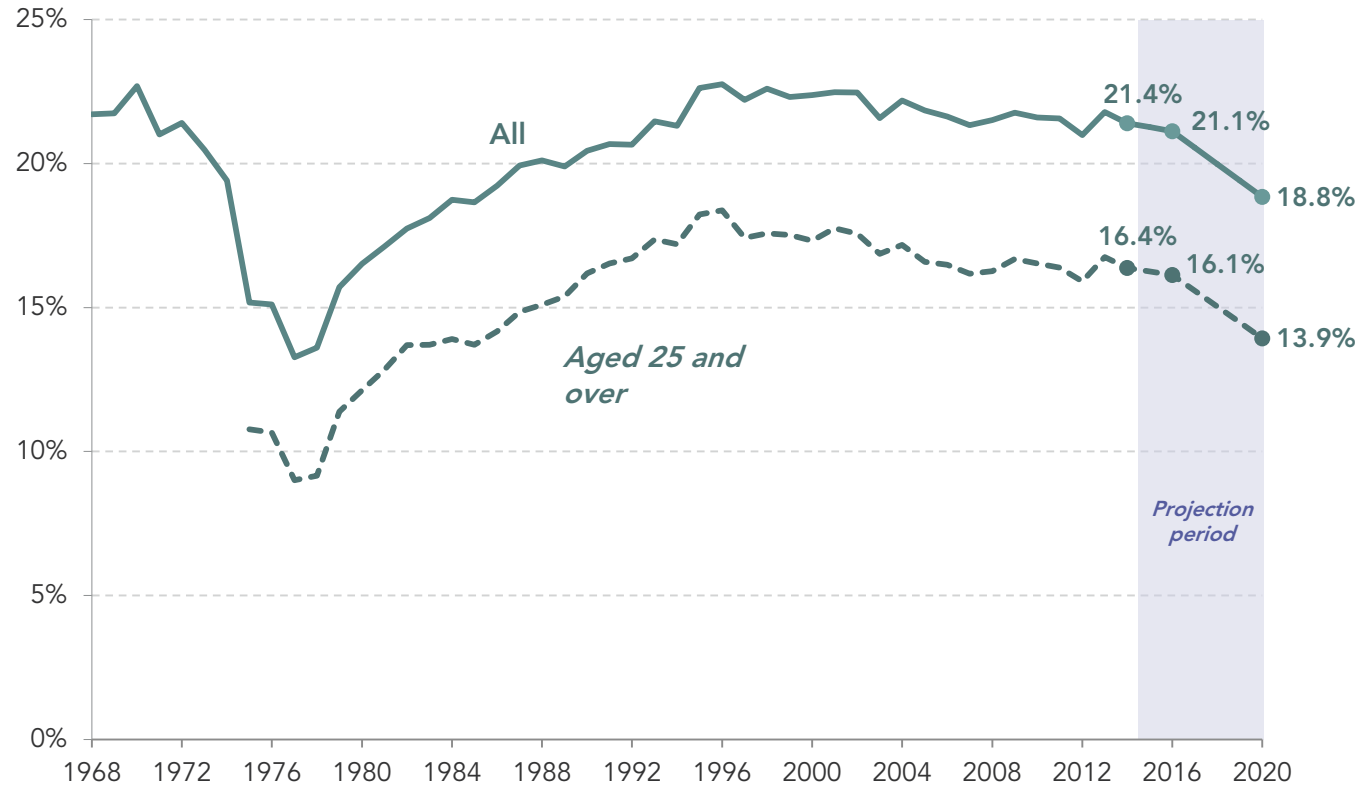
Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

What is clear from Figure 11 is that even with an overall bite of 65 per cent, the NLW pushes relatively few over the low pay threshold, implying a significant but relatively modest (if uncertain) impact on the headline low pay rate. This is confirmed in Figure 12, which shows low pay falling from 21.4 per cent in 2014 to 21.1 per cent in 2016 and 18.8 per cent by 2020. Modest though this might appear, this would be the lowest rate since 1985 and the biggest (four year) drop since the 1970s. It is a major change in the UK's labour market.

In absolute numbers, and accounting for employment growth, the number of low paid may grow from 5.5 million in 2014 to 5.6 million in 2016, but then fall to reach 5.1 million by 2020 – a low not seen since 1997.

Figure 12: The impact of the NLW on the proportion of employees in low pay, 1968-2020

Proportion of employees below 2/3 of all-employee median pay



Notes: GB. Hourly earnings excluding overtime. See Annex 1 for methodological details, including how different datasets are combined.

Sources: RF analysis of DWP, Family Expenditure Survey (1968-1981); ONS, New Earnings Survey Panel Data (1975-2013); ONS, Annual Survey of Hours and Earnings (1997-2014)

If we look at only those aged 25 or over (the dotted line in Figure 12), the proportional fall is slightly larger – from 16.4 per cent being low paid in 2014 to 13.9 per cent in 2020 – again its lowest since the mid-80s.

And improving the UK's international low pay standing…

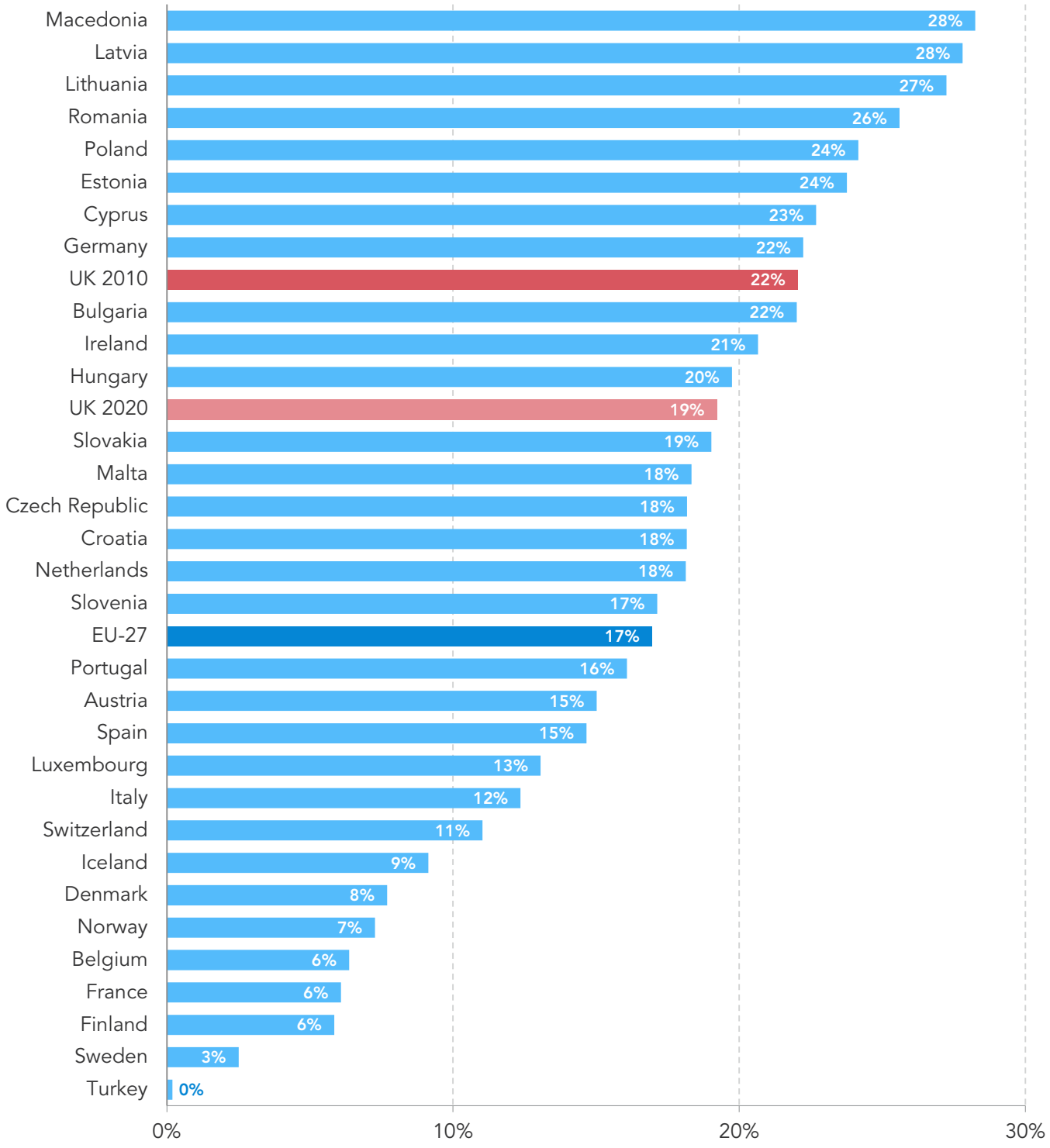
Although the NLW will reduce the prevalence of low pay to its lowest level in the UK since 1985, its impact on the UK's international ranking is less clear.

The OECD's statistics (shown in Figure 8 in Section 1) measure the proportion of full-time employees paid below two-thirds of the median weekly pay among full-time employees. Full-time workers are on average paid more per hour, and so two-thirds of the full-time median is sufficiently high that we estimate no impact from the NLW at that level. For this reason, we would not expect the UK's international low pay ranking to change when using full-time measures.

However, when using an all-employee hourly measure as we do, the NLW may have an impact. Figure 8 also provided a (not particularly timely) European comparison showing that the UK has a relatively high prevalence of low pay across employees. Figure 13 shows how this standing might change by 2020. Adjusting our estimate to be consistent with the EU data, our analysis suggests that the NLW might halve the gap between the UK's low pay prevalence and the EU-27 average. This is a significant step forward, despite the UK's ranking being little altered. However, the UK would remain the wrong side of the EU average.

Figure 13: European comparison of the proportion of employees in low pay, 2010 and projection of UK NLW impact in 2020

Selected European countries: proportion of employees earning below 2/3 of median hourly pay



Notes: European data excludes those in firms with fewer than 10 employees. The 2020 projection for the UK is based on ASHE 2014 data for GB, including all employees, adjusted to be consistent with the European definition.

Sources: RF analysis of Eurostat, *Structure of Earnings Survey* and ONS, *Annual Survey of Hours and Earnings*

Of course, the chart says nothing of overall relative living standards, which depend on employment, tax and benefit conditions too. The UK's figure will also be very sensitive to the degree of spillover effects from the NLW, and perhaps even the time of year of the survey.

Many other factors will also change these figures between 2010 and 2020. In isolation, however, the NLW will help the UK's standing in all-employee low pay comparisons, even if the effect is smaller than might be expected given the relatively high value of its new wage floor by international standards.

i Box 5: Regional low pay

Our low pay threshold is defined as two-thirds of the national (GB) hourly median. However, it is also possible to calculate separate low pay thresholds for each region, taking two-thirds of each regional median as the relevant benchmark instead. Given large variation in pay across the country, this approach gives very different results.

London has by far the lowest proportion of employees earning below two-thirds of the national median. By this usual national measure, London's rate of low pay is 12 per cent, compared to the nationwide figure of 21 per cent and a high of 26 per cent in the East Midlands. However, it might be argued that this fails to account for regional variations in the cost of living – particularly housing – and pay inequality *within* regions.

But if we calculate a separate low pay threshold for each region, London had by far the highest rate of regional low pay at 27 per cent in April 2014, followed by the South East (second lowest on the national measure) with 23 per cent. Yorkshire and the Humber has the lowest rate of regional low pay at 16 per cent.

The National Living Wage will have a dramatic effect on these statistics. Although the NLW is below two-thirds of the national median, and therefore does not eradicate low pay, it is above two-thirds of the regional median everywhere except London, the South East and Scotland. This means that for those aged 25 or over (and not on the apprentice minimum wage), 'regional low pay' will be eradicated in Wales, Northern Ireland,[1] and English regions outside the South East and London.

[1] The ASHE microdata we use to model the impact of the NLW covers GB only. However, median hourly pay in Northern Ireland in ASHE statistics published by the ONS suggests this would almost certainly be the case.

But having a much bigger impact in reducing the severity of low pay…

If the impact of the NLW on the UK's low pay prevalence looks somewhat underwhelming, it's worth noting that the focus on a particular relative low pay threshold understates the effect of the policy on Britain's low paid workers. As was made clear in Figure 11, even for those not pushed over the (ultimately arbitrary) threshold, the NLW will mean a pay boost. That is, it will reduce the severity of low pay for many of those not being lifted out of it entirely.

