

Title: Amendment to the National Minimum Wage regulations 2015 - introducing the National Living Wage IA No: BISLM010 Lead department or agency: Department for Business Innovation and Skills (BIS) Other departments or agencies:	Impact Assessment (IA)				
	Date: 30/11/2015				
	Stage: Final				
	Source of intervention: Domestic				
	Type of measure: Secondary legislation				
Contact for enquiries: Labourmarket.analysis@bis.gsi.gov.uk					
Summary: Intervention and Options					RPC Opinion: GREEN

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2014 prices)	In scope of the Business Impact Target?	Measure qualifies as
-£22.6m	-£863.30m	£820.97m		NA

What is the problem under consideration? Why is government intervention necessary?

The economy requires rebalancing from a low wage, high tax, high welfare society to a higher wage, lower tax, lower welfare society. The National Living Wage (NLW) is an essential part of a package of measures, including changes to tax, national insurance, and further welfare reform, aiming to achieve this. It ensures that work pays and that low wage workers take a greater share of the gains from growth. The microeconomic rationale for the NLW remains as with the National Minimum Wage - to ensure that unequal bargaining power is not used by employers to undercut competitors by paying unacceptably low wages.

What are the policy objectives and the intended effects?

The policy objectives are to:

- raise the earnings of the lowest-paid;
- increase the incentive to work;
- and move to a higher wage, lower tax, lower welfare society.

The intended effect is to protect the low paid and allow low wage workers to take a greater share of the gains from growth.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Two options have been considered:

Option 0) Do nothing – maintain current National Minimum Wage (NMW) rates and system

Option 1) Introduce a NLW into the current NMW framework. This would be introduced in April 2016, initially set at £7.20 and apply to those aged 25 and over.

Option 1 is preferred because we estimate that it will directly increase the earnings of 1.7 million workers to the new threshold and that a full-time worker on the current NMW will earn £910 more next year under the NLW. This both raises the earnings of the lowest paid and also provides a greater incentive to work. In conjunction with measures announced in the Budget, it will also help rebalance the economy by raising wages and lowering taxes/welfare.

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** Annually by the Low Pay Commission (LPC) in their Report and by the Government in evidence given to the LPC.

Does implementation go beyond minimum EU requirements?			N/A		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	Micro Yes	< 20 Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded: N/A	Non-traded: N/A	

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister: _____ **Nick Boles** _____ Date: 7 Dec 15

Summary: Analysis & Evidence

Policy Option 1

Description: Option 1) Introduce a NLW into the current NMW framework

FULL ECONOMIC ASSESSMENT

Price Base Year 15/16	PV Base Year 16/17	Time Period Years 1	Net Benefit (Present Value (PV)) (£m)		
			Low: N/A	High: N/A	Best Estimate: -£22.60

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	N/A	N/A	N/A
High	N/A	N/A	N/A
Best Estimate	£22.6m	£1,116.1m	£1,138.7m

Description and scale of key monetised costs by 'main affected groups'

The estimated total cost of £1,138.7m is made up of the following components:

- £698.1m direct cost to employers from raising wages to meet the new statutory minimum of £7.20, and £137.5m associated non-wage labour costs (i.e. pension and National Insurance Contributions).
- A 'ripple effect' up the earnings distribution (driven by businesses maintaining pay differentials) £59.5m direct labour cost (due to existing contractual arrangements) and £221m indirect labour cost (discretionary choice made by businesses).
- £22.6m transition costs – familiarisation and implementation of updated pay records

Other key non-monetised costs by 'main affected groups'

The National Living Wage may have macroeconomic impacts. The core estimate is for an increase in the structural unemployment rate of 0.03 percentage points (equivalent to employment being reduced by just under 9,000 jobs), an increase in average earnings growth of 0.1 percentage points, and an increase of hourly productivity of 0.05 percentage points. These effects span both costs and benefits from a social perspective. Additionally, the indirect cost of employers reviewing their pay practises in light of the NLW (e.g. whether they pay the new rate to all employees, whether they change wider rewards packages) may introduce costs in terms of time spent undertaking reviews.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	N/A	N/A	N/A
High	N/A	N/A	N/A
Best Estimate	0	£1,116.1m	£1,116.1m

Description and scale of key monetised benefits by 'main affected groups'

The NLW creates a transfer. The employer costs are reflected as benefits to employees and the exchequer:

- £698.1m direct benefit to employees from higher wages, and £137.5m of benefit split between additional pension contributions for employees and National Insurance revenues for the exchequer.
- £234.3m wage benefit to employees and £46.2m associated benefit split between pension contributions for employees and NI revenues for the exchequer from the 'ripple effect'. £59.5m of this is direct and £221m is indirect due to the differing discretionary nature of the spillovers underpinning the ripple effect.

Other key non-monetised benefits by 'main affected groups'

The non-monetised macroeconomic impacts outlined above include both costs and benefits.

Key assumptions/sensitivities/risks

Discount rate (%) N/A

The counterfactual is a continuation of the current NMW system where wages increase in line with OBR average earnings projections and all workers are paid at least the NMW (i.e. no non-compliance). Based on academic literature, a spillover effect is incorporated whereby wages for some workers are increased to maintain the pay differential with previously lower-paid workers. Macroeconomic effects are quantified, but they are uncertain and so are not monetised. The amendment will be reviewed fully in one year. Anticipation effects and transition costs are negligible.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies
Costs:	821.0	Benefits: 0.0	Net: -821.0	NA

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The problem and rationale for intervention

The Government believes that the economy needs rebalancing from a low wage, high tax, high welfare society to a higher wage, lower tax, lower welfare society. This rebalancing is important for reasons of equity – it is important to ensure that work pays, we reduce reliance on the State topping up wages through the benefits system, and that low wage workers take a greater share of the gains from growth. The UK can also do more to raise the wages of the low-paid compared to other countries - 22% of UK workers are low-paid, compared to the OECD average of 16%¹.

As set out later, external analysis has called for a better balance between short-term flexibility and setting a medium-term direction for changes to the wage floor. Research led by a previous Low Pay Commission chair has proposed a higher ratio of the wage floor to median wages as a way to contribute to reducing low pay over the medium to long-term.

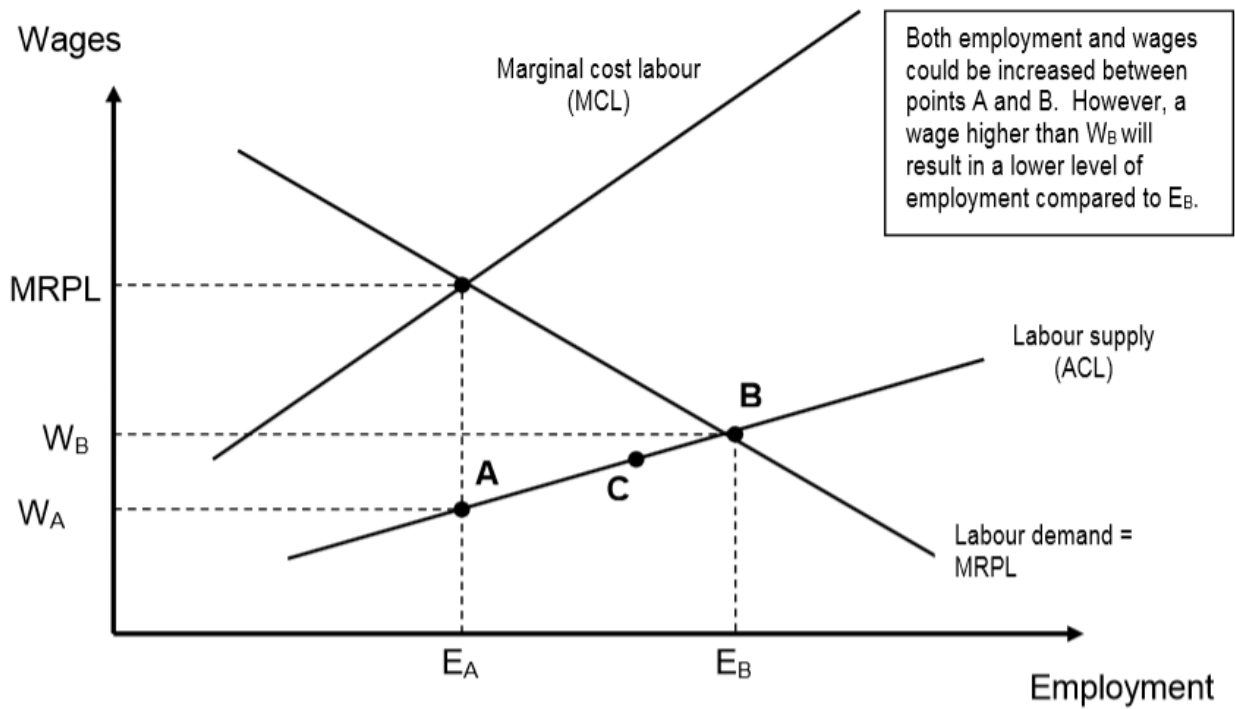
In order to achieve this, the NLW is being introduced as part of a package of measures set out in the Budget 2015 that includes changes to tax, national insurance, and further welfare reform. Beyond the NLW, this includes reducing taxes on working people by further increasing the personal allowance, doubling free childcare entitlement from 15 hours to 30 hours a week for working parents of 3 and 4 year olds, and saving £12 billion from the working-age welfare budget by 2019-20. This impact assessment only assesses the impact of the NLW, not the full package of measures.

The NLW will become the statutory pay floor for workers aged 25 or older. The microeconomic rationale for a statutory pay floor remains as with the National Minimum Wage. It is there to ensure that unequal bargaining power is not used by some employers to undercut competitors by paying unacceptably low wages.

The statutory wage floor can lead to economic welfare improvements by counteracting this unequal bargaining power. In a perfectly competitive labour market, equilibrium arises when the wage equates the demand for labour – based on the marginal revenue product of labour – with the supply of labour. To illustrate the implications of imperfect labour markets where employers have market power, consider a stylised example of a monopsonist. In order to attract new workers, it must raise the marginal wage, but it must pay this new, higher wage to all its employees. Consequently the marginal cost of labour is greater than the average cost as captured by the labour supply curve. The employer will maximise profits when the marginal cost of labour equals the marginal revenue product. This is illustrated by point A in the following diagram. This equilibrium has lower wages and lower employment than the perfectly competitive equilibrium as illustrated by point B. A statutory wage floor can address this market power and bring the market equilibrium closer to the efficient, perfectly competitive outcome – such as point C.

¹ The OECD defines this as earning less than two thirds of median earnings.

Figure 1: A labour market characterised by market power for low paid workers



From April 2016, the Government will introduce a new mandatory premium rate, the NLW, above the minimum wage for workers aged 25 and above. The NLW rate will be set initially at £7.20 – a rise of 50p relative to the National Minimum Wage (NMW) rate as of 1 October 2015. This will lead to an increase in earnings of £910 in 2016 for a full time worker on the current NMW.

The Government has set the aspiration that the NLW reaches 60% of median earnings by 2020. Based on current OBR forecasts we would expect the NLW to reach a level of over £9 by 2020. We will ask the Low Pay Commission (LPC) to recommend the level of the premium in each subsequent year. The LPC will be asked to consider economic conditions when making these recommendations. The LPC remit is set out in Annex 5 of this Impact Assessment.

We estimate that 1.7 million workers will see their wages raised to the new NLW in 2016 and 4.2 million others will benefit further up the earnings distribution. Based on OBR forecasts a full time NMW worker will earn over £4,800 more by 2020 from the NLW in cash terms, or £4,400 after taking inflation into account.

Policy objective

With joint record employment, the highest GDP growth in the G7, over 2 million jobs created since the 2010 election, and 1.1m more forecast by the OBR, the Government believes that now is the right time to take action to ensure low wage workers can take a greater share of the gains from growth.

In this context, the policy objectives are to:

- Raise the earnings of the lowest paid;
- Move from a low wage, high tax, high welfare society to a higher wage, lower tax, lower welfare society;
- Increase the incentive to work.

Options identification

This IA considers two options:

Option 0) Do nothing – maintain current NMW rates and system

Option 1) Introduce a NLW into the current NMW framework

These will be assessed against the policy objectives set out above.

Option 1: introduce a National Living Wage

Option 1 would be to introduce a new NLW premium on top of the rates in the current NMW framework. As outlined in Table 1, this would be introduced in April 2016, initially set at 50 pence (creating a NLW of £7.20), and it would apply to those aged 25 and above.

Table 1: Proposed NLW introduction and other age-related rates

From October 2015			From April 2016		
Youth rate	16-17	£3.87	Youth rate	16-17	£3.87
Development rate	18-20	£5.30	Development rate	18-20	£5.30
Adult rate	21+	£6.70	Adult rate	21-24	£6.70
			National Living Wage	25+	£7.20

This rate would be subject to the same exemptions as the NMW rates. Employees in the first year of an apprenticeship would be due the Apprentice rate.

The premium would be reviewed each year. While it is the aspiration of the Government, the target of the NLW reaching 60% of median earnings by 2020 is not required or included in this regulatory amendment and therefore it is not analysed directly in this IA. This amendment is the first step in the NLW policy.

Rationale for policy design

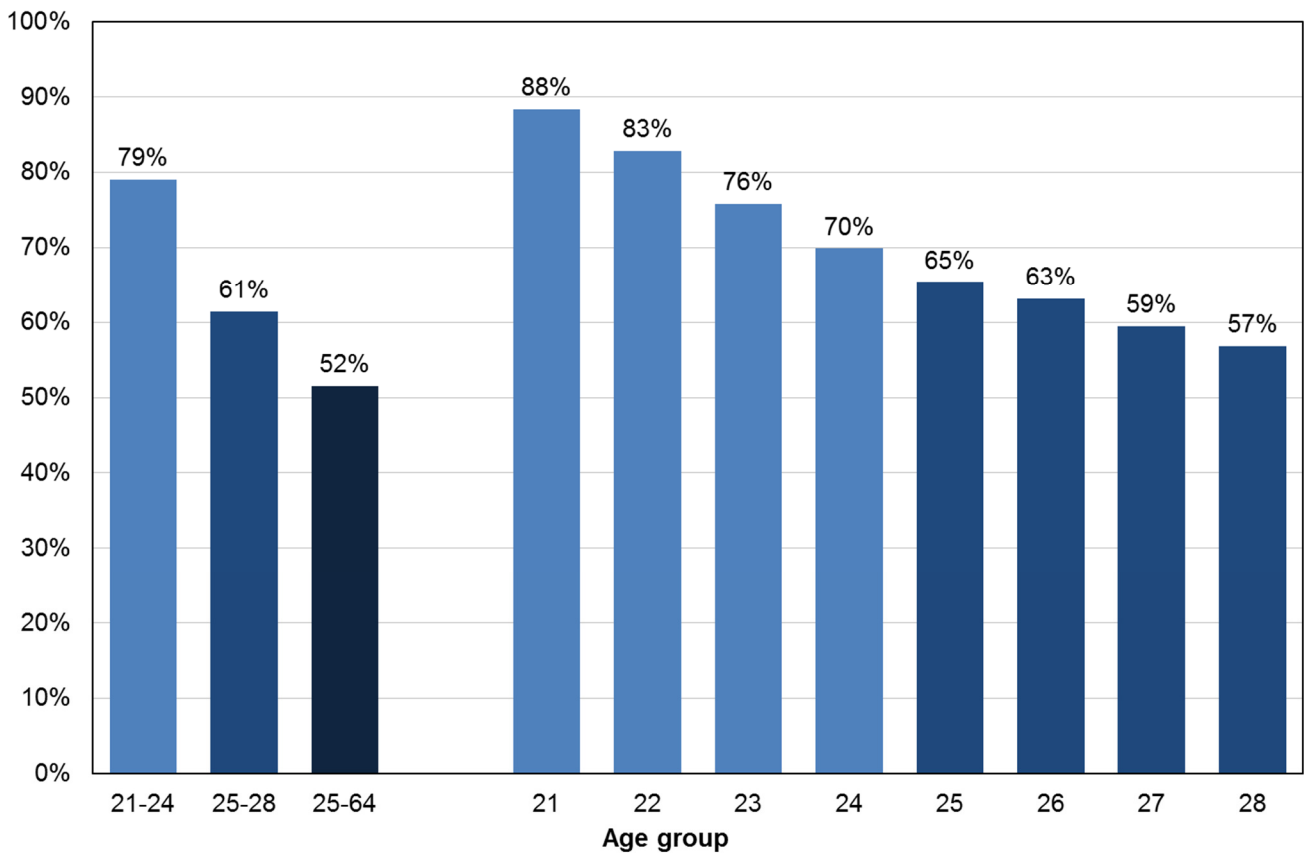
Targeting those aged 25 and above

The NLW would be limited to those aged 25 and above because we need to protect the employment prospects of younger workers. As with the 16 to 17 and 18 to 20 NMW rates, the new rate category would achieve this while still allowing for an increase in the statutory wage floor.

This is necessary for two reasons. Firstly, the priority for younger workers is to secure work and gain experience so that they can compete in the labour market. Secondly, those aged 21 to 24 have a marked difference in labour market dynamics when compared to older workers, including those aged 25 to 28. This is evident through differences in their median earnings, employment rates and unemployment rates (taking into account those in full-time education).

The National Minimum Wage Act allows for minimum wages to treat differently those aged up to 26 under clause 3. Workers aged above this must receive the same rate. This cut-off was chosen “to ensure that regulations apply to all those who may reasonably be taken to fall within the category of young people”. The Act notes that the International Labour Organisation and European Union each define young people as those aged 25 or under. Furthermore, within the UK those aged under 25 were defined as young people for the purposes of student support, social security payments, and the New Deal.

Chart 1: The adult NMW rate as a proportion of median earnings by age group and by age, April 2014



Source: Annual Survey of Hours and Earnings, 2014

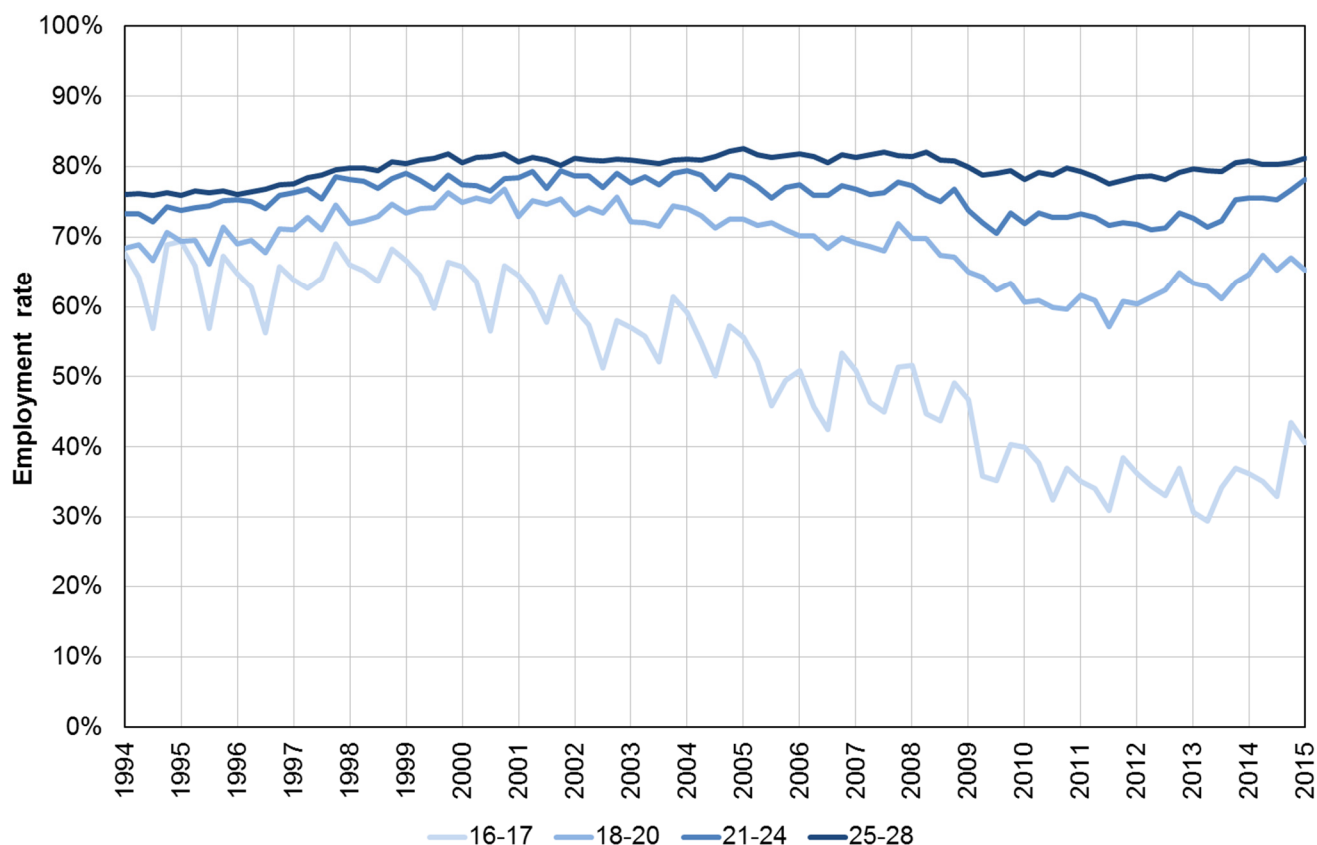
With lower median earnings, younger workers are disproportionately affected by the minimum wage and this means that they are more at risk of adverse employment impacts. Chart 1 shows us that in 2014 the ‘bite’ of the adult minimum wage of £6.31 (i.e. the level of the wage floor relative to the median earnings of the group in question²) was over 70% for each age from 21 to 24, while for each age above 25 the bite was below 65%.

The median wages which underlie these bites increase by nearly 10% for each extra year of age for those aged 21 to 24, but for those aged 25 and above the pace of increase in the median tapers off, being roughly 5% for each age from 25 to 28.

Younger workers also face tougher labour market conditions with lower employment rates and higher unemployment rates³.

Focusing on those not in full-time education, Chart 2 shows that 21 to 24 year olds are consistently less likely to be employed than 25 to 28 year olds. Employment rates for those aged 21 to 24, which fell following the 2008 crisis, did not fully recover from their pre-crisis peak of 76.9% until the beginning of 2015, and suffered a greater fall than those aged 25 to 28.

Chart 2: Quarterly employment rates for those not in full-time education, aged 16-17, 18-20, 21-24 and 25-28, 1994 to present



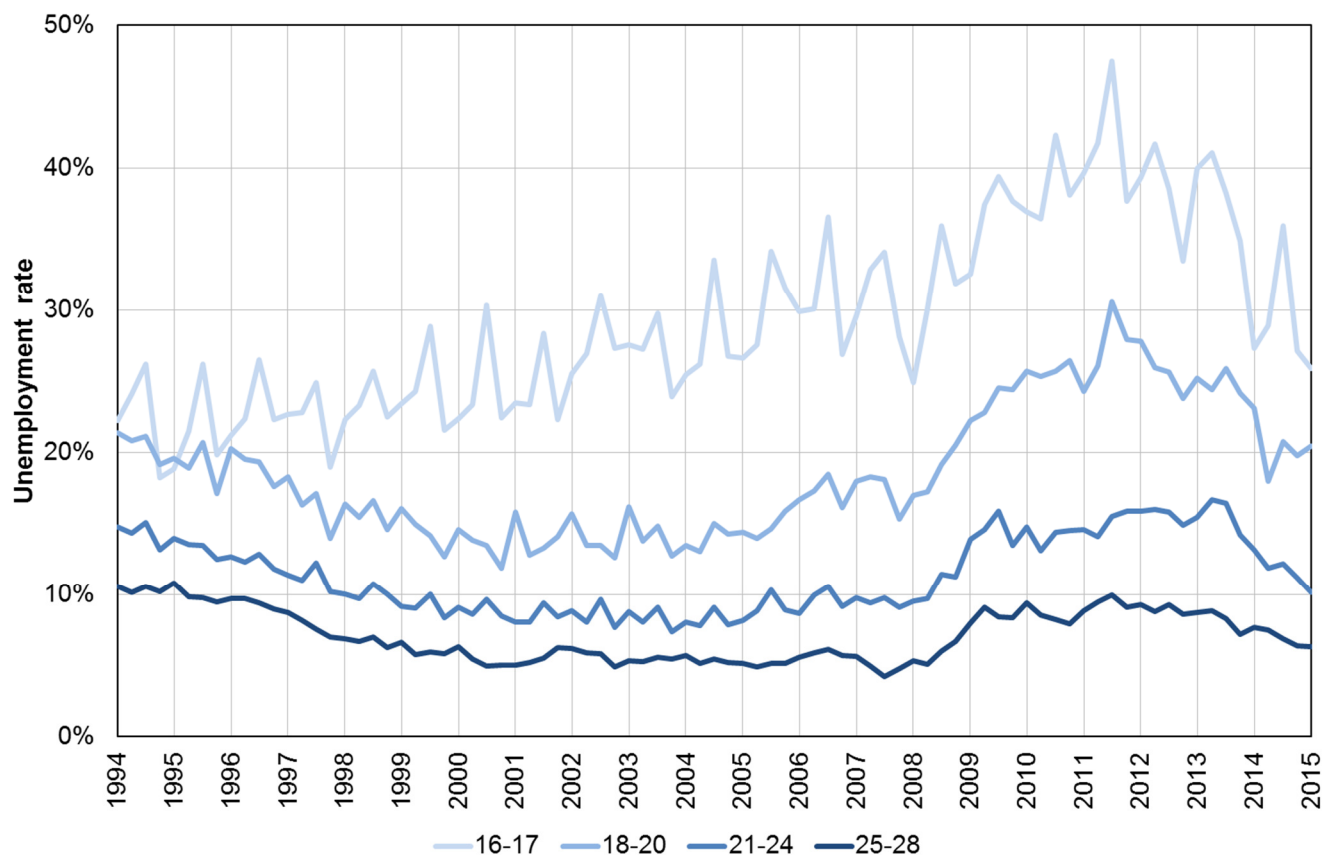
Source: Quarterly Labour Force Survey Q1 1994 to Q1 2015

² For example, a bite of 83% for 22 year olds means that the adult NMW was at a level equivalent to 83% of the median earnings for 22 year olds.