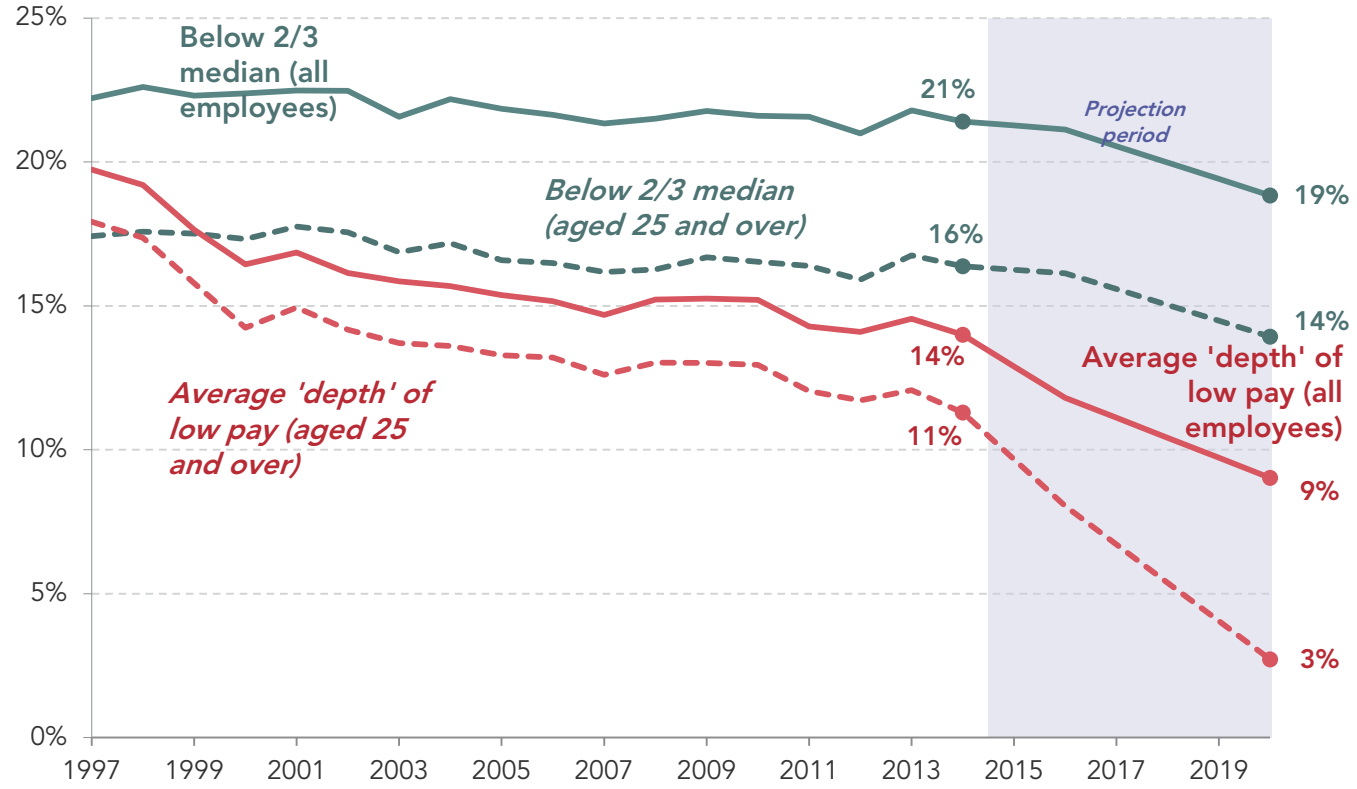
To give an indication of the changing 'depth' of low pay, Figure 14 presents the average proportional distance of members of the low paid group from the low pay threshold (where 100 per cent would mean an average wage among the low paid of zero; while just above 0 per cent would mean an average wage just below two-thirds of median pay).

It shows that the depth of low pay fell after 1997 – even while its prevalence remained broadly flat – with a particularly sharp reduction following the introduction of the NMW. More recently however, the depth has altered little, reflecting the generalised wage squeeze that has occurred since 2007. Over the post-1997 period as a whole, the average depth of low pay fell from 20 per cent to 14 per cent.

With the introduction of the NLW, the average depth is projected to fall further and more rapidly, reaching 9 per cent by 2020. If we look only at those aged 25 or over the effect is even more marked, with those still classed as 'low paid' in 2020 being just 3 per cent from the low pay threshold on average.

Figure 14: The impact of the NLW on low pay and its severity, 1997-2020

Proportion of employees below 2/3 of all-employee median pay, and average 'depth' of low pay



Notes: GB. Hourly earnings excluding overtime. 'Depth' is defined here as the proportional difference between the mean pay of the low paid and the (below 2/3 median) low pay threshold. See Annex 1 for methodological details.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

By combining the prevalence and depth figures, we can also estimate an overall magnitude of the low pay gap. In 2014, 21 per cent of employees were low paid, and they earned on average 14 per cent below the low pay threshold. Those figures roughly combine to give a pay gap of £7.9 billion. If the depth and prevalence of low pay had remained unchanged since 1997, the same figure would have been £12.1 billion. If the projected rates of 2020 were to apply, that figure would have been only £4.4 billion – almost halving the low pay gap from 2014. Note that these figures hold constant the 2014 employment and earnings picture, and therefore do not incorporate likely employment or above-inflation pay growth over the rest of the decade (which would inflate the 2020 low pay gap and make it less comparable to that for 2014).[22]

[22] It is for this reason (plus the fact that a small proportion of the 'cost' of the NLW by 2020 will be spent pushing people beyond the (below 2/3 median) low pay threshold via spillover effects) that the difference between our 2014 and 2020 low pay gap estimates (£3.5 million in 2014 prices) is smaller than the £4.5 billion (2016 prices) annual wage increase from the NLW by 2020 that we have estimated previously.

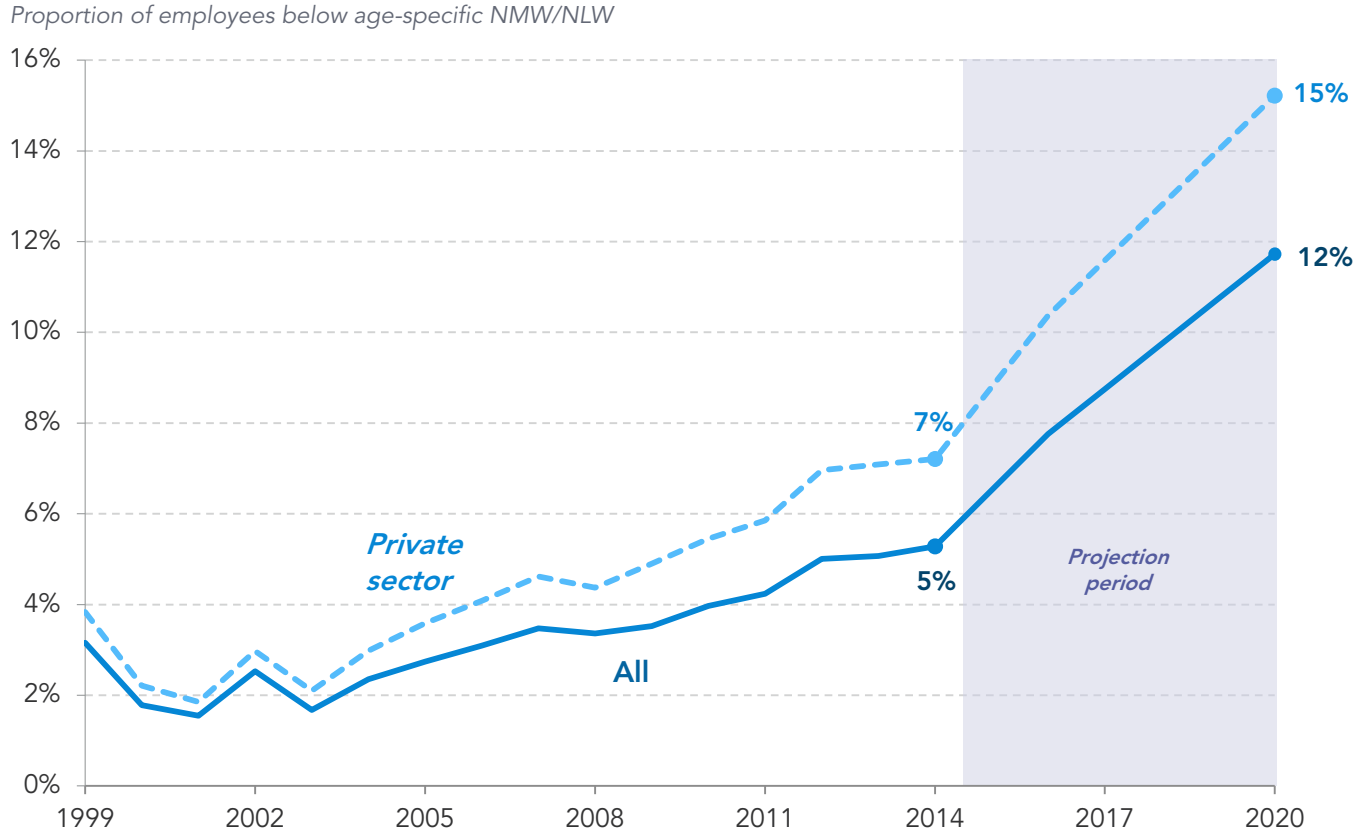
And leaving more people than ever on or around the legal wage floor…

Welcome though this progress is, it is not without problems. Alongside the costs faced by businesses, which we have discussed elsewhere,[23] the raising of the wage floor is set to produce a significant bunching of workers at the bottom of the wage distribution.

Figure 15 shows that, in the first five years of the NMW, around 2 per cent of employees were paid the relevant NMW for their age (or up to 1 per cent – originally around 4p – above). By 2014, that figure had grown to over 5 per cent, meaning that the pay of 1 in 20 employees was in effect determined by the Low Pay Commission. As the bite of wage floor increases with the NLW, this figure can be expected to grow.

Tweet this chart

Figure 15: The impact of the NLW on the proportion of employees earning the legal minimum, 1999-2020



Notes: GB. Hourly earnings excluding overtime. We include those up to 1 per cent above the age-specific NMW/NLW rates because of uncertainty in the hourly wage data and because many employees are paid a few pence above the rate itself in order that their employers not be considered 'minimum wage businesses'. Apprentices paid more than their legal minimum (£2.68 in April 2014) but less than the usual minimum for their age group are nonetheless counted as 'on' the NMW/NLW. See Annex 1 for methodological details.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

On its introduction in April 2016, 8 per cent of workers may be on the wage floor. And in 2020 and beyond, this figure is projected to be 12 per cent, as Figure 15 shows.[24] That is, the Low Pay

[23] C D'Arcy & A Corlett, *Taking up the floor: Exploring the impact of the National Living Wage on employers*, Resolution Foundation, September 2015

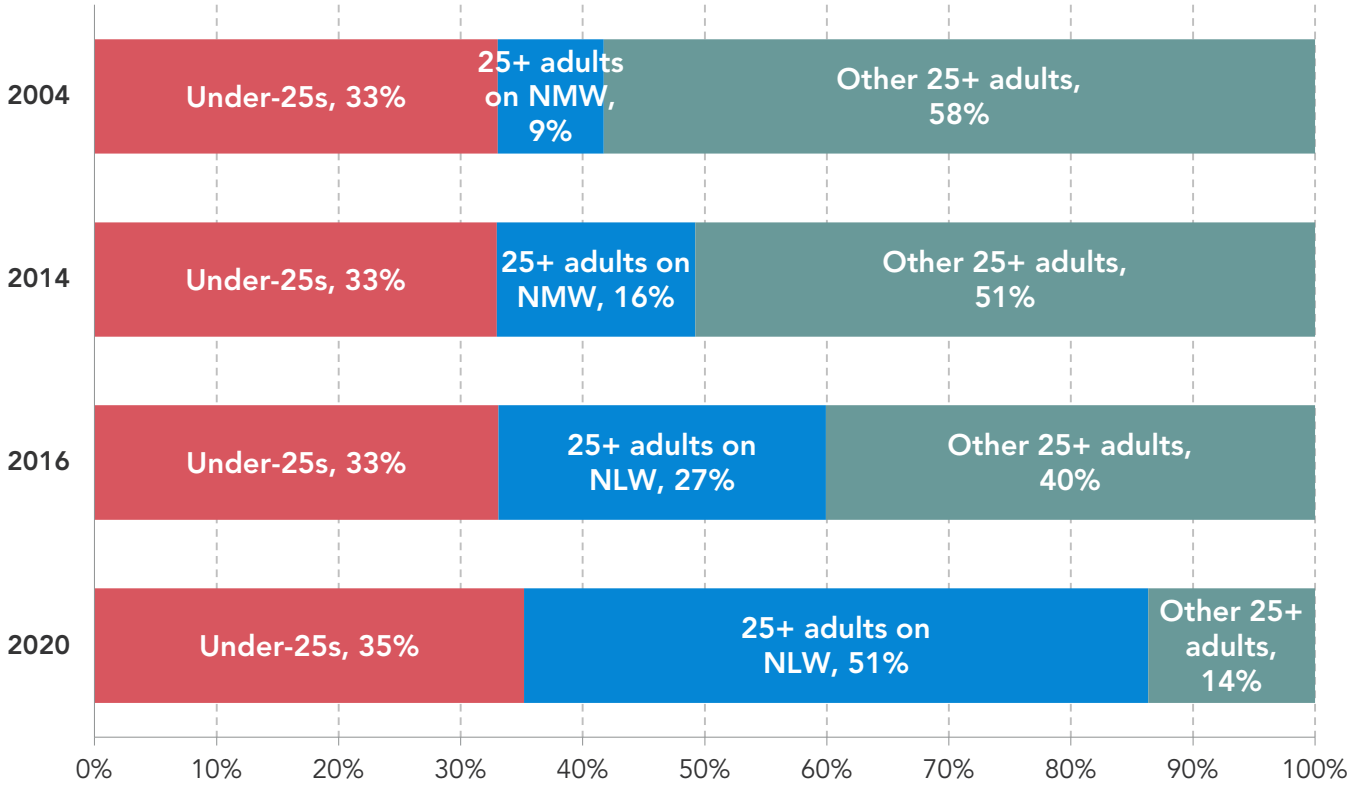
[24] Greater or smaller spillover effects than we have assumed would lead to this being lower or higher, and other trends and policies, not modelled here, will of course change this number.