³ These rates are different. The employment rate measures what fraction of the population is in work. The unemployment measures what fraction of the workforce (i.e. those in work plus those looking for work) do not have employment.

Looking over the last 20 years in Chart 3, 21 to 24 year olds face higher rates of unemployment than 25 to 28 year olds. Following the economic downturn in 2008, we also see that 21 to 24 year old workers were more sensitive to the ensuing employment shock than older workers aged 25 to 28.

Chart 3: Quarterly unemployment rates for those not in full-time education, aged 16-17, 18-20, 21-24 and 25-28, 1994 to present



Source: Quarterly Labour Force Survey Q1 1994 to Q1 2015

More generally, Charts 2 and 3 show that this result is not specific to the 21 to 24 and 25 to 28 age groupings: those aged 16 to 17 and 18 to 20 face even lower employment rates and even higher unemployment rates.

Introducing the NLW at a lower age threshold could damage employment prospects because the impact on the younger workers would be greater and they already face higher unemployment rates. Introducing a new rate at a 25 and above threshold allows older workers to benefit from a higher wage floor without potentially harming employment levels for younger workers.

The £7.20 rate

Taking into account the Bain report, the Government has set an aspiration that the NLW reaches 60% of median earnings by 2020. We expect this to be over £9 based on OBR forecasts⁴.

⁴ Note that the Bain report referred to increasing the NMW adult rate to a 60% bite. Due to the median earnings for 25 and above being greater than the median earnings for those aged 21 and above, the 60% bite of the NLW implies a more ambitious rate than is implied by the Bain report.

This amendment sets a NLW of £7.20. This represents an increase of 7.5% to the current statutory wage floor for those aged 25 and above. This level has been chosen because it represents a significant first step, while at the same time it is not without precedent:

- The NLW is estimated to have a bite of 55% and this is very close to the bite of the latest adult NMW rate, which the LPC estimates would reach 54.7%⁵.
- The adult NMW increased by 10.8% in 2001, 7.1% in 2003, and 7.8% in 2004. Similarly large increases have occurred for each of the other rates over various years. The LPC Report 2013 concluded that there is “little evidence of a significant adverse effect of the minimum wage on employment”.

Policy development and consultation

In introducing the NLW, the Government has drawn on the views of stakeholders from across society. In particular, this includes the 2014 report by the Resolution Foundation, chaired by Professor Sir George Bain referred to above. It suggested setting a medium term direction for changes in the wage floor. It also recommended that targeting a bite of 60% of median earnings would be a “reasonable lodestar” for the medium to long term.

The Bain report also states:

- “The minimum wage should strike a better balance between short-term flexibility and medium-term ambition”
- That the Government should be “publishing an ambition for the level of the minimum wage expressed as a proportion of the median wage that could be attainable over the medium term (e.g., five years).”
- “Our view, based on UK and international evidence, is that a wage-floor worth 60 per cent of the median wage is a reasonable lodestar, indicating the most that a minimum wage could contribute to the goal of reducing low pay over the medium to long term.”

The Government’s understanding of the implications of the NLW for different sectors and groups in the economy has been helped by many years of advice and analysis from the LPC. The LPC considers and provides detailed analysis of the impact of wage floor changes in the labour market. It also consults extensively with civil society, businesses, and employee representatives

The analysis in this Impact Assessment is also informed by informal consultation with a variety of stakeholders, including business groups.

- the scope and content of our analysis has been informed by views offered by stakeholders. For example, we have included a detailed assessment of the impact on small businesses and on low pay sectors and this is appropriate in light of concerns

⁵ Low Pay Commission, National Minimum Wage Report 2015, page 271. While the NLW will be significantly higher than the current NMW, median earnings for those aged 25 and above is also higher than median earnings for those aged 21 and above, so the bites of the rates for the respective groups are similar.

raised by bodies such as the Federation of Small Businesses⁶ and the Institute of Directors⁷ respectively.

- Our methodological approach is informed by and consistent with the analysis undertaken by others. For example, the macroeconomic impacts estimate is based on OBR analysis which considered the implications at the business, sector and aggregate economy level. That work has underpinned the assessment of macroeconomic outcomes, taking into account behavioural assumptions (in particular, the different ways in which businesses can respond to the change in the wage floor). Additionally, our modelling of a spillover effect is based on academic literature and corroborated by recent survey results from PwC and the Chartered Institute of Personnel and Development.
- Our analysis has also been informed by more qualitative engagement - for example on transition costs and the degree to which the ripple up the earnings distribution will be discretionary.

The role of the Low Pay Commission

We have asked the LPC to make recommendations for changes to NMW rates in October 2016 and for the next level for the NLW in April 2017. The remit of the Low Pay Commission is reproduced in Annex 5.

The remit of the LPC is very similar to previous years and the LPC will continue to make recommendations for future NMW rates. The remit only changes in the following respects:

- The LPC will also make recommendations for future NLW rates and the trajectory to the 2020 aim of 60% of median earnings. As at present, this will be done with due regard for the wider state of the economy, employment and unemployment levels, and relevant policy changes.
- The LPC has been asked to suggest indicative rates for one year further ahead in order to increase business certainty.
- The dynamics of the adult NMW rate have now changed as it will effectively apply to 21-24 year olds only.

⁶ See for example <http://www.cityam.com/225762/national-living-wage-will-hit-hiring-small-firms-federation-small-businesses>

⁷ See for example <http://www.cityam.com/225154/business-groups-raise-red-flag-future-pay-rises>

Impact of Option 1: National Living Wage

Methodology

Core analysis

To estimate the impacts of the NLW on the earnings distribution of those aged 25 and over we use the Annual Survey of Hours and Earnings (ASHE), from 2014, to conduct wage distribution analysis.

Our counterfactual is that, in a world where the NLW has not been introduced, all workers would see their wages increase in line with OBR average earnings projections and that all workers would be paid at least the NMW. This is discussed further below.

The NLW cycle from April to April, starting in 2016, straddles two sets of NMW rates: those from October 2015 and those from October 2016. There will be a new NMW rate from 1st October 2016, which will be announced earlier in 2016 following LPC recommendations. For our counterfactual we assume that, in the absence of a NLW introduction, the NMW increases in October 2016 in line with average earnings.

First, we bring forward the wage distribution from Q2 2014, the time of sampling for ASHE, to Q4 2016, the midpoint of the NLW cycle for the financial year 2016/17 under consideration (this one-year time period is discussed below). This is done by inflating by OBR average earnings forecasts. We also reweight the data in line with OBR employment level forecasts to reflect shifts in the size of the employee workforce.

We then select the age group that would be principally affected: those aged 25 or over who are not apprentices in their first year. For coverage estimates we include all worker types, but for our final cost to business estimates we isolate those in the private sector.

In line with OBR methodology⁸, we assume that the NLW introduction will have a spillover effect. This models that, as a higher wage floor is implemented, some employers will choose to give pay rises to those paid above but near the new minimum, and choose to increase the pay of some workers previously paid below the new minimum to a level greater than £7.20. This is out of a desire to maintain wage differentials between their employees. The effect dissipates, reducing in magnitude up to the 25th percentile of the income distribution.

We model our spillover effect at a maximum impact of 20% of the wage floor increase, with the effect tapering linearly down to nothing at the 25th percentile of the wage distribution. Both of these assumptions are as suggested in research published by the LPC⁹. This, again, is the same as the methodology used by the OBR. This is also supported by recently published survey evidence from PwC. In a survey of 135 businesses, over half (57%) said they were likely to spend more on their wage bill to maintain pay differentials between their lowest pay bands¹⁰. This survey also gathered estimates of wage bill impacts on individual firms. In a survey carried

⁸ OBR, Economic and fiscal outlook – July 2015

⁹ Butcher, Manning and Dickens (2012) "Minimum Wages and Wage Inequality: Some Theory and an Application to the UK", Discussion Paper (Low Pay Commission; University of Sussex; London School of Economics)

¹⁰ http://pwc.blogs.com/press_room/2015/10/businesses-need-to-take-proactive-stance-on-national-living-wage-business-survey-.html

out the Chartered Institute of Personnel and Development and the Resolution Foundation, 20% of employers said they would maintain pay differentials in this way¹¹.

This spillover effect – when applied to the counterfactual distribution with the NMW of £6.70 – allows for an estimate of how many employees will be paid the new £7.20 rate. In reality, the coverage of the NLW is not just all those paid £7.20 and under in the counterfactual distribution; rather, there are workers who are paid below £7.20 in the counterfactual distribution but would be paid over £7.20 if the NLW were introduced precisely because employers wish to maintain a differential between their pay and those who were previously paid lower but are now paid £7.20.

Consequently, the spillover effect plays two roles: firstly, it impacts the coverage of the NLW and consequently the additional cost to employers of raising those workers' wages to the new statutory minimum; secondly, it causes a ripple effect up the earnings distribution where other workers that are not on the new NLW still receive a pay rise in order to maintain the earnings differential from lower-paid workers. This IA separates the impact on employment cost into the former, direct effect of raising wages to comply with the NLW and the latter – principally indirect - behavioural effect of a wage rise 'rippling' up the earnings distribution.

To calculate the increase in the annual wage bill, for each penny increment of the estimated 2016 wage distribution we multiply the increase in hourly wage above the counterfactual by the number of people at that rate, by the average hours worked per week, and by 52; that is, we take a snapshot of the impact halfway through the year (October 2016) and extrapolate this for the entire period. This is appropriate because the gap between the NLW and the counterfactual earnings distribution will be biggest at the start of the year and smallest at the end as the counterfactual distribution increases with average earnings. Taking a snapshot at an earlier stage would systematically overestimate the impact, while a snapshot later would systematically underestimate it.

To assess the full labour cost to employers, we uprate the wage bill impact by 19.7% to account for non-wage labour cost increases that depend upon wages, such as pensions contributions and employer national insurance contributions. This factor of 19.7% stems from Eurostat analysis on non-wage labour costs¹².

The total direct cost to business is therefore the change in labour cost to business if the NLW is implemented – the labour cost with a NLW, minus the counterfactual labour cost, for each worker covered by the NLW.

Outputs presented in this IA are deflated to 2015/16 prices using the GDP Deflator (September 2015 update). In keeping with Green Book guidance, no discount rate is applied because the appraisal period is only one year.

The analysis undertaken in this IA was undertaken before the release of ASHE 2015.

Other analysis

Impact on specific groups

The impact on the following groups is also analysed:

¹¹ <https://www.cipd.co.uk/pressoffice/press-releases/nlw-rf-release-181115.aspx>

¹² In 2014, average UK wage costs were €18.64 per hour relative to total hourly labour costs of €22.31. http://ec.europa.eu/eurostat/statistics-explained/index.php/Hourly_labour_costs

- Small and micro businesses
- Equalities considerations: gender, age, ethnicity, and disabilities
- Low-pay sectors

This analysis follows the same earnings distribution analysis methodology set out above.

Macroeconomic impact

The assessment of the macroeconomic impact of the NLW is based on the same methodology as the OBR's analysis of the impacts in 2020. The results are for the calendar year 2016 rather than financial year 2016/17.

This involves combining micro- and macro-economic analysis. ASHE data is used to model the wage costs for each penny increment of the earnings distribution. This is then combined with macroeconomic assumptions, adjustments and analysis that assess how the impact on labour costs can feed through a variety of macroeconomic channels (e.g. changes in hours worked, productivity, price level etc.) based on certain assumptions - for example, a wage cost pass-through rate of 50%, the effect on hours worked divided 50:50 between employment and average hours, and an elasticity of labour demand of -0.4 (i.e. that for every one unit increase in wages, demand for labour falls by 0.4 units). Further detail can be found in the OBR's Economic and Fiscal Outlook 2015 (Annex B).

This analysis was tested at different levels of disaggregation – macro, sector level and firm level – and combines both 'bottom up' and 'top down' approaches.

Transition costs

Routine changes to the NMW do not have significant transition costs. This is because the NMW cycle is fully embedded in the labour market and businesses anticipate forthcoming increases.

However, we recognise that there are likely to be one-off transition costs resulting from the introduction of the NLW. This is for two reasons: firstly the NLW is introducing a new rate structure based on age; and secondly, the NLW will be introduced in April, rather than the normal October uprating of the NMW rates.