Commission will be determining (or at least recommending) the pay for over 1 in 10 employees. For the private sector (also shown in Figure 15), and for women, that proportion grows to 15 per cent.[25] This is a huge change for our labour market and while it may not in itself be a problem, it does create potential issues around progression. Previous Resolution Foundation research has shown that employees are not sufficiently incentivised to seek promotion opportunities when there is only a marginal wage gain.[26] With the potential for pay ladders to become even more compressed at the bottom, there is a clear risk that extra responsibilities fail to equate to extra pay, and that opportunities for progression are harder to come by.

Increasingly, the population of 'low paid' employees will be synonymous with those on (or only just above) the National Living Wage, and those not entitled to it due to their age. As Figure 16 shows, by 2020, around one-third of the low paid will be those under 25, around half will be those aged 25 and over on the NLW or up to 1 per cent above, with only a small remainder – those earning slightly more but still below the low pay threshold.

Figure 16: The impact of the NLW on the composition of employees in low pay, 2004-2020

Composition of employees below 2/3 of all-employee median pay



Notes: GB. Hourly earnings excluding overtime. See Annex 1 for methodological details.

Sources: RF analysis of ONS, Annual Survey of Hours and Earnings

[25] These figures refer to April of each year, at which time the NLW has just been increased and the NMW is half-way through its implementation year. This difference explains a very small part of the impact of the NLW. However, these figures also assume that (uncertain) spillover effects from the NLW have been fully felt, when in practice ripple effects may take time to feed up and move people slightly further away from the NLW itself. Therefore, we may underestimate the share of employees on the wage floor in each year.

[26] C D'Arcy & A Hurrell, *Escape Plan: Understanding who progresses from low pay and who gets stuck*, Resolution Foundation, November 2014

To do more to help the low paid – and to further reduce the prevalence of low pay – the challenge will be to reduce the proportion of employees that are on the NLW, offering greater progression within and between jobs. The increased number of workers on the legal minimum, as well as the increased value of the minimum wage (for over-24s), also increases the challenge in enforcing that standard.

Yet 'low pay' is not the end of the story

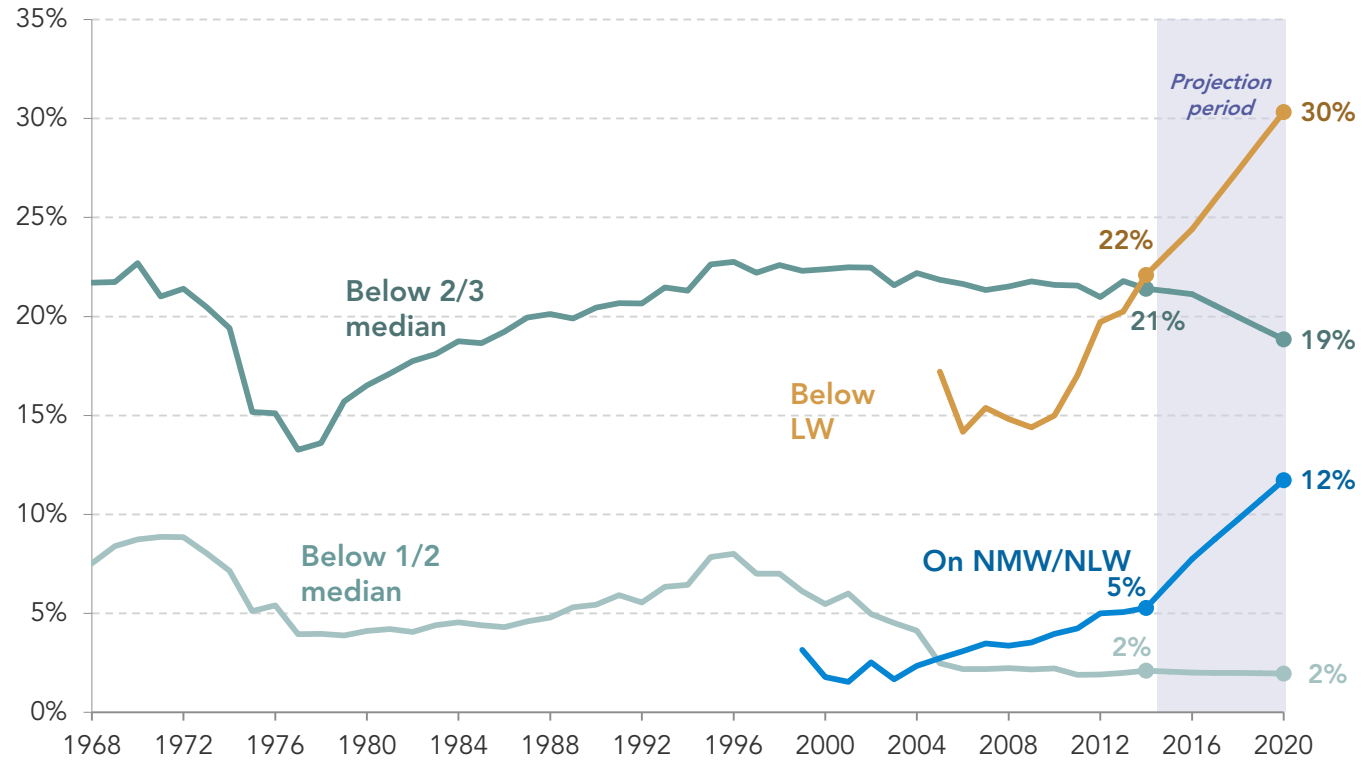
Two-thirds of median pay is a useful measure of pay inequality, facilitating comparison over time, between groups and between countries. However, it should be apparent that this is only one yardstick by which to judge a labour market and an economy more generally.

As we have shown, the NLW will change the *depth* of low pay more dramatically than its *prevalence*. But we must be careful not to set too much store by such measures. The two-thirds threshold is arbitrary and it would be a mistake to assume that those on, for example, 67 per cent of median pay are much less in need of a pay rise. Indeed, as Figure 17 (which also summarises the impact of the NLW on the other low pay measures discussed in this Section and report) shows, while the proportion of employees in low pay is likely to decline, the proportion paid below the independent Living Wage is likely to rise by 2016 and further by 2020. Even with the NLW, the proportion paid below the needs-based Living Wage might reach 30 per cent by 2020. However, we do not know exactly what the Living Wage (both in and out of London) will be in 2020 (even assuming its methodology

Tweet this chart

Figure 17: The impact of the NLW on the proportion of employees below selected low pay thresholds, 1968-2020

Proportion of employees



Notes: GB. Hourly earnings excluding overtime. See Annex 1 for methodological details, including how different datasets are combined.

Sources: RF analysis of DWP, *Family Expenditure Survey* (1968-1981); ONS, *New Earnings Survey Panel Data* (1975-2013); ONS, *Annual Survey of Hours and Earnings* (1997-2014)

remains unchanged) so these projections beyond 2016 should be treated with particular caution.[27]

As discussed, the self-employed may also face particular pressures. There is also the question of the quality and security of work,[28] as well as the potential for progression. It is possible that the NLW may mark a deterioration in both of these, particularly if employers look to cut costs in other areas in order to adapt. And all of this must be approached against a backdrop of aiming to raise employment levels in pursuit of full employment, in particular by engaging those groups such as the low-skilled and those with disabilities that tend to be furthest away from the labour market (and lower paid on average).

Above all, the best measure of living standards is household income. Previous Resolution Foundation research has shown, for example, that although the average single parent who gains from the NLW would see a £700 a year gross pay boost by 2020, they would on average only pocket £150 after increased taxes and benefits withdrawal are accounted for . Even among families without children, only 64 per cent of the gross wage gains would make their way through to net household income.[29]

In addition to the dampening effect of taxes and benefit withdrawal on the impact of the NLW, we must consider the welfare changes announced alongside it in the Summer Budget. The £4.5 billion wage boost from the NLW – around half of which will flow to the richer half of households – will clearly not compensate for the £13 billion of welfare cuts – much more focused on the bottom half.[30] The NLW will help to ensure that the proceeds of growth are shared with lower-earning employees, and link the wage floor in the long-term to median earnings growth. However, we will not necessarily see the same in terms of real household incomes, where reductions in welfare spending are likely to outweigh NLW effects and hold back net income growth for low and middle income families.

And, above all, sustained real pay and productivity growth for all is sorely needed after the crash and stagnation of recent years.

[27] Our projection for the proportion of employees paid below location-specific voluntary Living Wages is derived from the outside-London Living Wage methodology. In particular, on the basis of the large gap between the current 'reference' and 'applied' Living Wages, and projections for average earnings growth on which the 'cap' is based, we assume that uprating is constrained by the cap in each year between 2015 and 2020. We assume that the current differential between the London and outside-London Living Wages is maintained.

[28] P Gregg & L Gardiner, *A steady job? The UK's record on labour market security and stability since the millennium*, Resolution Foundation, July 2015

[29] C D'Arcy, A Corlett & L Gardiner, *Higher ground: Who gains from the National Living Wage?*, Resolution Foundation, September 2015

[30] C D'Arcy, A Corlett & L Gardiner, *Higher ground: Who gains from the National Living Wage?*, Resolution Foundation, September 2015

Section 3

Detailed low pay statistics

This section provides more detailed statistics on who is low paid and how that has changed over time.

Low pay in April 2014

Table 1 presents a summary snapshot of low pay in April 2014, setting out the total number of employees in low pay, extreme low pay and below the Living Wage. It also details the distribution of low pay, within and across different groups. In summary:

- Overall, **one-in-five employees (21 per cent, or around 5.5 million individuals) in Britain earned less than the low-pay threshold in 2014**.
- Similarly, **22 per cent (5.7 million employees) earned less than the voluntary Living Wage**.
- **One-in-twenty employees (5 per cent) in 2014 were paid the legal minimum for their age group**, or up to 1 per cent above that level.
- **Female employees are at particular risk of low pay, with 26 per cent earning below the main threshold in 2014**, compared with 17 per cent of male workers. Extreme low pay was relatively low in both instances (at 2 per cent), but female workers were slightly more likely to find themselves in this position. 6 per cent of women were paid the minimum wage, compared to 4 per cent of male employees.
- **Younger and older employees are significantly more likely to fall below low pay and Living Wage thresholds** than are those aged between 31 and 55. Four-in-five (78 per cent) employees aged 20 and under were low paid in April 2014, with one-in-three (35 per cent) being in extreme low pay. Low pay rates remain high among those aged 21-25, before falling to a low of 14 per cent among workers in their mid-to-late 30s.
- Low paid employees can be found in every region of Britain, although there is a **clear distinction between the South East – and more particularly London – and the rest of the country**. Just one-in-eight (12 per cent) workers earned less than two-thirds of national median hourly pay in April 2014 in London, compared with one-in-four in many other parts of Britain, including the East Midlands (26 per cent) and the West Midlands, Wales and Yorkshire and the Humber (all on 25 per cent). Similarly, the proportion in extreme low pay was significantly lower in London.
- However, this **distinction is less marked when we instead consider the Living Wage thresholds**. The London Living Wage rate in place in April 2014 (£8.80) was more than £1 higher than the figure used for the rest of the country (and higher than the low pay threshold of £7.67 used in this report). As such, while London recorded a low level of below-Living Wage pay (19 per cent), it was only 3 percentage points lower than the national average.
- **Part-time employees face a particular low pay risk, with two-in-five (42 per cent) being low paid in 2014**, compared with 13 per cent of those working full time. While only 29 per cent of employees are part time, they make up 56 per cent of the low paid population.

» **Nearly one-in-two male part-time employees (46 per cent) were low paid** in 2014, a greater proportion than among female part-time workers. But women working full-time are a third more likely to be low paid than their male counterparts.

» As might be expected, **the risk of low pay is closely associated with precarious forms of employment**. One-in-three (35 per cent) workers employed on a temporary or casual basis were low paid in April 2014, compared with one-in-five (20 per cent) permanent employees. Temporary workers (6 per cent) were also much more likely to be in extreme low pay than their permanent counterparts (2 per cent).

» Of course, **permanent jobs still make up a majority of all positions in Britain, meaning that temporary workers accounted for just 15 per cent of all low paid employees in 2014**, despite the high prevalence of low pay within this group.

» While low paid work exists across all occupational groups, there is a **clear bias towards lower-skilled occupations**. Three-in-five *elementary* (cleaners, security guards, catering assistants, leisure workers and bar staff for example) and *sales and customer service* (retail assistants, cashiers, telephone salespersons and customer services for example) workers were low paid in 2014, as were close to two-in-five workers in *personal services* (covering social care and childcare for example), compared with just 5 per cent of *managers and senior officials* and 1 per cent of those in *professional* occupations.

» There are **wide variations in the prevalence of low pay across industrial sectors, ranging from more than two-in-three (68 per cent) employees in the *hotels and restaurants* sector to just 2 per cent in the *public administration and defence* sector**. In addition to *hotels and restaurants*, five other classifications reported low pay prevalence above the national average of one-in-five: *wholesale and retail* (39 per cent), *administrative and support service activities* (37 per cent), *agriculture, forestry and fishing* (36 per cent), *arts, entertainment and recreation* (36 per cent) and *other service activities* (30 per cent).

» As with the national picture, there were **relatively few cases of extreme low pay in most sectors**, with the exceptions of *hotels and restaurants* (12 per cent), *other service activities* (6 per cent), *arts, entertainment and recreation* (5 per cent), *agriculture, forestry and fishing* (4 per cent) and *wholesale and retail* (3 per cent). We might speculate that such industries are likely to employ relatively high numbers of younger workers who are not subject to the adult NMW rate.

» Taking account of the relative size of each sector, ***wholesale and retail* made up the largest share of low paid workers (27 per cent) in 2014**, followed by *hotels and restaurants* (17 per cent), *health and social work* (12 per cent) and *administrative and support service activities* (11 per cent). The relatively large sectors of *education* (9 per cent) and *manufacturing* (6 per cent) also accounted for significant shares of the total, despite having below-average prevalence of low pay.

» **The proportion of employees paid the minimum wage in 2014 was highest in the *hotels and restaurants* sector, with 1 in 4 (24 per cent)**, followed by *administrative and support service activities* (13 per cent).

» **Low pay prevalence was highest in 2014 within the private sector**, with sole proprietors (49 per cent), partnerships (37 per cent) and private companies (26 per cent) recording much higher rates of low pay than local authorities (12 per cent), central government (4 per cent) and public corporations (2 per cent). A similar distribution holds for employees in extreme low pay.

» Looking at the size of employers, **the smallest firms – those with fewer than 10 employees – had the highest prevalence of low pay (35 per cent), followed by those with 5,000 employees or more (29 per cent)**. The lowest rates were among large (250-4,999) employers (20 per cent) and medium (50-249) employers (23 per cent). Just over half of the low paid (53 per cent) worked for employers with 250 or staff or more.

Table 1: Low pay in April 2014

	Below 2/3 median hourly pay			Below 1/2 median hourly pay			Near or below NMW/NLW			Below Living Wage		
	Number (000s)	% in group below	% of all below threshold	Number (000s)	% in group below	% of all below threshold	Number (000s)	% in group below	% of all below threshold	Number (000s)	% in group below	% of all below threshold
All employees	5,520	21%	100%	545	2%	100%	1,360	5%	100%	5,695	22%	100%
Sex												
Women	3,340	26%	61%	295	2%	55%	795	6%	58%	3,445	27%	60%
Men	2,175	17%	39%	245	2%	45%	565	4%	42%	2,255	17%	40%
total	5,520	21%	100%	545	2%	100%	1,360	5%	100%	5,695	22%	100%
Age group												
16-20	1,025	78%	19%	455	35%	84%	210	16%	16%	1,040	79%	18%
21-24	790	42%	14%	20	1%	4%	250	13%	19%	815	43%	14%
25-30	735	21%	13%	15	0%	3%	195	5%	14%	775	22%	14%
31-35	450	15%	8%	10	0%	1%	115	4%	9%	475	16%	8%
36-40	390	14%	7%	5	0%	1%	100	4%	8%	410	15%	7%
41-45	470	14%	8%	10	0%	2%	115	3%	8%	485	15%	9%
46-50	505	15%	9%	10	0%	2%	115	3%	8%	520	15%	9%
51-55	445	15%	8%	10	0%	1%	95	3%	7%	460	16%	8%
56-60	345	17%	6%	5	0%	1%	75	4%	6%	355	17%	6%
61-65	205	19%	4%	5	0%	1%	50	4%	3%	210	20%	4%
66+	145	30%	3%	5	1%	0%	35	7%	3%	150	31%	3%
Region												
East Midlands	470	26%	11%	50	3%	12%	125	7%	11%	465	25%	10%
West Midlands	580	25%	13%	55	2%	13%	150	7%	14%	570	25%	12%
Wales	300	25%	7%	30	2%	6%	75	6%	7%	295	25%	6%
Yorkshire & the Humber	530	25%	12%	50	2%	11%	135	6%	12%	520	25%	11%
North West	695	25%	16%	80	3%	19%	190	7%	18%	685	24%	15%
North East	250	24%	6%	30	3%	6%	75	7%	7%	245	24%	5%
South West	535	24%	12%	60	3%	14%	115	5%	10%	525	23%	11%
East	555	23%	12%	55	2%	13%	125	5%	11%	550	23%	12%
Scotland	460	20%	10%	45	2%	10%	110	5%	10%	445	19%	10%
South East	670	19%	15%	60	2%	14%	135	4%	13%	655	18%	14%
London	480	12%	11%	35	1%	8%	130	3%	12%	745	19%	16%
Occupation												
Elementary	1,860	60%	34%	205	7%	38%	585	19%	43%	1,895	61%	33%
Sales & customer service	1,160	56%	21%	100	5%	19%	250	12%	18%	1,200	58%	21%
Personal services	935	37%	17%	70	3%	13%	175	7%	13%	975	39%	17%
Process & machinery ops.	365	25%	7%	10	1%	2%	90	6%	6%	370	25%	6%
Skilled trades	380	19%	7%	60	3%	11%	90	5%	7%	390	19%	7%
Admin & secretarial	475	15%	9%	45	1%	8%	90	3%	7%	490	16%	9%
Managers & senior officials	125	5%	2%	10	0%	2%	30	1%	2%	140	6%	2%
Associate prof. & technical	155	4%	3%	30	1%	6%	35	1%	3%	165	4%	3%
Professional	60	1%	1%	10	0%	1%	20	0%	1%	65	1%	1%
Hours worked												
Part time	3,075	42%	56%	310	4%	57%	795	11%	58%	3,155	43%	55%
Full time	2,445	13%	44%	230	1%	43%	565	3%	42%	2,540	14%	45%
Hours worked and sex												
Part-time women	2,200	40%	40%	200	4%	37%	545	10%	40%	2,255	41%	40%
Part-time men	875	46%	16%	110	6%	20%	250	13%	18%	900	48%	16%
Full-time women	1,140	16%	21%	95	1%	18%	250	3%	18%	1,190	16%	21%
Full-time men	1,300	12%	24%	135	1%	25%	315	3%	23%	1,350	12%	24%

	Below 2/3 median hourly pay			Below 1/2 median hourly pay			Near or below NMW/NLW			Below Living Wage		
	Number (000s)	% in group below	% of all below threshold	Number (000s)	% in group below	% of all below threshold	Number (000s)	% in group below	% of all below threshold	Number (000s)	% in group below	% of all below threshold
Contract type												
Temporary/casual	815	35%	15%	130	6%	24%	265	11%	19%	840	36%	15%
Permanent	4,705	20%	85%	410	2%	76%	1,095	5%	81%	4,860	21%	85%
Firm structure												
Sole proprietors	235	49%	4%	30	6%	5%	80	17%	6%	240	50%	4%
Partnerships	230	37%	4%	35	6%	7%	70	11%	5%	230	37%	4%
Private companies	4,245	26%	77%	420	3%	79%	1,105	7%	82%	4,385	27%	77%
Non-profit bodies and mutuals	340	16%	6%	30	1%	5%	60	3%	4%	350	16%	6%
Local authorities	345	12%	6%	15	1%	3%	35	1%	2%	365	12%	6%
Central government	120	4%	2%	:	:	:	:	:	:	120	4%	2%
Pub. corps & nationalised ind's	5	2%	0%	:	:	:	:	:	:	5	2%	0%
Broad sector												
Private sector	4,705	27%	85%	485	3%	89%	1,250	7%	92%	4,855	28%	85%
Third sector	340	16%	6%	30	1%	5%	60	3%	4%	350	16%	6%
Public sector	465	8%	8%	:	:	:	:	:	:	485	8%	8%
Firm size												
XS (0-9 employees)	665	35%	12%	90	5%	2%	235	12%	5%	680	36%	14%
S (10-49 employees)	950	28%	17%	135	4%	3%	270	8%	5%	970	28%	19%
M (50-249 employees)	760	23%	14%	70	2%	1%	200	6%	4%	780	24%	15%
L (250-4,999 employees)	1,250	20%	23%	120	2%	2%	340	6%	7%	1,290	21%	26%
XL (5,000+ employees)	1,415	29%	26%	100	2%	2%	265	6%	5%	1,485	31%	29%
unclassified	470	8%	9%	30	0%	5%	50	1%	4%	490	8%	9%
Industry	0	0%	0%	0	0%	0%	0	0%	0%	0	0%	0%
Hotels & restaurants	915	68%	17%	160	12%	29%	325	24%	24%	945	70%	17%
Wholesale & retail	1,490	39%	27%	125	3%	23%	300	8%	22%	1,540	41%	27%
Admin & support services	630	37%	11%	25	1%	4%	225	13%	16%	650	39%	11%
Agriculture	50	36%	1%	5	4%	1%	10	9%	1%	50	36%	1%
Arts & recreation	185	36%	3%	30	5%	5%	45	9%	3%	205	39%	4%
Other service activities	135	30%	2%	25	6%	5%	55	12%	4%	140	31%	2%
Households as employers	15	21%	0%	:	:	:	:	:	:	15	24%	0%
Health & social work	685	18%	12%	40	1%	7%	130	3%	10%	705	18%	12%
Manufacturing	340	14%	6%	25	1%	5%	70	3%	5%	340	14%	6%
Real estate	45	13%	1%	5	2%	1%	10	3%	1%	45	14%	1%
Education	515	13%	9%	35	1%	7%	65	2%	5%	535	14%	9%
Construction	100	11%	2%	25	3%	5%	35	4%	3%	105	11%	2%
Water supply & waste	15	11%	0%	:	:	:	5	2%	0%	20	12%	0%
Prof. & technical	155	10%	3%	15	1%	3%	40	3%	3%	165	10%	3%
Transport & storage	100	10%	2%	5	1%	1%	20	2%	1%	105	10%	2%
Info. & comms.	65	7%	1%	10	1%	2%	15	2%	1%	70	7%	1%
Finance	30	3%	1%	:	:	:	5	0%	0%	30	3%	1%
Public admin	30	2%	1%	5	0%	1%	5	0%	0%	30	2%	1%
Unclassified	10	3%	0%	5	:	1%	5	:	0%	10	4%	0%

Notes: GB. Hourly earnings excluding overtime. See Annex 1 for methodological details.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

The evolution of low pay

Having looked at the picture of low pay in Britain in April 2014, we now turn to the evolution of this landscape over the last four decades. Figure 18 to Figure 30 below set out trends in low pay prevalence *within*, and the distribution of low pay *across*, different employee and job characteristics, including projections to 2020. Box 6 comments on the likely trends up to 2020 accounting for the impact of the NLW.

But to summarise the recorded trends up to 2014:

- The **proportion of low paid women fell rapidly in the early-1970s** (from a peak of around 45 per cent to a low of just 25 per cent in just over a decade). And, while the figure subsequently increased, reaching around one-third in the early-1980s, the **trend over the last three decades has been one of slight but steady improvement**. (Figure 18)
- In contrast, the **proportion of low paid male employees climbed relatively rapidly between the mid-1970s and late-1990s**, from 6 per cent to 15 per cent, though remaining well below the levels recorded among women. (Figure 18)
- While the male proportion of low paid work has gradually risen over the past three decades (from just under one-quarter (24 per cent) of all low paid employees to nearly two-fifths (39 per cent)), **women continue to comprise the bulk of all low paid workers**. (Figure 19)
- For all age groups, the proportion in low pay increased steadily over the course of the 1980s and early-1990s. However, while the overall trend subsequently remained relatively stable, **the proportion of younger workers in low pay continued to *increase*, while the proportion of older workers in this position *decreased***. (Figure 20)
- Despite these trends, the **proportion of the low paid accounted for by younger workers has grown only slightly over time**. And older workers have accounted for a growing share too – reflecting the ageing of the workforce.
- The trajectory of low pay follows the national pattern across most regions. The **one distinction relates to trends in the pre-1995 period in London and the South East. Rather than increase, as was the case across the rest of the country, low pay was flat or falling slightly in these two regions throughout the 1980s**, such that the proportion in low pay went from being higher in the South East (16 per cent) than in Wales (14 per cent) in 1975, to being some 7 percentage points lower by 2014. (Figure 21)
- The **prevalence of low pay among both *elementary* and *sales and customer service* employees increased over the period from 1997 to 2009** – from an already high base – but has since plateaued or fallen slightly. The **proportion of *personal services* employees who are low paid has fallen, as has the share of low paid in *professional* occupations**, yet **since the financial crisis the rate of low pay among *managers and senior officials* has increased markedly**, rising from 4 per cent to over 5 per cent. (Figure 22)
- **As the number of people working part time has increased over the last three decades, so the proportion who are low paid has declined slightly**. The impact of the NMW is clear, with levels of extreme low pay among part-time employees falling particularly sharply, from 19 per cent in 1996 to just 4 per cent in 2014. In contrast, **the proportion of full-time employees falling below the main low pay threshold is little changed from its mid-1980s level**. (Figure 23)
- **However, the growth of part-time work means that the overall share of low pay accounted for by such employees has increased over recent decades**. In 1975, just 30 per cent of the low paid were employed in part-time work; trends during the late-1970s and again in the early-1990s means that this share has stood at more than half since 1997. (Figure 24)
- The **proportion of low paid workers who are employed on a temporary or casual basis increased from 8 per cent in 2000 to 15 per cent in 2014**. This trend is **even more**

marked in relation to extreme low pay, with the proportion accounted for by temporary workers increasing from 9 per cent to 24 per cent over the same period. (Figure 26)

- **Rates of low pay rose slightly from 1997 in the two industrial sectors with the highest prevalence of employees below the low pay threshold in 2014, but fell across other sectors**. The proportion of low paid employees in the *hotels and restaurants* sector climbed from a low of 63 per cent in 2003 to a peak of 71 per cent in 2009. In contrast, the proportion of low paid workers in the *public administration* sector declined from 8 per cent in 1997 to just 2 per cent in 2014. (Figure 27)
- The incidence of low pay within small and medium firms fell between 1997 and 2007, while growing for larger firms, and the reverse has been true since 2007. (Figure 29)
- The overall **incidence of low paid work in the private sector has grown marginally since 1997** (from 26 per cent to 27 per cent of all employees), while it has **fallen in both the third sector** (from 20 per cent in 1997 to 16 per cent in 2014) **and, more sharply, the public sector** (from 14 per cent to just 8 per cent). (Figure 30)

i Box 6: The outlook for 2020

Our estimates for 2020 model the impact of the NLW but not any other changes in the jobs market or pay distribution. Particularly when looking only at subgroups, they should not be considered projections. In many cases, other factors and long-term trends may reduce or even cancel out the impact of the NLW, or act in the same direction.