Based on informal consultation with business groups, we believe that the transition costs will consist principally of (i) familiarisation with the new requirements and (ii) implementation of the regulation through changes to employees' pay.

Our approach to monetising the familiarisation costs is based on valuing the time taken to read the relevant NLW guidance available on gov.uk. We produce a range of estimates based on different proportions of the business population that undertake this familiarisation.

Our approach to monetising the implementation costs is to monetise the value of the time taken by an administrator to update the payroll record of each individual employee impacted by the NLW. This is based on evidence from the Federation of Small Businesses. This is a highly cautious approach to estimating the costs because we expect that larger businesses will enjoy economies of scale whereby payroll software enables them to implement the change for multiple employees at the same time, rather than manually updating each.

Our informal consultation also provides evidence that some businesses will be prompted to review their pay structures and reward packages in light of the NLW. For example, businesses may review whether to pay the new NLW only to those aged 25 and above or to all their employees. That these reviews arise is evident from the fact that some major employers such as Starbucks and Costa Coffee have announced that they will pay the NLW to all their employees irrespective of age¹³.

We recognise this as a qualitative indirect cost of the regulation. We believe it is an indirect cost because the regulation only requires that those aged 25 and over are paid £7.20, not that businesses ought to review their pay for other age groups or their wider pay packages. We have not monetised this impact because of the diversity of possible forms any such review could take. Firstly, many firms will not decide to review their wider pay practises in light of this regulatory change. Secondly, firms may review varied combinations of a whole host of different factors – age related pay, overtime, salary sacrifice, other rewards. Thirdly, the nature of any such review would vary according to the objectives and characteristics of the business; businesses focused on efficiency may take a purely computational decision based on estimated costs, whereas other businesses may consider their public image, the equity of their packages, the attractiveness to and motivation level of employees. Finally, most businesses will review their pay practises regularly and will do so in light of wider regulatory and tax changes; it would be difficult to isolate the cost of this specific regulatory change from other changes and business as usual costs. These factors combined mean that any estimate of an ‘average’ review of pay practises would be highly spurious.

The Low Pay Commission is commissioning a series of research projects that may provide further evidence regarding these transition costs and the reviews to wider pay practises¹⁴.

Key assumptions

This Impact Assessment is based on the best available evidence alongside a set of necessary assumptions.

One year time period

The Government’s aim for a bite of 60% in 2020

This impact assessment does not appraise the full costs and benefits of meeting the Government’s aim for the NLW to increase to 60% of median earnings by 2020. This is for several reasons.

Firstly, while it is the ultimate ambition, it is not being incorporated in regulation and it is not there a duty imposed on businesses. Therefore, it would be inappropriate to formally appraise in this Impact Assessment.

¹³ <http://www.itv.com/news/2015-09-25/starbucks-staff-set-for-pay-rise-after-chain-agrees-to-extend-national-living-wage-to-all-employees/>
<http://www.telegraph.co.uk/finance/newsbysector/retailandconsumer/leisure/11901915/Costa-coffee-prices-wont-rise-despite-staff-wage-hike.html>

¹⁴ <https://www.contractsfinder.service.gov.uk/Notice/17d16ce2-86ae-4f8c-b4f4-d4dd625ba23b> and
<https://www.contractsfinder.service.gov.uk/Notice/17d16ce2-86ae-4f8c-b4f4-d4dd625ba23b> and
<https://www.contractsfinder.service.gov.uk/Notice/71709993-6a56-46bf-8ae9-a31cb5cc2c9f>

Secondly, doing so would risk undermining the vital independence of the Low Pay Commission. The LPC will recommend how and when it is possible to achieve this ambition, including with consideration of wider economic implications.

Thirdly, appraising the impact of the NLW in a series of one-year Impact Assessments will lead to a more accurate estimate of the total benefits and costs up to 2020. The two approaches - appraising the impact in such a way and appraising the entire impact through to 2020 in a single IA - would both capture all the impacts of the policy. However, our chosen approach will be more accurate because it will only require forecasting wage distributions and impacts one or two years ahead; appraising the full ambition now would require making estimates of the impacts several years in the future based on highly uncertain forecasts. This would reduce the overall robustness of the appraisal compared to a series of one-year IAs.

However, the impact of this ambition is discussed below, in particular with regard to the macroeconomic impacts.

Capturing all the impacts in one-year appraisal periods

This IA appraises the impact of options for 2016/17. However, in our counterfactual, it takes until midway through 2017/18 for the NMW pay floor to reach £7.20. This causes a problem if our appraisal for next year's amendment to the NLW uses the pre-existing £7.20 NLW as the counterfactual – the impact of the first amendment in the second year would not be captured.

Therefore, in our approach to future IAs where we appraise the impact of amendments to the NLW for one year only, we intend and fully expect to do so against the counterfactual of there being no NLW. We will use the best estimate that we have at the time for this counterfactual. For example, we may assume that the NMW would maintain a 55% bite, as it does at the moment. This approach ensures that all the impacts are captured across NLW IAs.

The alternative approach would be to appraise this and future NLW amendments over multiple time periods (if they are large enough to have impacts across years). This would also capture all the impacts of the NLW.

However, we have chosen to appraise for a single year for three principal reasons:

- Firstly, the multi-year approach would involve making assumptions about three future policy changes (the NMW upratings in October 2016 and 2017, and the NLW uprating in April 2017), whereas the single year approach only requires making an assumption about one (the October 2016 NMW uprating).
- Secondly, it allows for a more accurate estimate of the counterfactual. For example, we will know better where the NMW would have been in 2017/18 in a year's time when we appraise the next NLW amendment because we will have an additional ASHE data release.
- Thirdly, the multi-year approach would require assuming that the NLW will not change in April 2017; this is an unrealistic assumption given the 2020 ambition.

This key methodological question is discussed in detail in Annex 4.

Distinction between direct and indirect impacts of the ripple effect

We have appraised the direct impacts of the NLW as the cost of increasing wages below £7.20 to the new statutory minimum (with the associated non-wage labour costs), and that proportion of the costs of the ripple effect up the earnings distribution which is required by collective bargaining or contractual terms.

The ripple effect up the earnings distribution will be a mixture of direct and indirect effects. In general, the decision to raise the wages of those earning above £7.20 in order to maintain pay differentials is at the discretion of employers and is not required by this regulation.

However, we recognise that there may be instances where wage spillovers result from non-discretionary business actions, in which case the impact would be direct. This could arise where pre-existing employment contracts or bargaining agreements with trade unions define the pay of employees according to the wages of other workers. If these workers receive a pay rise from the NLW, employers would have no choice but to pay more to other employees.

Our informal consultation with business groups and the LPC suggests that this sometimes occurs, although they were unable to provide specific data regarding the scale of the effect. Therefore, we estimate the proportion of the ripple effect that is direct using data on the proportion of employees' pay that is affected by a collective agreement.

Trade Union Membership Statistics 2014 show that the pay of 15.4% of private sector employees and 60.7% of public sector employees is affected by collective agreement. We apply these proportions to the private sector and public sector components of the ripple cost to estimate how much of the ripple effect may be non-discretionary because it is covered by a collective agreement. Based on our informal engagement with stakeholders, we believe these are the contracts most likely to be affected in this way.

It is important to separate out the public and private sector effects in this way because (i) only the private sector impact feeds into the EANCB and (ii) there is a significant difference in the prevalence of collective agreements between the two sectors.

We believe that this estimate is likely to be greater than the true proportion of the ripple effect that is direct for two reasons. Firstly, not all collective bargaining agreements will include measures to maintain pay differentials in this way. Secondly, we have consulted informally with the Low Pay Commission - which has commissioners from both businesses and trade unions and consults extensively with stakeholders and academics across the country – and they do not believe that this practise has a significant effect within the labour market.

The LPC is commissioning research that should further develop our evidence base on this question and wider issues regarding the ripple effect¹⁵

¹⁵ <https://www.contractsfinder.service.gov.uk/Notice/be87a80d-3eac-4d0d-a035-44f649ea3d88>

Anticipation effects

Subsequent to the NLW announcement, some firms may pre-empt the April 2016 increase by increasing wages or changing their business model. We have not modelled this effect as there is no robust basis upon which we can form an assumption of the effects' magnitude. Anticipation effects would consist of impacts we have already modelled occurring a few months earlier, so should not make a significant difference to our results. They are a voluntary response by employers ahead of any legal obligation.

A number of retailers, in particular large grocers, have announced pay rises above £7.20 in response to the NLW. It should be noted that many of these preannounced rises, such as that of Morrisons¹⁶, come into effect within days or weeks of the NLW coming into force.

Non-compliance

The Better Regulation Framework Manual (March 2015, 2.3.47-9) recommends that 100% compliance is assumed unless there is evidence to the contrary. Full compliance with the NMW and NLW has been assumed for the core analysis. This is because – although there is evidence of non-compliance with the NMW¹⁷ - we do not have a reliable basis on which to estimate a level of non-compliance for the NLW: the NLW both extends the coverage of the regulation and adjusts its structure, thereby making it a significant break from the current system. Non-compliance is considered below under “indirect impacts”.

Additionally, the Manual (2.3.42) advises that the costs incurred by companies for non-compliance should not be included in the NPV or EANCB. These costs include the penalties non-compliant firms can receive.

Further core assumptions

We have made the assumption that, in absence of the NLW's introduction, earnings for all workers will increase in line with OBR average earnings forecasts. It is important to note that such projections are always uncertain.

We exclude employment effects from the core NPV. We present a quantified assessment of the employment effects below under ‘macroeconomic impacts’, but these are not monetised in the final NPV because the consequences of this unemployment on social welfare are extremely uncertain and depend on a significant number of unknowns. For example, if unemployment is due to productivity increasing, then businesses are likely to be better off, but if it's due to scaling back production due to increasing costs, then they are likely to be worse off. For the individuals effected, the impact will depend on the benefit system and their prospects in the job market. The impact is particularly hard to isolate given the counterfactual of the OBR forecasting an increase in employment of 1.1 million. There is no established guidance on how to monetise employment impacts, and this reflects these challenges.

We have not considered potential displacement effects of possibly making younger workers relatively more attractive than those aged 25 and over. With the current evidence base any

¹⁶ <http://www.retail-week.com/sectors/food/morrisons-pledges-to-pay-all-shopfloor-staff-more-than-osbornes-living-wage/5079540.article>

¹⁷ For example, ASHE indicates that 236,000 employee jobs were paid below the NMW in April 2014, representing 0.9% of all 16+ jobs in the UK.

estimate would be subject to great uncertainty. The LPC commissioned research for their 2013 report that looks at the substitution rate of young workers and adult workers. Lanot and Sousounis (2013) found some evidence that workers aged 18 to 21 years old are complements to workers aged 55 or older. But it also suggested that the changes to the differences in the NMW between age groups since the introduction of the NMW had not affected the composition of the work force. Fidrmuc and Tena (2013) examined the impact of the NMW on employment and hours of young workers. They found some negative employment effects of the NMW for young men, a year before they became entitled to the adult rate¹⁸.

Some employers do not differentiate pay by age and will pay all workers the new NLW rather than just those aged 25 and above. This effect has not been incorporated due to a lack of evidence on which to make appropriate assumptions.

Both of these impacts on those aged under 25 are discussed in more detail below.

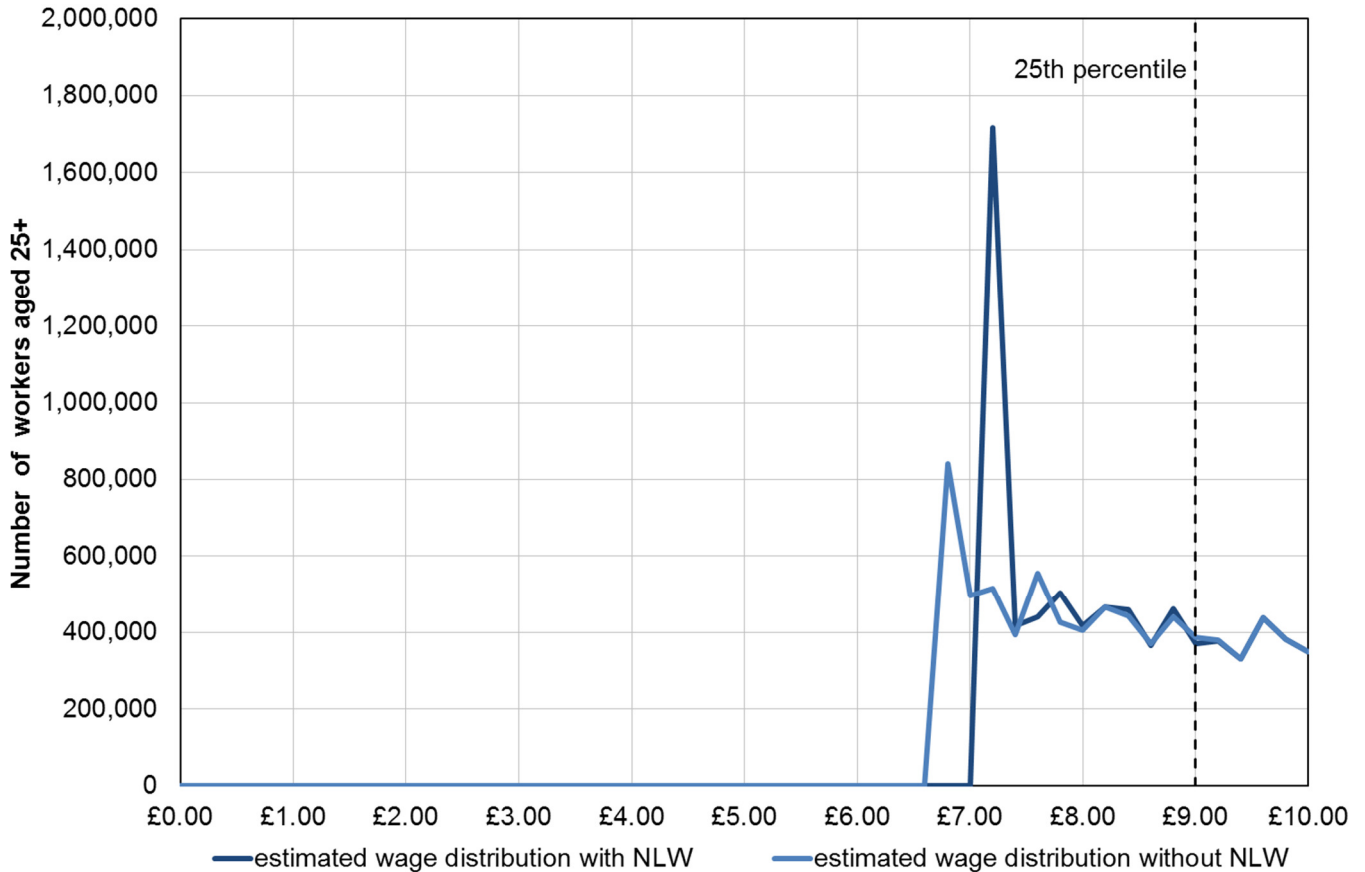
¹⁸ National Minimum Wage Low Pay Commission report 2013 page 91

Direct impacts

Coverage and beneficiaries

Our analysis leads us to expect approximately 1.74 million workers to be covered by the NLW in 2016; that is, approximately 1.74 million workers will be paid £7.20.

Chart 4: Estimated wage distribution in 2016, with and without NLW introduction



Source: BIS analysis of the Annual Survey of Hours and Earnings 2014, ONS

We find that the NLW will increase the total number of workers covered by a minimum wage by roughly 450,000. We anticipate that 1.28 million workers formerly on the NMW adult rate will move to the NLW and 450,000 workers previously earning above £6.70 will see their pay brought up to £7.20, with approximately 4.2 million additional workers seeing indirect pay rises through the ripple effect.

This means that a total of almost 6 million workers will benefit.

Table 2: Coverage estimates for NMW and NLW rates, 2016

Rate	Without NLW	With NLW
NLW (25+)	-	1,740,000
Adult (21+, 21-24)	1,480,000	200,000
Development (18-20)	110,000	110,000
Youth (16-17)	30,000	30,000
Total	1,620,000	2,080,000

Source: Low Pay Commission, National Minimum Wage Report 2015; BIS analysis of the Annual Survey of Hours and Earnings 2014, ONS. NLW estimates are for 2016Q4. Totals may not match due to rounding.

Direct benefit to employees and cost to business

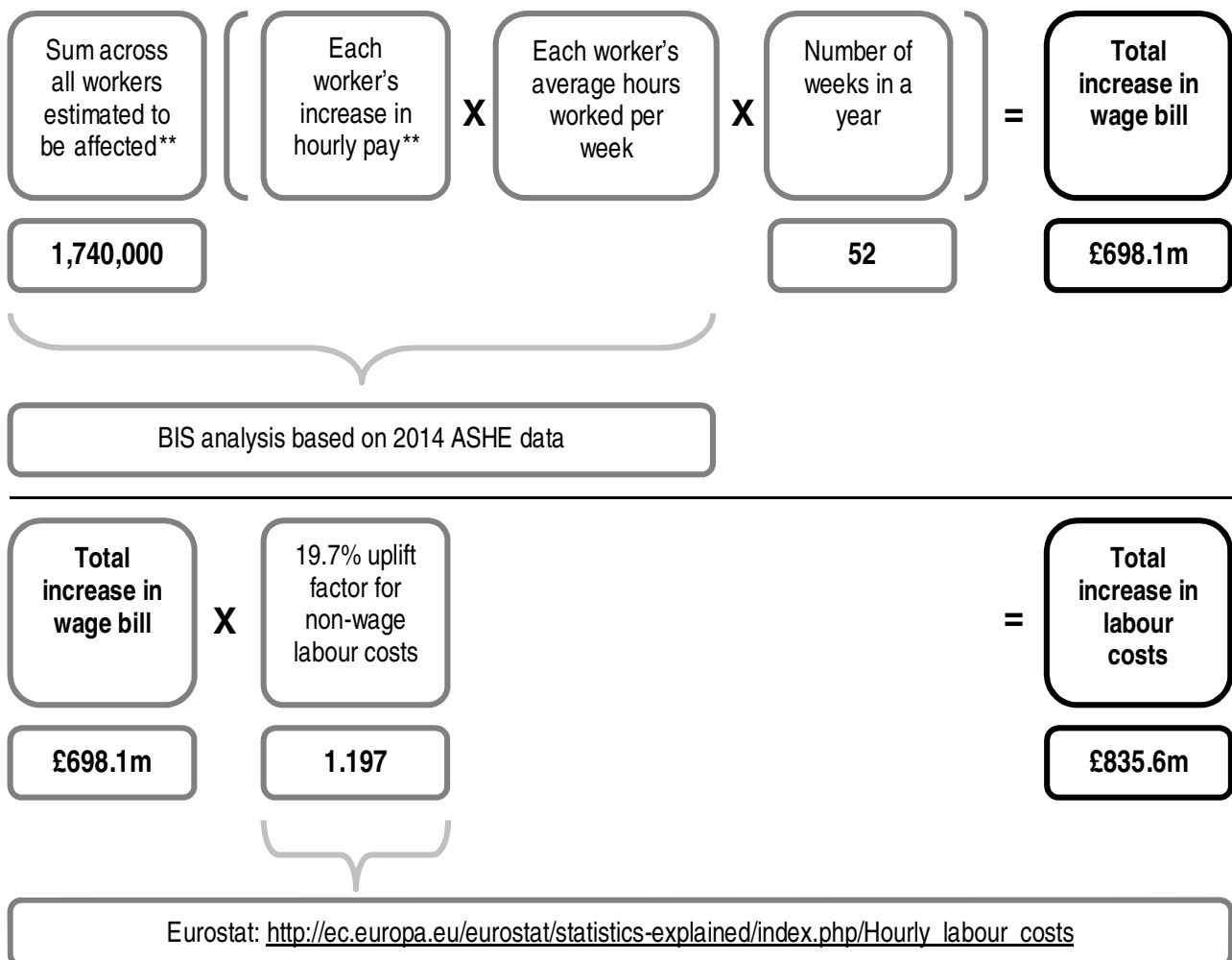
The proposed introduction of a NLW rate at £7.20 will represent an increase in the minimum wage of 7.5% for those aged 25 and above, compared to the current adult NMW rate of £6.70.

The total estimated direct cost impact of the NLW introduction is an increase in labour costs of £835.6m for all employers (in 2015/16 prices). This is broken down into increased wages of £698.1m and increased non-wage labour costs of £137.5m. This is the cost of increasing workers' pay to meet the new £7.20 minimum.

This is appraised as a transfer from businesses to employees and the exchequer. Adult employees benefit from increased wages (£698.1m); employees and the exchequer benefit from pension contributions and NIC contributions totalling £137.5m.

Repeating the calculation only for private sector workers yields an estimate of total direct cost to business of £804.4m: £672m of wage costs and £132.4m of non-wage labour costs.

Figure 2: Estimated increase in direct labour costs from introduction of NLW at £7.20 (figures have been rounded*)



Source: BIS calculations.

* Individual parts may not sum to total due to rounding.

** Based on methodology outlined above, assuming all earn at least NMW, and including the spillover effect.

Transition costs

The methodology section outlined that this IA will estimate two one-off transition costs of introducing the NLW - (i) businesses familiarising themselves with the new regulation and (ii) updating the pay of employees to implement the measure.

Familiarisation costs

We estimate the familiarisation cost by multiplying the median gross hourly pay of managers, directors and senior officials (£19.27 according to ASHE 2014, £23.07 after uplifting by 19.7% to account for pensions and NICs) by our estimate that it would take 30 minutes to familiarise with this simple regulatory change - that those aged 25 and above need to be paid at least £7.20 as of April 2016 (there is only 9 pages of guidance relating to the NLW on gov.uk¹⁹). This is then applied to the population of employers in the UK - 1.4 million according to the 2015 Business Population Estimates.

We produce a range of estimates to reflect the uncertainty surrounding this approach.

- **High estimate - £16.2m.** We assume that every employer in the UK familiarises themselves with the guidance. I.e. 100% of the 1.4 million employers.
- **Low estimate - £1.8m.** We assume only those employers that will have to pay workers the new NLW will familiarise themselves with the guidance (based on the assumption that the proportion of all employees in the UK on the NLW is the same as the proportion of all employers in the UK that will employ a NLW employee – i.e. 7.26% of the 1.4 million employers).
- **Best estimate - £12.1m.** We assume that three quarters of employees familiarise themselves with the guidance. Not every employer will read the guidance because some will know immediately that they do not employ workers at or below £7.20 per hour, without needing to read the guidance. They will derive this information from the extensive media coverage of the NLW since its announcement in the Summer Budget and the forthcoming Government communications campaign that will raise the profile of the NLW and help employers prepare for its introduction. This campaign will be larger and begin earlier than the campaigns for NMW upratings. We assume that a quarter of employers will not need to read the guidance because of this. This is a reasonable assumption because survey evidence indicates that currently 26% of employers are aware that the NLW will require workers aged 25 and over to be paid £7.20 – based purely on the media coverage and before the communications campaign begins²⁰. We would expect this to increase given the possible impact of the communications campaign and further media coverage of the NLW.

Implementation costs

The implementation cost of the NLW is the cost of one-off updating in April 2016 the pay of employees impacted by the introduction of the NLW. We model this as the time taken for an administrator to adjust the employee's hourly wage accordingly. We model this as a manual activity for each employee impacted.

¹⁹ <https://www.gov.uk/government/publications/national-living-wage-nlw/national-living-wage-nlw> and the pay and work rights guidance for employers <https://www.gov.uk/government/publications/pay-and-work-rights-guidance-for-employers>

²⁰ Survey of 1000 employers across the UK carried out for BIS by Censuswide in November 2015.

Our best estimate of the time taken to update the payroll record of a single employee is 30 minutes. This is based on the CEBR-Federation of Small Businesses Employment Costs Index (September 2014) estimate that the 'average' small business of six employees spends 0.5 days of an administrator's time per month processing payroll²¹. This equates to 40 minutes per employee. This includes other activities beyond adjusting pay such as updating personal information, adding new employees etc., so we revise down the time taken to update the payroll record to 30 minutes.

We appreciate that this is an uncertain estimate, so to capture this uncertainty, we replicate the estimate based on one hour per employee.

The median hourly wage of administrative occupations in ASHE 2014 is £10.34 (£12.37 after uplifting to account for pensions and NI contributions). We multiply this by our estimates of the length of time taken to update an individual payroll record and then by the number of employees covered by the NLW. In this way, we estimate that the implementation cost is £10.5m according to our best estimate of 30 minutes or £20.9m according to our high estimate of one hour.

Our approach produces highly cautious upper bound estimates of the implementation cost. Faced with the need to update multiple payroll records, businesses can update each one manually, or they can update multiple records simultaneously based on payroll software. Payroll software will often be capable of this already, enabling dramatic efficiency savings.

If we assume that businesses will seek to implement the change in the most cost-effective way possible, we can conclude that the maximum cost to businesses will be the cost of updating each record manually – if a software update is free or cheaper, they would pursue this, but if it costs more than manually updating, they would update the records manually.

Therefore, our estimate is an upper bound because it is based on the payroll records of every single employee being updated manually. In reality, the implementation costs are likely to be significantly lower.