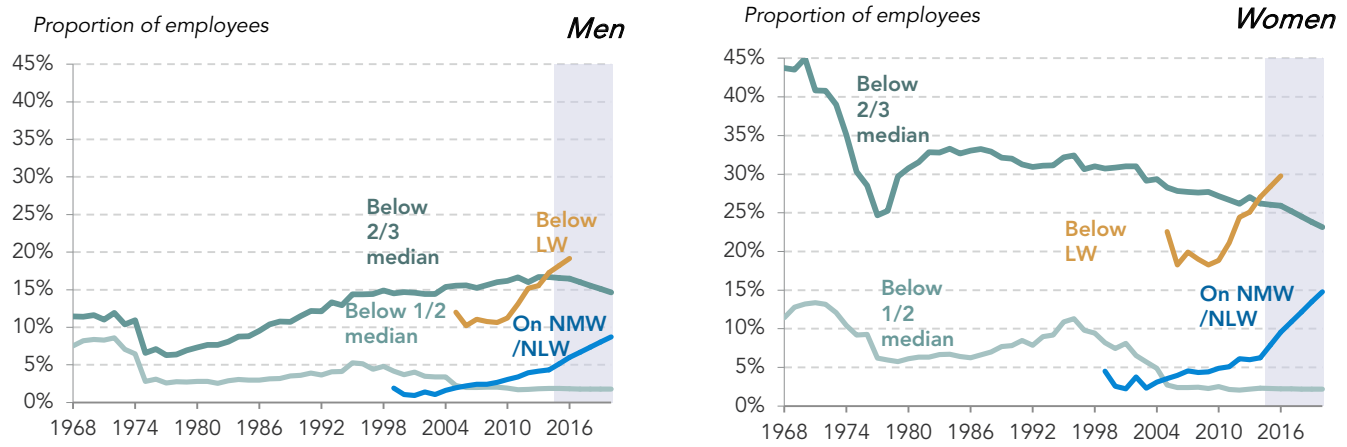
For example, the NLW is expected to reduce the share of women that are low paid to its lowest level on record by 2020, but we do not know if separate factors – which have supported the 30-year trend of a falling likelihood of low pay for women – will also continue.

Nonetheless, the NLW represents a strong force to reduce the prevalence of low pay across all groups, including both those where low pay has been rising and those where it has been falling or flat.

In many groups, large proportions of workers are expected to be paid only the legal minimum (or up to 1 per cent above) by 2020 – including 40 per cent of hospitality workers – unless other forces counteract the potential impact of the NLW on wage distributions.

Projections for the future worth of the voluntary Living Wage, and therefore the proportion paid less than this, are particularly uncertain and so have not been shown for subgroups beyond 2016.

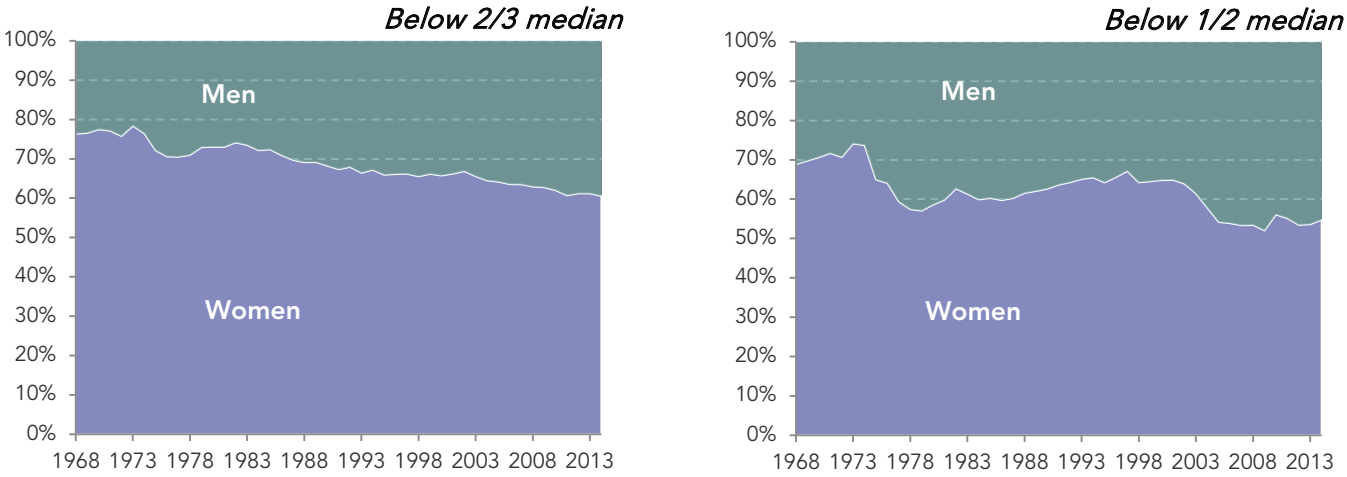
Figure 18: Proportion of employees below selected low pay thresholds by sex, 1968-2020



Notes: GB. Hourly earnings excluding overtime. Shaded area shows projection period. See Annex 1 for methodological details, including how different datasets are combined.

Sources: RF analysis of DWP, *Family Expenditure Survey* (1968-1981); ONS, *New Earnings Survey Panel Data* (1975-2013); ONS, *Annual Survey of Hours and Earnings* (1997-2014)

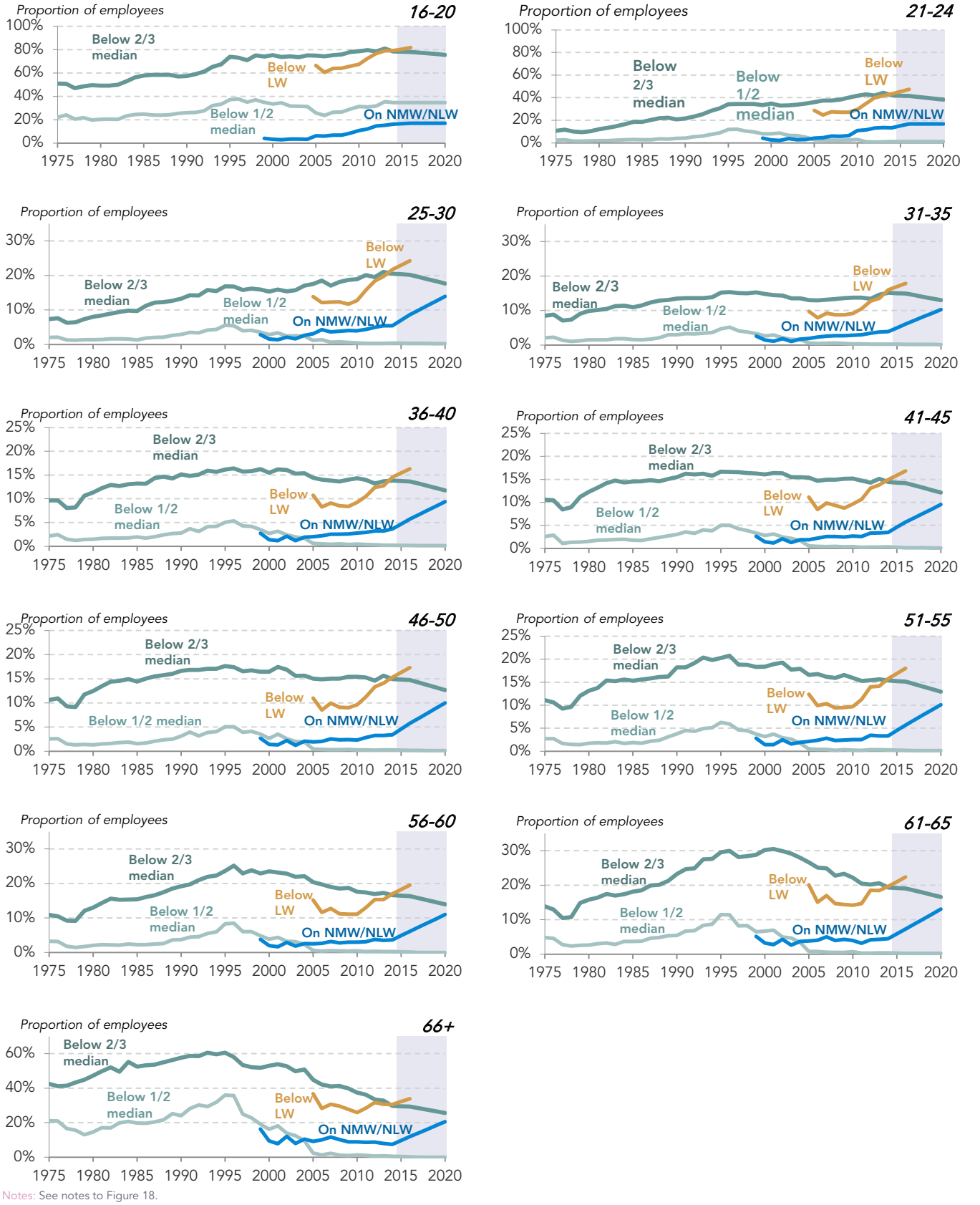
Figure 19: Distribution of employee low pay across sex, 1968-2014



Notes: GB. Hourly earnings excluding overtime. See Annex 1 for methodological details, including how different datasets are combined.

Sources: RF analysis of DWP, *Family Expenditure Survey* (1968-1981); ONS, *New Earnings Survey Panel Data* (1975-2013); ONS, *Annual Survey of Hours and Earnings* (1997-2014)