Other impacts

Ripple effect

As outlined above, we apply a spillover effect that is consistent with evidence from the LPC and PwC as well as with the OBR methodology. We find that the spillover effect will increase the wage bill for those workers earning from £7.20 up to the 25th percentile by £234.3m (in 2015/16 prices). This results in an increase in labour costs of £280.5m across the whole economy when non-wage labour costs are taken into account. We estimate approximately 4.2 million workers are impacted by this ripple effect. This is an estimate based on the best available evidence; the scale of this effect could transpire to be greater or smaller.

The ripple effect is partly direct and partly indirect. As outlined in the methodology section above, we take a cautious estimate of the share of the ripple effect that is direct based on Trade Union Membership Statistics data. We assume that 15.4% of the private sector ripple is direct

²¹ This is based on survey data from the FSB's Voice of Small Business Index, June 2011 (p45)

and that 60.7% of the public sector ripple is direct. On this basis, we estimate that £59.5m of the ripple effect will be direct impact and the remaining £221m is indirect. The direct cost to business from the ripple effect is £37.7m²².

As outlined above, this is likely to be an overestimate of the proportion of the ripple effect that is non-discretionary.

Total costs/benefits

The total estimated cost is £1,138.7m. This consists of £835.6m direct labour cost, £280.5m ripple effect, and £22.6m transition costs.

The EANCB is £820.97m. This is based on the business component of the £22.6m transition costs (94% of coverage is private sector), the £804.4m direct total labour cost to businesses (wage and non-wage), and non-discretionary, private sector component of the ripple effect, £37.7m. The EANCB is calculated using the IA calculator and is in 2014 prices, 2015 present value. Annex 3 provides a summary table for the total NPV estimates.

Macroeconomic impacts

The introduction of the NLW may impact employment. When faced with increased labour costs, businesses can react in a number of ways: by reducing profits to pay for the wages, by reducing the number of hours worked, by restructuring their workforce and potentially reducing jobs, by increasing prices, by increasing the productivity of their workers, or by substituting for younger workers aged less than 25.

In reality businesses will adjust along all of the above margins to greater and lesser extents. Our analysis - following the same methodology as the OBR, as summarised above (p.14) - estimates that, as a result of the NLW, in 2016:

- The average earnings growth forecast will be 0.1 percentage points higher (this average is a mean).
- The forecast change in average hours worked will be 0.03 percentage points lower.
- The forecast structural unemployment rate will be 0.03 percentage points higher – equivalent to just below 9,000 jobs.
- The forecast rate of inflation will be 0.03 percentage points higher.
- The hourly productivity forecast will be 0.05 percentage points higher.

As the NLW increases toward its 2020 target of 60% of median earnings, it is likely that the potential macroeconomic impacts will increase. The OBR has assessed the impact in 2020 of a NLW set at 60% of median earnings²³. The OBR estimates that:

- The average earnings growth forecast will be 0.4 percentage points higher.
- The forecast change in average hours worked will be 0.2 percentage points lower.
- The forecast structural unemployment rate will be 0.2 percentage points higher – equivalent to about 60,000 jobs.
- The forecast rate of inflation will be 0.1 percentage points higher.
- The hourly productivity forecast will be 0.3 percentage points higher.

²² The ripple effect is split 12.8% public sector and 87.2% private sector. The non-discretionary private sector share is therefore 15.4% * 87.2%
* total ripple (£280.5) = £37.7m

²³ OBR, Economic and fiscal outlook – July 2015

It is important to recognise that these are estimates of structural changes to the economy as the NLW is a structural reform to the labour market. In the shorter term, the impact of any one year's NLW increase may have macroeconomic implications beyond the year in question. For example, it might take more than a year for productivity growth in the counterfactual to push productivity to the same level as we expect with the NLW increase. These impacts are notable and should be considered when discussing future increases in the NLW and the choice of the appropriate counterfactual, which we will review with future changes to the NLW. However, it is likely that monetising any such impacts will continue to be extremely challenging for the methodological reasons set out above (p.14) and other policy / external changes to the economy.

To further encourage employers to invest in increasing productivity, the Government has launched its 15 point productivity plan, Fixing the Foundations²⁴. This plan commits the government to concerted action, covering every major government department. This ranges from making the tax system even more competitive, investing in apprenticeships through the apprenticeship levy, to devolving powers for a rebalanced economy.

Delivering a return to productivity growth is one of the key challenges for this Parliament, and the route to raising living standards for everyone in the UK. There is some indicative evidence that the NMW is associated with an increase in productivity. As outlined by the LPC²⁵, Galinda-Rueda and Pereira (2004) using plant level data; Forth and O'Mahony (2003) using industry data; Machin, Manning and Rahman (2003) using care home data; and Draca, Machin and Van Reenen (2005) and Croucher and Rizov (2011) using company account data from Financial Analysis Made Easy (FAME) all found evidence of a positive association of the minimum wage with productivity. However, in contrast, Forth, Harris, Rincon-Aznar and Robinson (2009) and Georgiadis (2006) found no such effects.

It is important to note that the productivity impact modelled above is at the macroeconomic level rather than an increase in the productivity of individuals or firms as just considered. The result stems from a compositional, or 'batting average' effect whereby the reduction in hours worked occurs for lower productivity labour, thus raising the average productivity of the rest of the work force.

Fiscal impacts

The same OBR study also provides an estimate of the fiscal impact of the NLW, including for the financial year 2016-17. The OBR estimates that public sector net borrowing will be unchanged as a result of the NLW: while expenditure on tax credits and housing benefit are estimated to fall by £200m, the increase in the welfare bill and the impact of inflation on upratings and debt interest are estimated to counteract this.

These fiscal impacts have not been included in the NPV because the OBR recognises that its estimates of fiscal impacts are subject to significant uncertainty, complexity, and sensitivities. However, this does not have a material impact on the analysis because of the estimated neutrality of the fiscal impact.

²⁴ HM Treasury, Fixing the foundations: Creating a more prosperous nation

²⁵ Low Pay Commission Report 2015

Potential impacts on younger workers

The new pay floor for workers aged 25 and over may have indirect impacts on younger workers. Firstly, their employment opportunities could be impacted: on the one hand, younger workers become relatively cheaper and so more attractive to employers; but on the other hand, there is evidence to suggest that higher pay floors reduce the likelihood of employees leaving their jobs²⁶.

Secondly, anecdotally, some employers do not differentiate wages according to age and so they might be expected to pay all their employees the NLW, even those aged under 25. For example, Starbucks and Costa Coffee have both announced such policies with respect to the NLW²⁷. Analysis of the ASHE finds that 6% of those aged 18 to 20 were paid the adult NMW in 2014²⁸ - this is compared to 8% receiving the youth rate, a greater proportion.

We have not quantified these effects for two methodological reasons:

- Firstly, extrapolating from such evidence would be challenging because the age group of particular focus – those aged 21 to 24 – is different in labour market dynamics to those aged under 21 (see above discussion of employment prospects for different age groups).
- Secondly, the practise of not differentiating pay by age is itself endogenous to this policy change for two reasons: (i) the 7.5% increase in the pay floor could significantly increase the costs of adopting such a policy; and (ii) the NLW creates a new rate which could act as a possible focal point, rather than simply replacing the existing anchor of the adult NMW. We do not know to what extent employers may use each of the rates and other focal points to set wages. For example, to what extent the new NLW might override the anchoring effect of the established adult NMW for younger workers. These two factors could also impact the likelihood of employers substituting towards workers aged under 25.

In recognition of these uncertainties, the LPC is commissioning research that will investigate - after the introduction of the NLW - to what extent employers paid those aged 21 to 24 the NLW and whether employers began substituting their older workforces with cheaper, younger workers²⁹. This in addition to the LPC's remit to monitor the impact of the NLW.

This research will also build our evidence base around anticipation effects, the spillover effect, non-wage impacts, and differences in impact by sector, firm size, and region.

Potential increases in non-compliance

A broad base of analysis suggests that non-compliance is mostly through mistake, not malice. Analysis of ASHE indicates that 236,000 employee jobs were paid below the NMW in April 2014, representing 0.9% of all 16+ jobs in the UK.

²⁶ Dube et al (2014) 'Minimum wage shocks, employment flows and labour market frictions'. Analysis of US data for 2000-9 that finds that an increase in the minimum wage reduces employment turnover rates but not the overall level of employment.

²⁷ <http://www.itv.com/news/2015-09-25/starbucks-staff-set-for-pay-rise-after-chain-agrees-to-extend-national-living-wage-to-all-employees/>
<http://www.telegraph.co.uk/finance/newsbysector/retailandconsumer/leisure/11901915/Costa-coffee-prices-wont-rise-despite-staff-wage-hike.html>

²⁸ Low Pay Commission Report 2015, Figure 3.10

²⁹ <https://www.contractsfinder.service.gov.uk/Notice/be87a80d-3eac-4d0d-a035-44f649ea3d88>

It is possible that the NLW will increase the incidence of non-compliance for two reasons. Firstly, it will extend coverage of the statutory wage floor and so create a larger number of instances where non-compliance could occur. Secondly, it adds complexity to the system with an additional rate. However, these effects are highly uncertain because the NLW represents a significant break from the old NMW system for precisely these reasons.

However, it should be noted that on the 1st September, the Government announced a package of measures to strengthen the enforcement of the minimum wage. These include:

- Increasing penalties from 100% to 200% of the arrears employers owe. The penalty is reduced by half if employers pay within 14 days;
- Setting up a dedicated team in HMRC focused on tackling the most serious cases of wilful non-compliance;
- Increasing the enforcement budget in preparation for the NMW and NLW from April 2016.
- The creation of a statutory Director of Labour Market Enforcement and Exploitation, who will set a single set of priorities for the enforcement bodies across the spectrum of non-compliance;
- A continued commitment to respond to every complaint made by a worker and will provide anonymity where requested;
- Improvements to the guidance and support available to all firms and work with payroll providers to embed checks within payroll software.

Further considerations

Small and micro business assessment

Impact on small and micro businesses

Table 3 presents estimates of the coverage of the NLW across different sized businesses. While we estimate that over half of all those covered by the NLW in 2016 will be employed in large businesses, there will be disproportionately large rates of coverage for small and micro businesses; for example, we estimate that 16% of employees of micro businesses will be covered compared to 6% of employees of large businesses.

Table 3: Estimated NLW coverage, split by business size

Number of employees in business	Number covered by NLW	Percentage of all employees covered by NLW	Employees covered as % total employees by business size	Additional coverage compared to NMW 2016 Q4 (as % of total workers)
Micro (0-9)	270,000	15.7%	16.2%	3.5%
Small (10-49)	290,000	17.1%	9.7%	2.5%
Medium (50-249)	260,000	15.1%	7.9%	2.0%
Large (250+)	880,000	52.1%	5.8%	1.7%

Table 3 also illustrates how small and micro businesses will see a greater impact on additional coverage; i.e. that the introduction of the NLW will bring a greater proportion of workers aged 25 and over onto a statutory pay floor for small and micro businesses than for medium and large businesses.

Table 4 provides our estimate of how the cost to businesses will be distributed between firms of differing sizes. Small and micro businesses will account for approximately 33% of the cost impact. This is proportionate to the share of NLW coverage accounted for by small and micro businesses – 32.8%.

Table 4: Distribution of NLW costs, split by firm size

Number of employees in business	Share of direct cost to business	Total cost (direct + ripple)
Small and micro (0-49)	33%	£346.6m
Medium (45-259)	17%	£181.3m
Large (250+)	50%	£521.1m

Note: Total cost is the direct cost of increasing wages to the new pay floor and the ripple effect up the earnings distribution. The costs of the ripple effect are estimated by applying the share of direct costs to the private sector share of the ripple effect.

It would be inappropriate to estimate the cost for the average small/micro business because they differ greatly in many ways, including whether and how many of their employees would be affected by the change. However, an indicative calculation derived from dividing the direct employment cost by the direct coverage of the NLW gives an estimate of a £480 increase in employment costs per “average” employee.

The possibility of exempting small and micro businesses

Small and micro businesses are not exempt from the NLW. This is appropriate for both equity and economic reasons.

An exemption would undermine the equity objectives of the policy. We estimate that 560,000 employees covered by the NLW would be employed by such businesses – 32.8% of the total. Given that they account for such a large number of the lowest paid workers, an exemption would significantly undermine the ability of the NLW to raise the earnings of the lowest paid across the UK and thereby enable them to receive a greater share of the gains from growth.

There are also economic reasons against an exemption. Exempting small and micro businesses would enable them to avoid the increase in labour costs associated with raising the wages of the lowest paid. This would create economic inefficiencies through two effects. Firstly, it would create a distortion in the market by distorting cost-competitiveness at the expense of medium and large businesses. This would undermine competition. Secondly, it would create a disincentive for businesses to grow – if they were to expand sufficiently to be classified as a medium sized business, they would be obliged to raise wages for all their employees to meet the NLW, thereby introducing a significant cost of expansion at the threshold between small and medium sized businesses. These effects are particularly acute for the NLW because labour costs are generally one of the main costs faced by businesses.