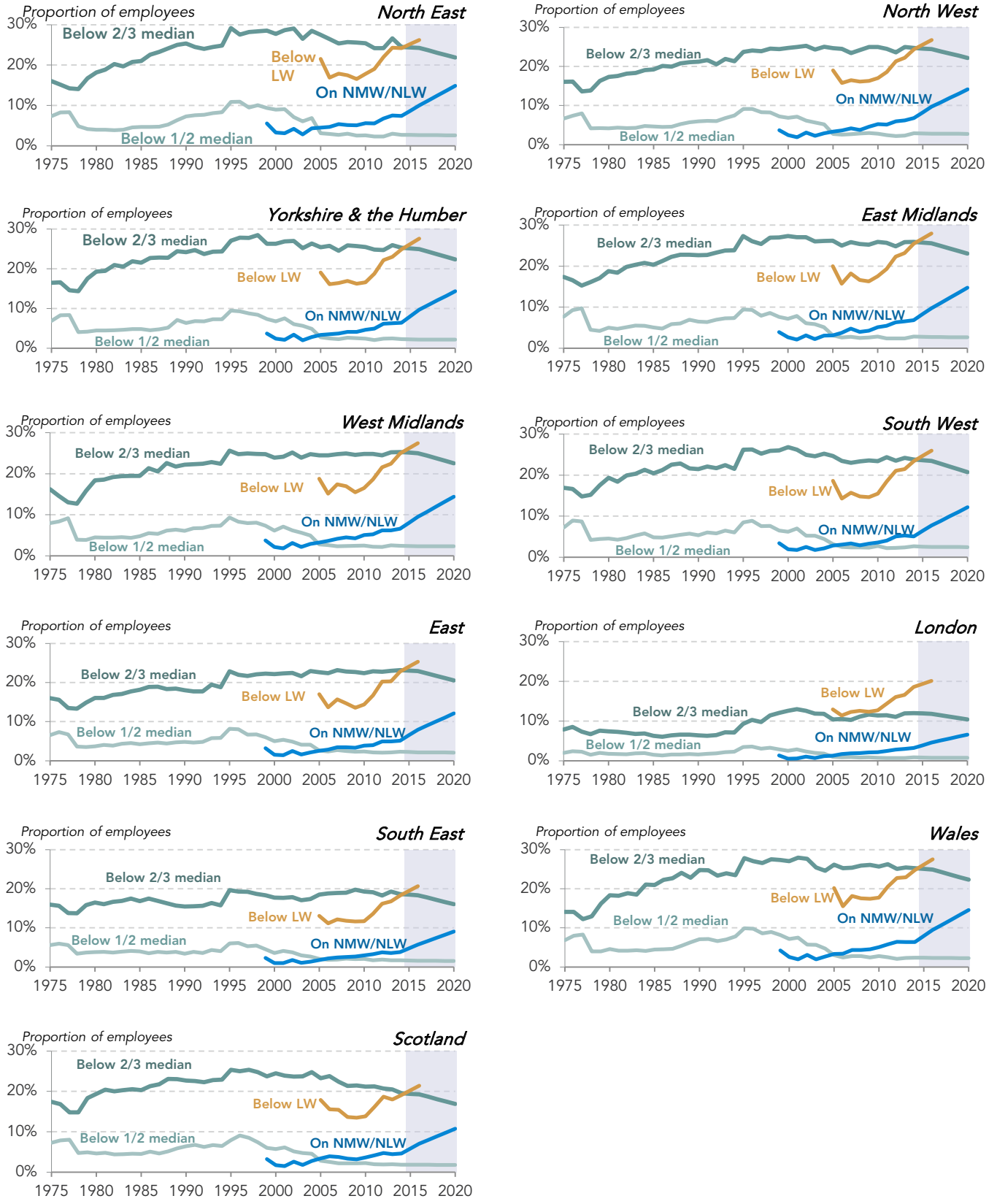
Figure 20: Proportion of employees below selected low pay thresholds by age



Notes: See notes to Figure 18.

Sources: RF analysis of ONS, *New Earnings Survey Panel Data* (1975-2013); ONS, *Annual Survey of Hours and Earnings* (1997-2014)

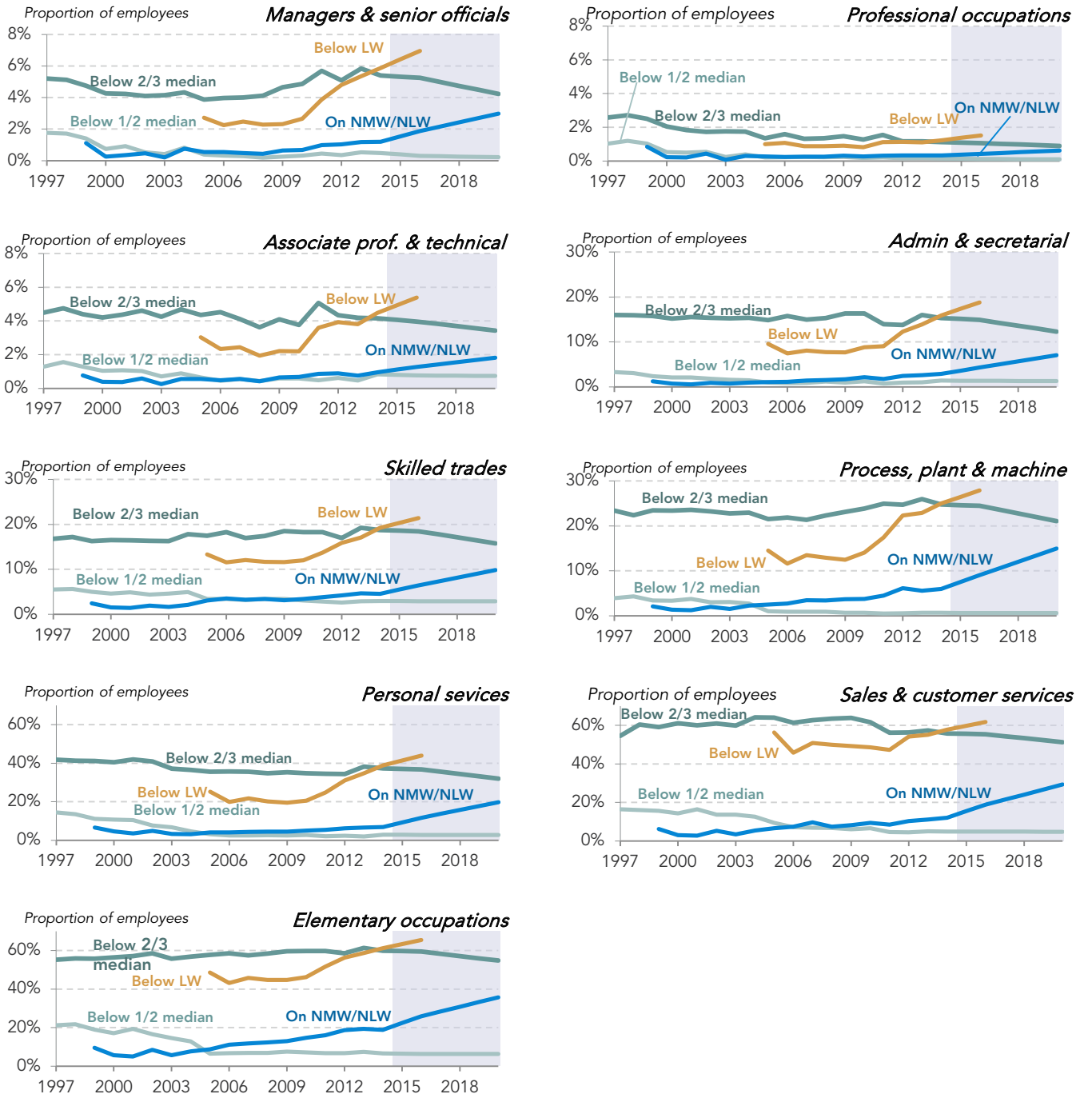
Figure 21: Proportion of employees below selected low pay thresholds by region, 1975-2020



Notes: See notes to Figure 18.

Sources: RF analysis of ONS, *New Earnings Survey Panel Data* (1975-2013); ONS, *Annual Survey of Hours and Earnings (1997-2014)*

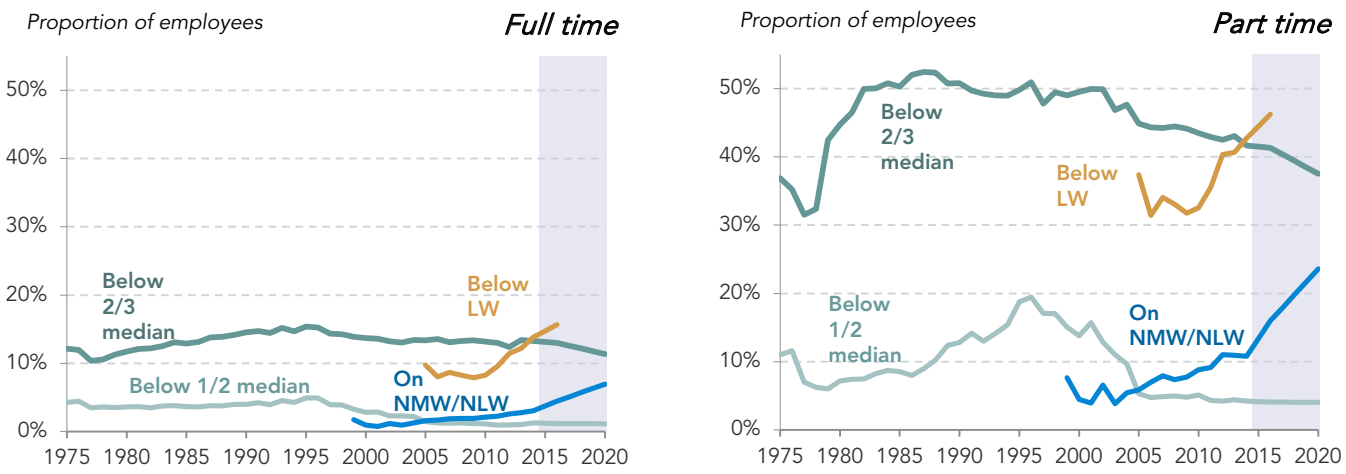
Figure 22: Proportion of employees below selected low pay thresholds by occupation, 1997-2020



Notes: GB. Hourly earnings excluding overtime. Shaded area shows projection period. See Annex 1 for methodological details.

Sources: RF analysis of ONS, Annual Survey of Hours and Earnings

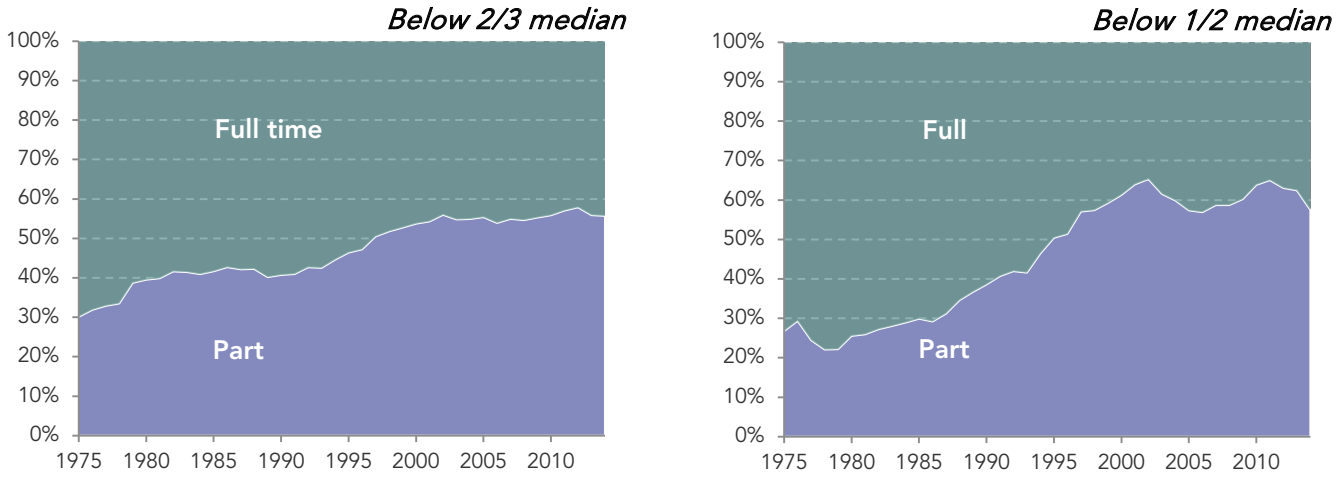
Figure 23: Proportion of employees below selected low pay thresholds by hours worked, 1975-2020



Notes: See notes to Figure 18.

Sources: RF analysis of ONS, *New Earnings Survey Panel Data* (1975-2013); ONS, *Annual Survey of Hours and Earnings* (1997-2014)

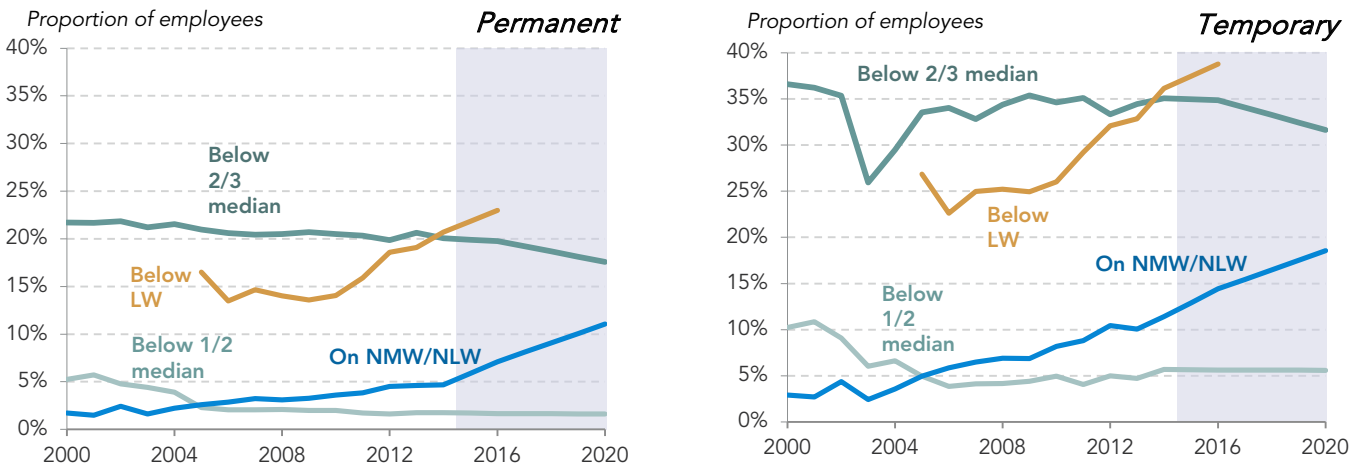
Figure 24: Distribution of employee low pay across hours worked, 1975-2014



Notes: See notes to Figure 19.

Sources: RF analysis of ONS, *New Earnings Survey Panel Data* (1975-2013); ONS, *Annual Survey of Hours and Earnings* (1997-2014)

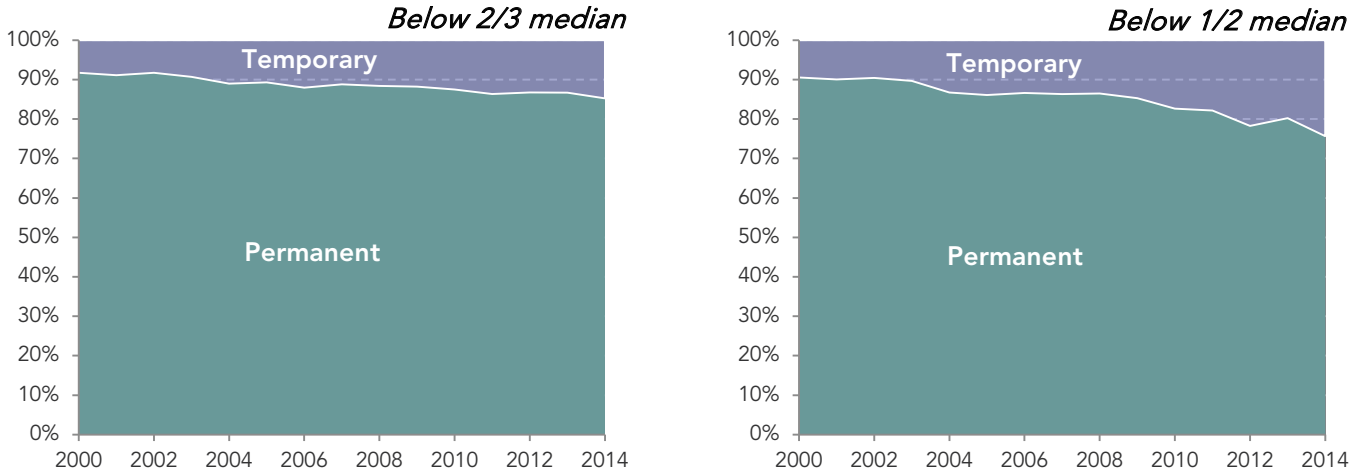
Figure 25: Proportion of employees below selected low pay thresholds by work status, 2000-2020



Notes: See notes to Figure 22.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

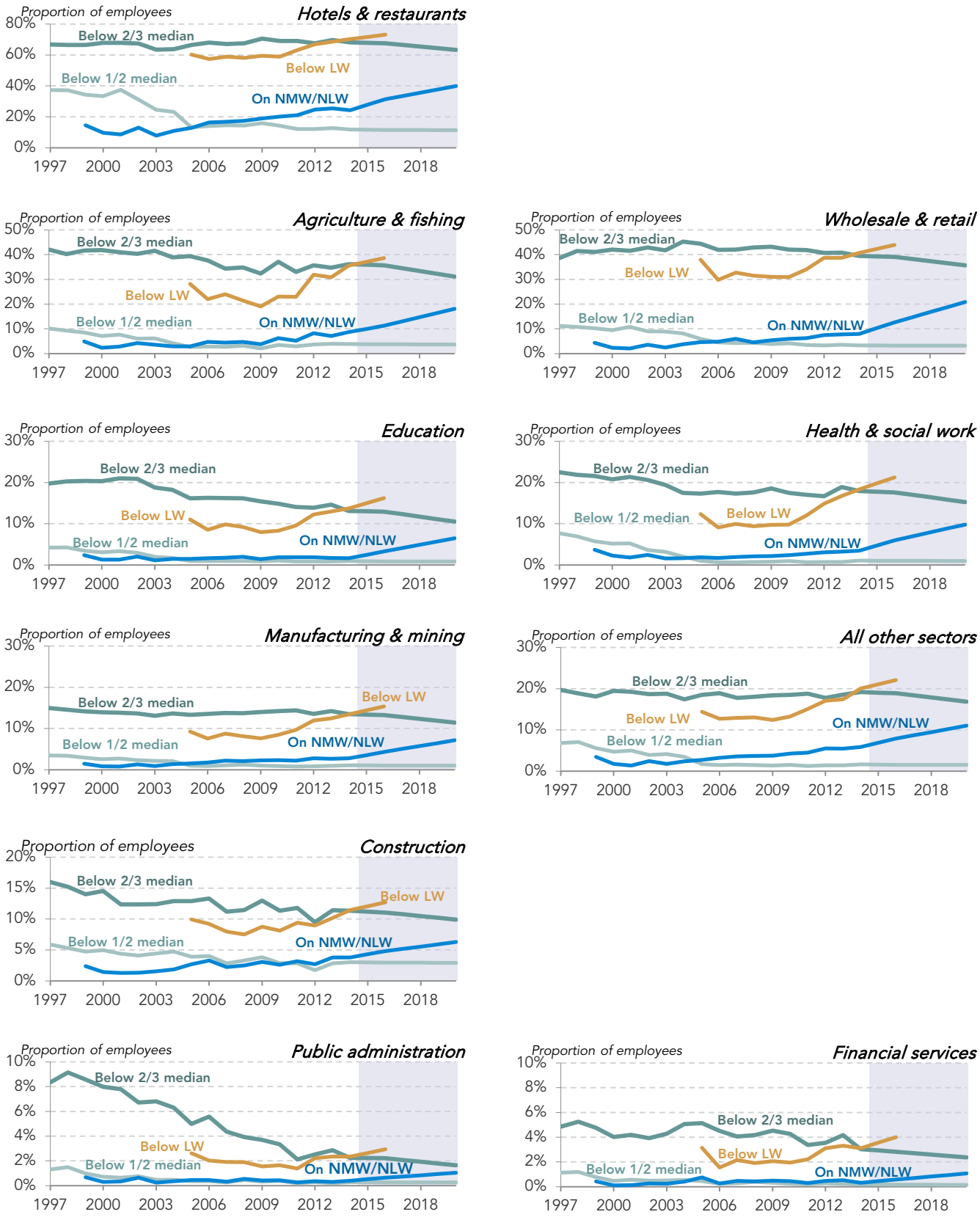
Figure 26: Distribution of employee low pay across work status, 2000-2014



Notes: GB. Hourly earnings excluding overtime. See Annex 1 for methodological details.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

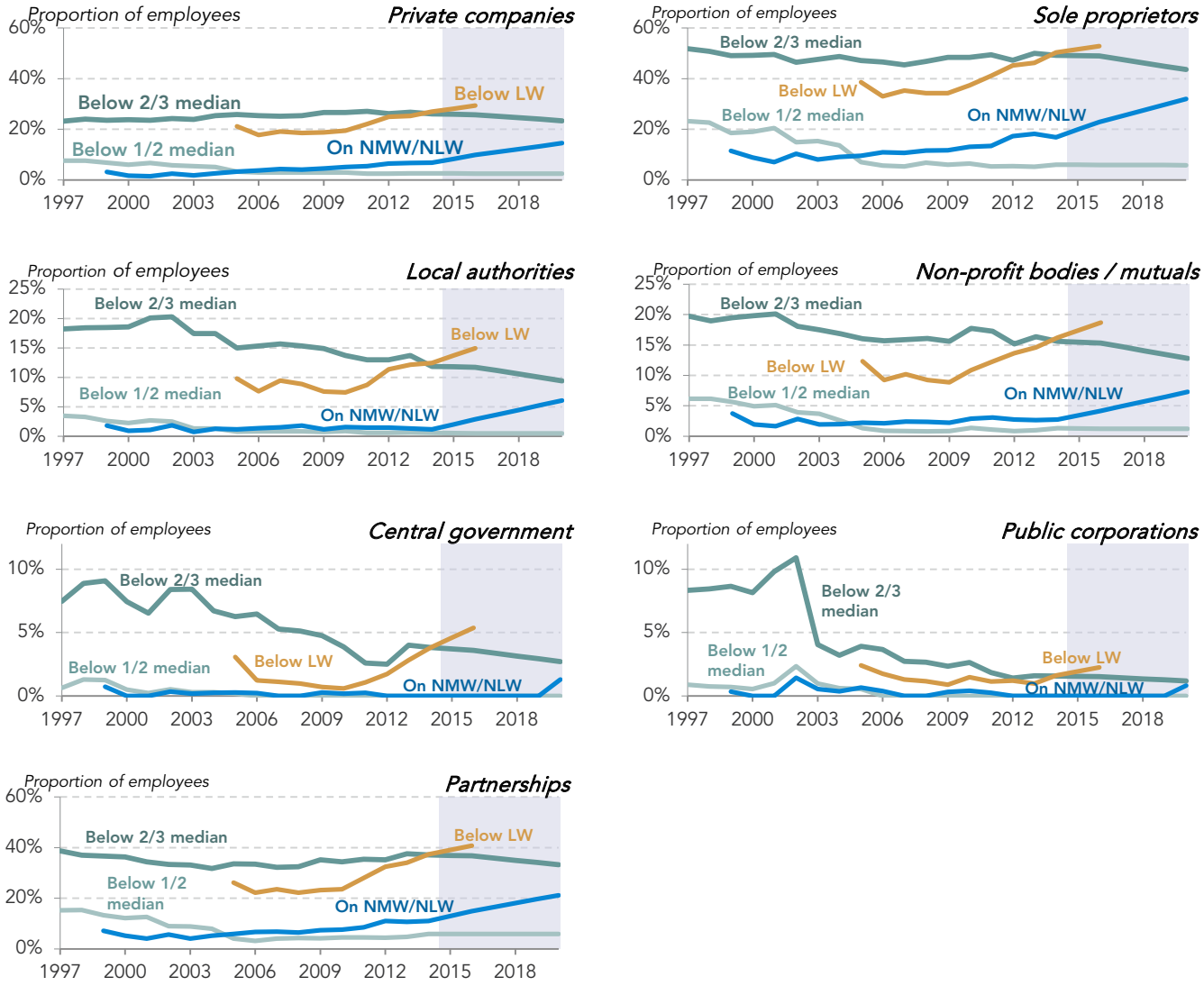
Figure 27: Proportion of employees below selected low pay thresholds by selected industrial sectors, 1997-2020



Notes: See notes to Figure 22.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

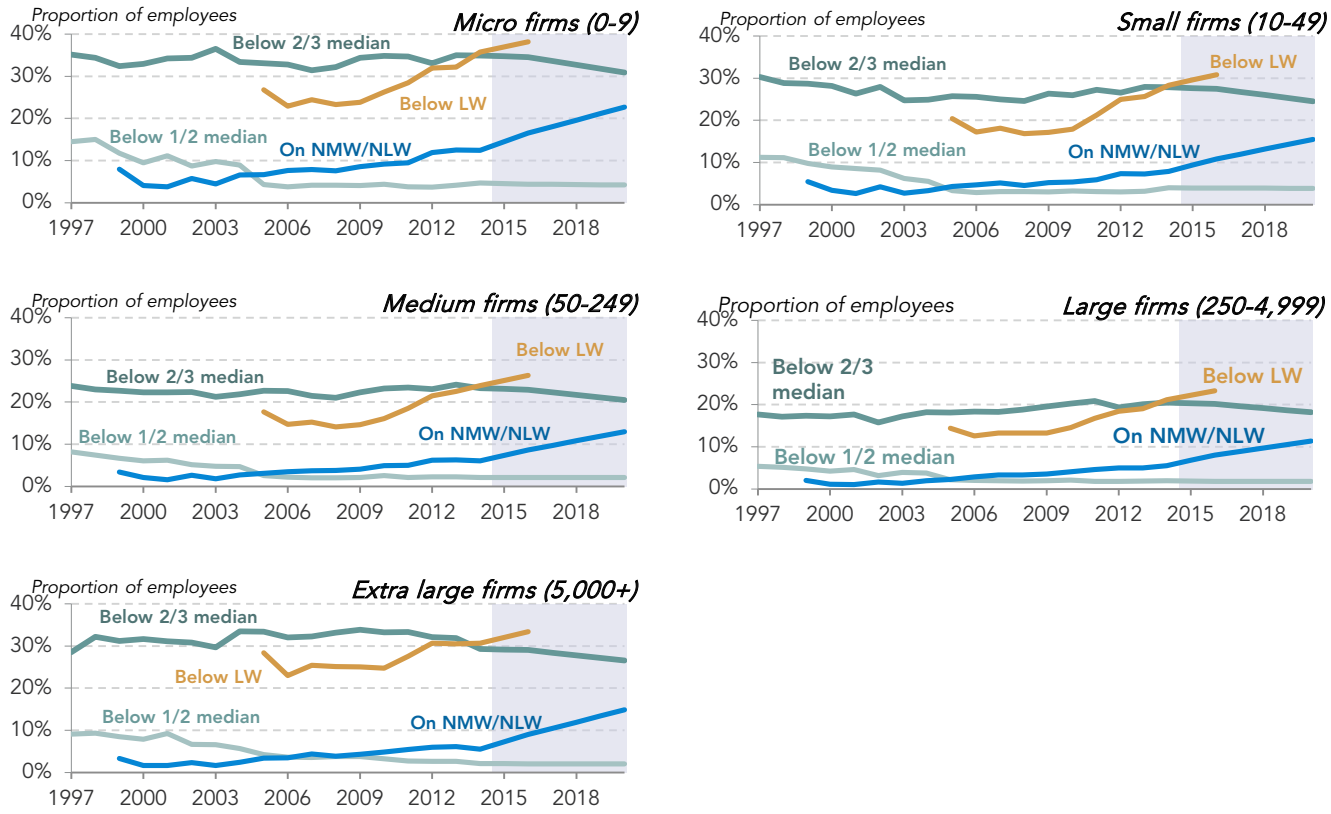
Figure 28: Proportion of low paid employees by firm structure, 1997-2020