Measures to mitigate the cost impact on business

The NLW was announced as part of a package of measures. These include steps to mitigate the cost impact on business:

- The increase in the Employer Allowance from £2000 to £3000 will benefit up to 590,000 employers and mean that a business will be able to employ up to four people full time on the NLW without paying National Insurance Contributions.
- The cut in corporation tax from 20% to 18% by the end of the Parliament will benefit over a million firms, save businesses £6.6bn by 2021, and give the UK the lowest rate of corporation tax in the G20.
- The Annual Investment Allowance will be set at £200,000 to reduce the cost of investment.
- Funding from the apprentice levy will be put in the hands of employers to support training. This will improve worker productivity.

Additionally, the Government will undertake a communications campaign designed to help employers with guidance and how to comply with the regulatory requirements. This will be larger and begin earlier than previous communications campaigns ahead of NMW upratings.

The communications campaign will help small and micro businesses in particular. This is because it will be focused on the low pay sectors that will be most impacted by the NLW. Small and micro businesses tend to have a greater presence in low pay sectors such as retail and hairdressing. Across the economy, 21.3% of employees work in small and micro businesses, but this increases to 27% of employees when focusing on low pay sectors only³⁰. This means that the communications campaign – by focusing on low pay sectors – will have a particular benefit for small and micro businesses.

Equalities impact

Section 149 of the Equality Act 2010 requires BIS to have due regard to the need for due regard to promoting equality of opportunity, eliminating discrimination, and fostering good relations between groups. The impact of the NLW on equalities considerations is considered in full in Annex 1.

Sector impact

Low-pay sectors will be impacted disproportionately by the NLW. Annex 2 provides a detailed estimate of the coverage of the NLW for a range of low-pay sectors such as social care, retail, and agriculture.

Of the workers aged 25 and over in these sectors, it is estimated that a significant proportion would move from being paid above the NMW to being paid the NLW. For example, 8% of the cleaning and hospitality sectors, compared to 0.5% of the non-low pay sector economy.

We acknowledge that these sectors are particularly sensitive to the impact of the NLW. Our estimate of the employment impacts presented above captures this sensitivity: the modelling combines disaggregated ASHE analysis with macroeconomic approaches, and it was tested at different levels of disaggregation, including at sector level, without significant changes to the

³⁰ Annual Survey of Hours and Earnings. Based on LPC definition of low pay sectors, as used for sector impact section and Annex 2.

results. The LPC will examine these impacts in close detail when it makes its recommendation for future changes to the NLW premium and the NMW.

As outlined above, the Government is taking steps to mitigate the impact on business.

Comparison of options

The policy objectives against which the options are assessed are:

- Raise the earnings of the lowest paid;
- Move from a low wage, high tax, high welfare society to a higher wage, lower tax, lower welfare society;
- Increase the incentive to work.

Option 1 does more than Option 0 against all three objectives. Firstly, increasing the statutory wage floor increases the earnings of the lowest paid and provides an additional incentive to work, compared to doing nothing. We estimate that the coverage of the NLW will be 1.7 million workers and an additional 4.2 million will benefit from the ripple effect, and that a full-time worker on the current NMW of £6.70 will earn £910 more under the NLW – providing a significant increase in the incentive to work. Finally, NLW raises wages and so plays a key role in the package of measures announced in the Budget to raise wages, lower taxes and lower welfare.

Consequently, introducing the National Living Wage is the preferred option.

Implementation

The NLW will be mandatory and introduced into law through amendment to the National Minimum Wage Regulations 2015. It will come into force from 6 April 2016.

The adult NMW rate is currently £6.70. From April 2016 the NLW will come into effect, setting a minimum of £7.20 per hour for workers aged 25 and over. The NMW will continue to apply to those aged between 21 and 24. The other NMW rates will continue as they have done previously and will also be recommended by the independent LPC. The wages of younger workers will continue to be underpinned by the core NMW.

Apprentices aged 16 to 18 and those aged 19 or over who are in their first year of an apprenticeship will continue to receive the Apprentice NMW at the new rate. Apprentices aged 19 to 24 in their second or subsequent years will receive the age-related rate of NMW. Those apprentices aged 25 and over, in the second year of an apprenticeship will be paid the NLW.

Monitoring and evaluation

In making its recommendations for all NMW rates (including the NLW rate), the LPC will continue to provide independent advice. This will include consideration of the pace of the increases, monitoring the state of the economy, employment and unemployment levels and relevant policy changes and evaluating their relation to the NLW and other NMW rates. This

advice will continue to include the potential for further rate increases, or outline constraints to specific areas in relation to low-pay. The Government's stated ambition will not require a change to the LPC's terms of reference, or the National Minimum Wage Act 1998.

Annex 1: Specific Impact tests

Competition assessment

The NLW provides a floor for wages and therefore ensures that firms cannot compete against each other by driving down wages to unacceptable low rates. The LPC lists the low paying sectors with the greatest proportions of workers in low pay, with some of the largest being hairdressing, social care and retail. Most of the sectors where the impact of the NLW will likely be felt are characterised by large numbers of relatively small firms. To the extent that the NLW affects labour costs, these are borne by all employers in a sector.

The NLW is unlikely to hinder the ability and incentive for businesses to compete; and unlikely that the NLW creates significant barriers to entry.

Public sector equality duty

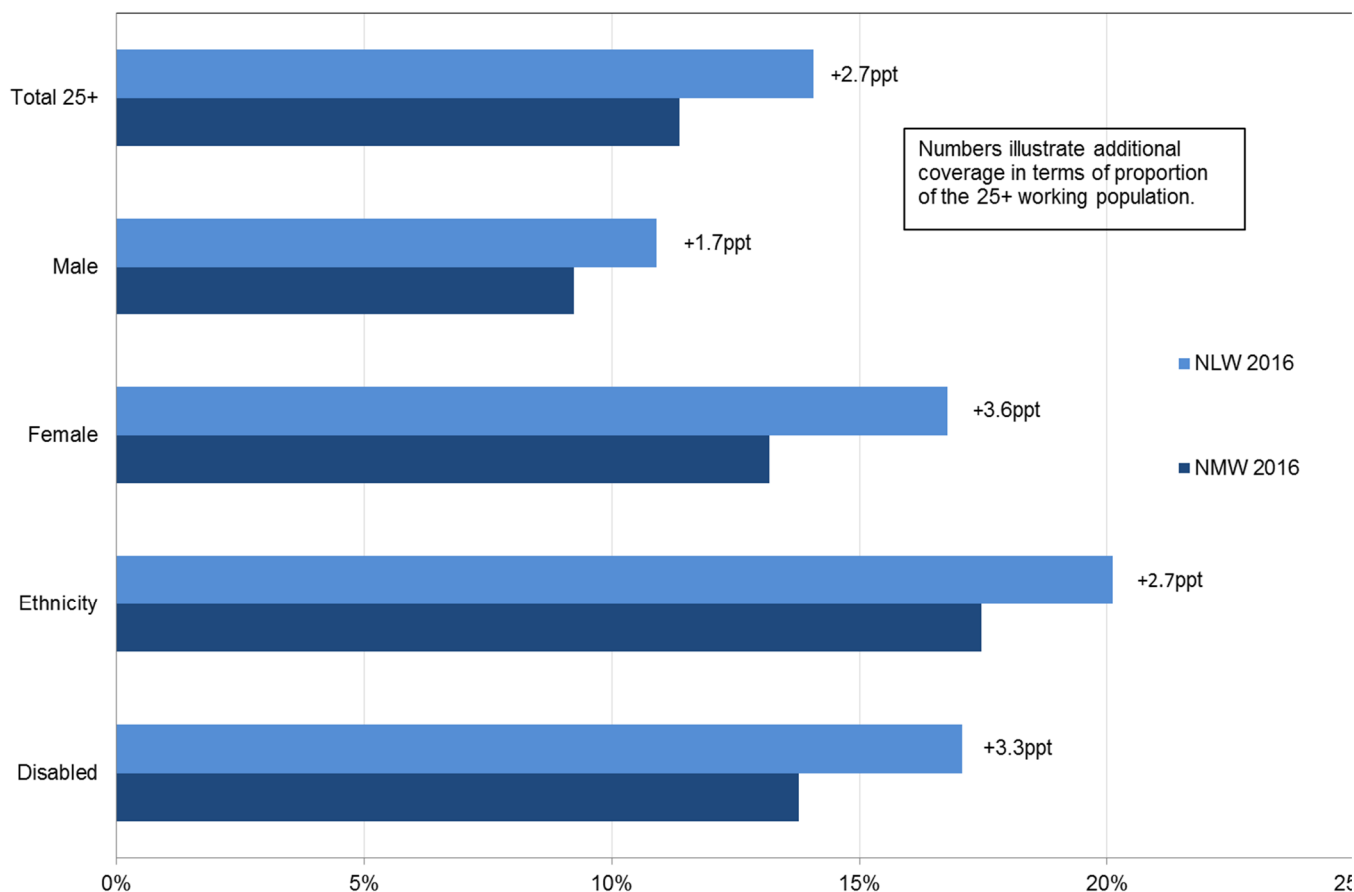
Equality Analysis

The Department of Business, Innovation and Skills (BIS) is required to comply with the public sector duty (PSED) set out in the Equality Act 2010 (“the Act”). The PSED requires the Minister to have due regard to the need to advance equality of opportunity, hinder discrimination and foster good relations between those with and without certain protected characteristics, which are set out later in this annex. This due regard is taken to eliminate unlawful discrimination and to tackle prejudice and promote understanding.

The NLW will have national universal coverage for workers aged 25 and over working in all sectors and regions. Legally all employers will have to pay at least this minimum rate regardless of other social characteristics such as gender, ethnicity or disability. The simple and established minimum wage system will be maintained, with the addition of the NLW with a wider coverage.

Chart A1 gives a comparison of estimated NLW to NMW coverage across a range of groups. This comparison estimates the additional coverage the NLW will provide in 2016. It is important to note that although ASHE, a large survey focusing on pay, provides much more accurate data on earnings than the Labour Force Survey (LFS) it does not provide the range of respondent’s characteristics that LFS does – e.g. disability and ethnicity.

Chart A1: Proportion of workers paid at or below minimum wage thresholds



Source: BIS analysis of Labour Force Survey Q2 2015; snapshot for 2016Q4

This graph shows that a greater proportion of workers that are disproportionately concentrated in minimum wage jobs will be covered by the NLW, raising the pay of the lowest paid. A greater number of workers will receive a higher wage of £7.20 as their minimum hourly pay. Female workers benefit the most, with an 3.6 percentage point increase in coverage compared the counterfactual NMW.

Gender

Table A1: Estimated NLW coverage in 2016, split by Gender

Gender	Number covered by NLW	Percentage of all covered by NLW	Percentage of gender covered
Male	630,000	36.2%	5.3%
Female	1,120,000	63.8%	9.4%

Source: BIS analysis of the Annual Survey of Hours and Earnings 2014, ONS

Our analysis in table A1 shows the direct coverage of the NLW in 2016 for those 25 and over, split by gender. This shows that a higher proportion of women than men will be affected by the NLW in 2016; over 3 in 5 (64%) of all covered are women, with 9.4% of all female employees being covered by the rate compared to 5.3% of male employees. This disparity is largely due to women being more likely to work in low-paid roles and to work part time.

Further supporting analysis conducted by the Resolution Foundation, which includes spillover effects, shows women benefit more from the NLW than men do; 62% to 38% of men as a percentage of all 25s and over affected in 2016. They conclude that the distributional gains from the NLW will lead to a “modest narrowing” of the gender pay gap over the coming years³¹.

Age

Table A2: Estimated NLW coverage in 2016, split by Age

Age group	Number covered by NLW	Percentage of all covered by NLW	Percentage of age group covered
25-34	550,000	31.5%	8.7%
35-49	650,000	37.1%	6.5%
50+	550,000	31.3%	7.3%

Source: BIS analysis of the Annual Survey of Hours and Earnings 2014, ONS

Workers aged 25-34 are the most likely to be covered by the NLW in 2016, as shown in table A3, with 8.7% of this age group expected to be covered. Older workers aged 50+ are more likely to be covered by the NLW than those aged 35-49, though they are a smaller group in total.

Analysis conducted by the Resolution Foundation observed that the age group 25-30 in particular were set to benefit the most from this policy, as a greater proportion of people in this age bracket work full time. With the Resolution Foundation estimating that this age group will make up 22% of employees affected, they are set to receive the highest cash gains of £400 in 2016. However bite levels for this age group are higher than for older workers.

The Resolution Foundation find that the effects of the NLW are also widespread for those 66 and over. 1-in-3 workers can expect to see some pay rise in 2016; though many of these workers work part-time so will receive a lower share of the cash gains.

The National Minimum Wage Act 1998 only allows different rates for different age groups below the age of 26.³² Other age-related wage rates also exist in the current minimum wage structure.