Notes: See notes to Figure 22.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

Figure 29: Proportion of low paid employees by firm size (number of employees), 1997-2020

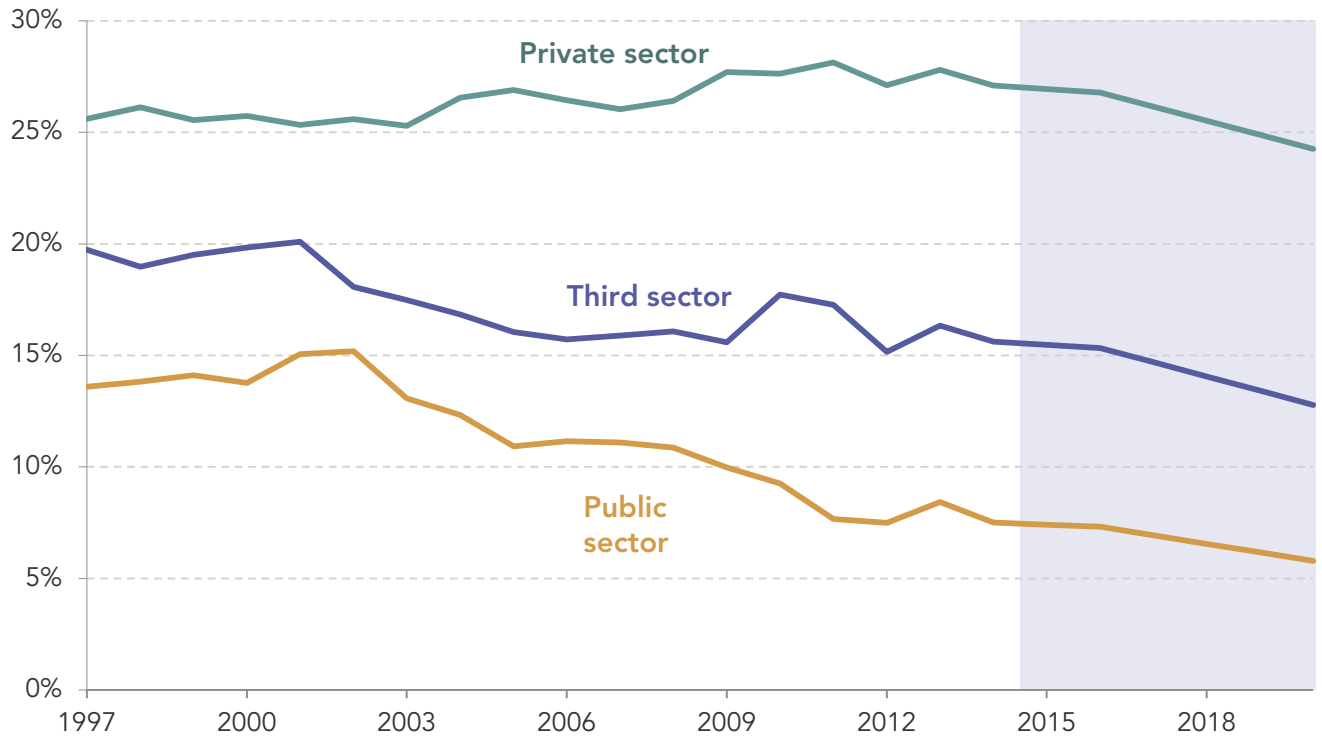


Notes: See notes to Figure 22.

Sources: RF analysis of ONS, Annual Survey of Hours and Earnings

Figure 30: Proportion of employees in low pay by broad sector, 1997-2020

Proportion of employees below 2/3 all-employee median pay



Notes: See notes to Figure 22.

Sources: RF analysis of ONS, *Annual Survey of Hours and Earnings*

Annex 1: Data sources and methodology

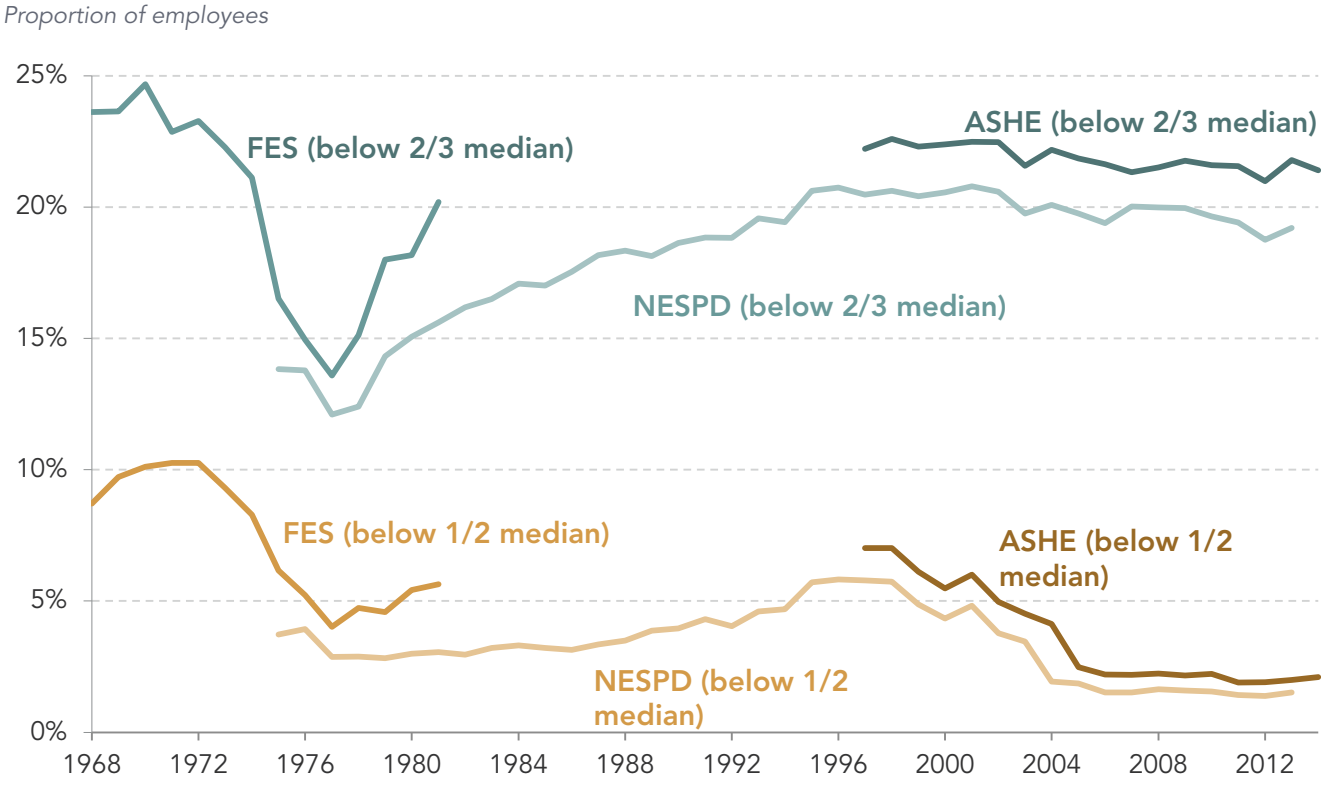
In this Annex we describe the data sources and methods used throughout this report.

Combining different datasets to track low pay over time

As detailed in the main report, where we present time series stretching back before 1997, the figures are drawn from multiple sources. We use hourly pay data across full-time and part-time employees from three sources: the *Family Expenditure Survey* (FES) covering 1968 to 1981; the *New Earnings Survey Panel Data* (NESPD) between 1975 and 2013; and the *Annual Survey of Hours and Earnings* (ASHE) for the period between 1997 and 2014.

As the largest of the three surveys, ASHE provides the greatest level of accuracy. The FES data in particular should be treated with caution, with its derivation depending on the self-recording of 'normal weekly pay' and 'normal weekly hours worked'. In order to provide a consistent basis for our time series, we have adjusted both the FES and NESPD data to bring them into line with the ASHE figures. To do this, we consider the size of the gap between the various sources in the years in which they overlap and inflate or deflate over the remaining period accordingly. Figure 31 presents figures from the three sources in their raw form.

Figure 31: Proportion of all employees below selected low pay thresholds in different data sources, 1968-2014



Notes: GB. Family Expenditure Survey data is based on the derived hourly normal pay figure (code: p011) for all adults aged 18 and over. New Earnings Survey Panel Data and Annual Survey of Hours and Earnings data refer to hourly earnings excluding overtime and cover all employees aged 16 and over who report a valid work office region and who have not had their pay affected by absence in the time covered.

Sources: RF analysis of DWP, Family Expenditure Survey (1968-1981); ONS, New Earnings Survey Panel Data (1975-2013); and ONS, Annual Survey of Hours and Earnings (1997-2014)

It shows the overlap between the FES and NESPD figures in the late 1970s, and between the NESPD and ASHE data from the mid-1990s. The gap between NESPD and ASHE appears relatively consistent (and relatively small), suggesting that it is reasonable to apply the same adjustment across the NESPD period. The gap between NESPD and FES appears less uniform (and a little larger), but the general trends are still in line. Having adjusted the FES data down to match the NESPD and then adjusted it back up to match ASHE, we end up with figures not far removed from the raw FES numbers.

Measuring low pay in ASHE

The data cleaning processes and assumptions we apply to ASHE microdata are similar to those used by the ONS. We use an hourly pay variable that excludes overtime (but not shift premia), and we exclude jobs in which pay has been affected by absence from our analysis. In addition, we exclude *jobs* with missing or zero hourly pay data when calculating the prevalence of low pay, but then apply the resulting proportions to the total number of *employees* as measured in the ONS's Labour Force Survey (considered the best survey for measuring employment totals) in order to report the number of low paid people.

While ASHE statistics published by the ONS cover the UK as a whole, the microdata available to researchers is for Great Britain only, therefore the majority of the analysis in this report excludes Northern Ireland.

To calculate the number and proportion of employees 'on' the National Minimum Wage (and future National Living Wage) we capture employees earning up to 1 per cent above their age-specific NMW/NLW rate (i.e. this measure includes those earning below the NMW due to non-compliance). The 1 per cent buffer is applied due to uncertainty in the hourly wage data and because many employees are paid a few pence above the rate itself in order that their employers not be considered 'minimum wage businesses'. However, in practice, their wages are strongly determined by the rate of the NMW, not least because the NMW has grown by at least 1 per cent each year since 2001, meaning that those up to 1 per cent above it are likely guaranteed a pay increase. Apprentices paid more than their legal minimum (£2.68 in April 2014) but less than the usual minimum for their age group are nonetheless counted as 'on' the NMW/NLW.

Assessing the impact of the National Living Wage on low pay

In Section 2 of this report we cast forward to how Britain's prevalence of low pay might look in 2016 (when the new NLW will have been introduced) and 2020 (when it is expected to top £9). To do this we follow the same methodology used in our two previous reports on the potential impact of the NLW.[31] For a detailed description of our approach refer to the annexes to these reports. A summary of some of the key steps is as follows:

- To cast forward to 2016 and 2020, we identify the values that are 55 and 60 per cent of median earnings of those aged 25 and over in the 2014 ASHE microdata. This is in line with the stated intention that the NLW be equivalent to 55 per cent of median earnings for those aged 25 and over in 2016, rising to 60 per cent by 2020.
- We apply these estimates of the NLW to the wage distribution, adjusting affected individuals' wages up to (at least) the new minimum.
- As well as direct effects on employees whose pay is below the new minimum, we incorporate indirect or 'spillover' effects, where wage increases ripple higher up the wage distribution, for example in order to preserve the earnings differentials that existed prior to the new wage floor.

[31] C D'Arcy, A Corlett & L Gardiner, *Higher ground: Who gains from the National Living Wage?*, Resolution Foundation, September 2015; C D'Arcy & A Corlett, *Taking up the floor: Exploring the impact of the National Living Wage on employers*, Resolution Foundation, September 2015

These are modelled on the basis of the latest academic literature on their size and incidence in the UK.

» The resulting estimates of the number of people in low pay are uprated to 2016 and 2020 using OBR projections for employment growth.

» We assume a linear progression in the prevalence of low pay between 2014 and 2016, and between 2016 and 2020. Note that in practice the pattern will be different, particularly because it is up to the Low Pay Commission to determine how the NLW moves from its starting rate in April 2016 to its 2020 target value.

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- *developing practical and effective policy proposals; and*
- *engaging with policy makers and stakeholders to influence decision-making and bring about change.*

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