We modelled indirect spillover effects up to the 25th percentile of the wage distribution. OBR estimate a further 3.25m will benefit from these spillovers as employers maintain pay differentials between workers by 2020. Although those under 25 will not directly benefit, workers could still see their wages increase. They could also see greater employment opportunities through a restructuring of the workforce. These effects are discussed in the Indirect Impacts section above.

The LPC identified that a higher proportion of young workers and older workers are minimum wage workers. They noted in their 2015 report that there was an increase in the proportion of 18-20 year olds paid below or at (including those paid up to five pence above) their age related NMW rate. It is also possible that some of those paid below the age-related rates were paid at the Apprentice Rate or paid at focal points about the Apprentice Rate but below the youth rates. Research found that non-compliance was more prevalent among part-time employment and shift workers, which may also disproportionately affect young people.

³¹ Resolution Foundation 'Higher Grounds: who gains from the National Living Wage' page 21

³² With the exception of persons participating in schemes or attending courses as described in section 3(1A).

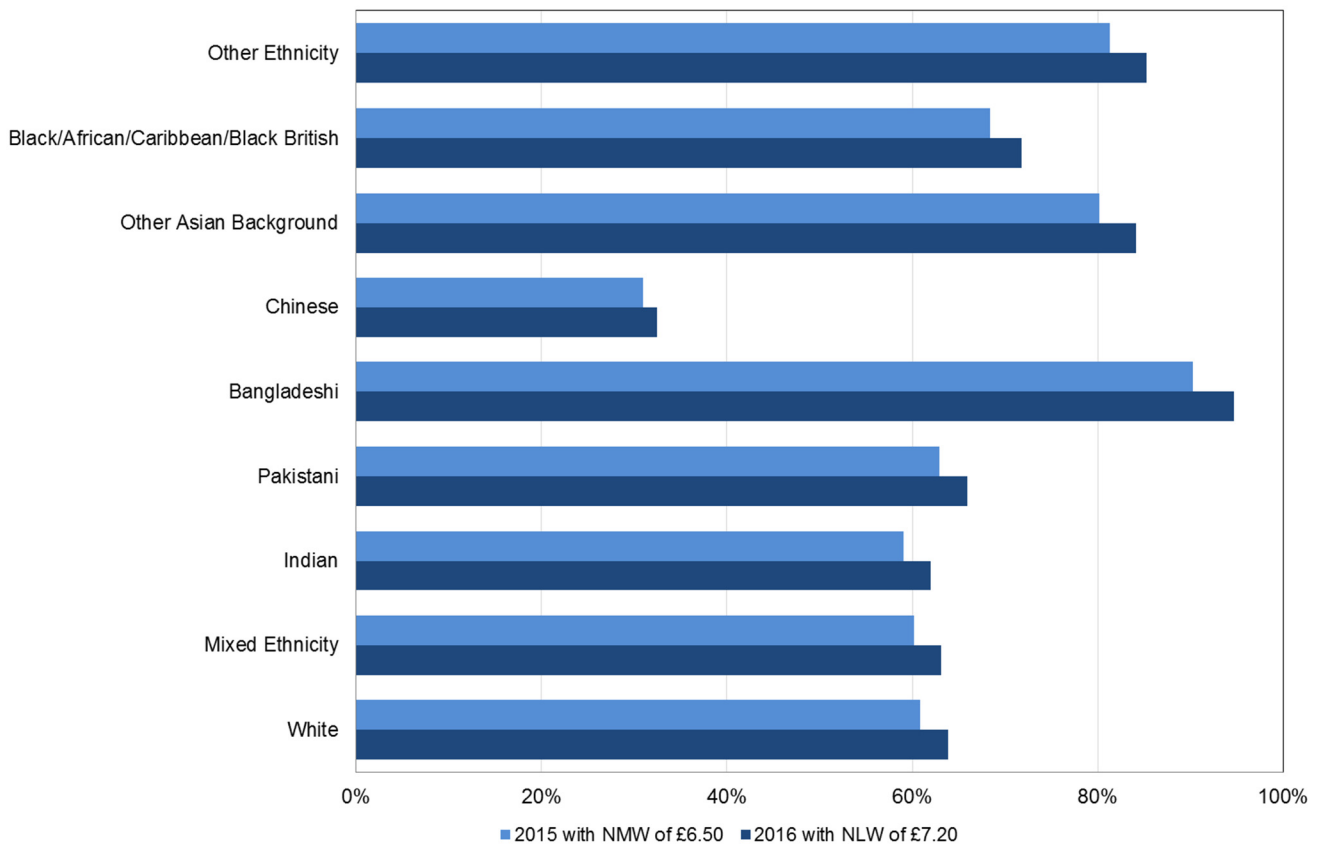
Ethnicity

The NLW is a universal policy which covers all ethnicities equally. However bite levels and coverage estimates vary between ethnic groups.

The proportion of workers of ethnic minorities expected to be covered by the NLW, shown in Chart A1, are higher, at 20%, than for all workers aged 25 and over (14% according to LFS, just over half that according to ASHE). It is important to remember that the aggregation of these figures mask the variability within this group, which is made up of many diverse ethnicities.

Analysis of the LFS shows that Black, African, Caribbean and Black British workers account for 3.8% of all individuals covered by the NLW, making the group the largest non-white ethnicity covered. In comparison, Indian and Chinese workers account for 2.8% and 0.7% of total NLW coverage respectively.

Chart A2: Estimated Bite Comparisons of the NMW and NLW at the median for those aged 25+, by groups of workers, UK



Source: BIS analysis of LFS Q2 2015. The estimates for bites are higher using LFS compared to ASHE.

Chart A2 uses LFS data to compare the bites of the adult NMW in 2015 to bite estimates for the NLW in 2016 for different ethnic groups. It shows they are expected to have higher bites after the introduction of the NLW in 2016. This means that the NLW will push wages higher for all ethnicities towards the median rate of pay. The bite for both minimum wage rates was highest for Bangladeshi workers, at 90% and 95% respectively. Other ethnicities also with high bites were those from other Asian backgrounds and other ethnicities, each with bites over 80%.

Disability

Chart A1 shows that the proportion of workers with disabilities that are eligible to be paid at or below the NLW is 17.1%.

Disabled workers are expected to have a higher bite on the NLW in 2016 of 76%; 4 percentage points higher than their bite on the NMW in 2015, pushing their wages closer to median earnings

Promoting equality of opportunity

The PSED requires the Department to have due regard to the need to advance equality of opportunity between people who share a protected characteristic and those who do not.

The NMW policy framework has been successful since its introduction in April 1999, providing protection for low-paid workers. The NLW will be introduced into the current NMW framework as a premium top-up for those aged 25 and over. This policy is designed to have a positive impact on all workers in low paid sectors regardless of their characteristics.

The NLW is expected to protect the equality of opportunity for those aged under 25. While their opportunity may be impacted by not receiving the new statutory pay floor, this is balanced by (i) protecting the employment prospects of younger workers given their tougher labour market conditions and the importance of developing skills and experience, and (ii) possibly improving the attractiveness of younger workers for employers. These effects are discussed above.

Eliminating discrimination and other prohibited conduct

The PSED requires BIS to have due regard to the need to eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act. The design of the NLW reflects provisions in the Act allowing the rates to vary up to age 25. Potential risk of a substitution towards recruitment of workers under the age of 25 could be seen. However businesses can react to increased wage costs in a number of ways: reducing hours worked, restructuring work forces and pay structures, reducing profit margins or boosting worker productivity. Furthermore, some firms do not use pay structures based on age-related rates, negating risks of increased discriminatory recruitment policies.

Fostering good relations

The PSED requires to have due regard to the need to foster good relations between people who share a protected characteristic and those who do not. The NLW has national coverage, paid to all workers of any social characteristic. This should retain the diversity in the workforce; from skills to ethnicity to social background. Workplace relations should remain positive with workers benefiting from a higher wage floor.

Family test

We consider the introduction of the NLW will provide a net benefit to families, by making work pay. This policy results in a transfer from employers to employees, increasing the wage of the lowest paid.

The increase in April 2016 to £7.20 from the current NMW of £6.70 will mean a 7.5% increase in hourly pay, and a full time worker will earn £910 more compared to today.

OBR forecasts suggest a full-time NMW worker will earn over £4,800 more by 2020 from the NLW in cash terms, or £4,400 after taking into account inflation.

By 2017-18, 8 out of 10 working households are forecast to be better off as a result of the personal allowance, NLW and welfare changes announced in the Summer Budget. These changes should also increase work incentives. 17.7 million households will benefit in total.

Additional analysis done by the IFS estimates similar gains for families with and without children. This policy will positively impact a range of family dynamics at different scales and time periods.

Annex 2: Supplementary coverage estimates by sector, region and full-time/part-time

Table A3: Estimated NLW coverage in 2016, split by low paying sectors

Low-paying sectors	Number covered by NLW	Percentage of all covered by NLW	Percentage of sector covered	Additional coverage compared to NMW 2016 Q4 (as % of total workers)
Agriculture	20,000	1.1%	12.0%	3.3%
Food processing	70,000	4.2%	24.6%	5.8%
Textiles	10,000	0.6%	17.9%	5.9%
Retail	350,000	19.8%	22.8%	7.3%
Hospitality	250,000	14.5%	35.9%	8.3%
Cleaning	300,000	17.1%	39.1%	8.3%
Social care	120,000	7.0%	18.1%	5.3%
Childcare	60,000	3.3%	20.9%	6.8%
Leisure	30,000	1.6%	15.9%	3.6%
Hairdressing	20,000	0.9%	26.7%	4.7%
Office work	40,000	2.4%	11.0%	3.5%
Non-food processing	40,000	2.3%	12.1%	3.8%
Storage	80,000	4.4%	16.4%	4.0%
Transport	60,000	3.3%	13.5%	2.8%
Non low-paying sectors	300,000	17.4%	1.7%	0.5%

Source: BIS analysis of the Annual Survey of Hours and Earnings 2014, ONS. Additional coverage indicates how many additional individuals will be covered by the NLW compared to coverage under the NMW counterfactual for workers aged 25 and over (2016Q4). This is expressed as a share of the total 25+ workforce of the sector. Additionally, total coverage is given as 1.75m; this differs from the 1.74m used elsewhere due to rounding.

Table A4: Estimated NLW coverage in 2016, split by region

Region	Number covered by NLW	Percentage of all covered by NLW	Percentage of region covered
North East	80,000	4.6%	8.8%
North West	210,000	12.5%	8.7%
Yorkshire and the Humber	170,000	9.9%	9.2%
East Midlands	150,000	8.6%	9.3%
West Midlands	180,000	10.3%	8.8%
South West	140,000	8.4%	7.3%
East	150,000	9.1%	7.5%
London	150,000	9.0%	4.3%
South East	170,000	10.0%	5.4%
Wales	90,000	5.4%	8.9%
Scotland	130,000	7.9%	6.5%
Northern Ireland	70,000	4.2%	10.8%

Source: BIS analysis of the Annual Survey of Hours and Earnings 2014, ONS

Table A5: Estimated NLW coverage in 2016, split by full-time/part-time

FT/PT	Number covered by NLW	Percentage of all covered by NLW	Percentage of FT/PT covered
Full-time	678,000	38.7%	3.9%
Part-time	1,076,000	61.3%	16.7%

Source: BIS analysis of the Annual Survey of Hours and Earnings 2014, ONS

Annex 3: Net Present Value and direct cost to business calculations

Table A6: Costs and benefits of Option 1 - Introduce a NLW into the current NMW framework.

Impact on business (%)	Direct impact on business	In scope of OITO?	Cost or benefit	Year 0	Nominal total	Present value total	Business Net Present Value (OITO)
Costs							
100%	YES	No	Direct labour costs (wage bill + non-wage costs) – business	804.4	804.4	804.4	N/A
0%	NO	No	Direct labour costs (wage bill + non-wage costs) - public	31.2	31.2	31.2	N/A
	NO	No	Ripple effect (wage bill + non-wage costs) that is indirect – public, plus discretionary private sector	242.8	242.8	242.8	N/A
100%	YES	No	Ripple effect (wage bill + non-wage costs) that is private sector direct impact	37.7	37.7	37.7	N/A
94%	YES	No	Transition costs	22.6	22.6	22.6	N/A
Benefits							
0%	NO	No	Direct impact on wages of employees	698.1	698.1	698.1	N/A
0%	NO	No	Direct non-wage labour benefits (Exchequer and employee)	137.5	137.5	137.5	N/A
0%	NO	No	Indirect ripple effect on wages of employees	184.6	184.6	184.6	N/A
0%	NO	No	Direct ripple effect on wages of employees	49.7	49.7	49.7	N/A
0%	NO	No	Indirect ripple effect labour benefits (Exchequer and employee)	36.4	36.4	36.4	N/A
0%	NO	No	Direct ripple effect labour benefits (Exchequer and employee)	9.8	9.8	9.8	N/A
Totals							
Total cost				1138.7			
Present value total cost						1138.7	
OITO present value total cost							N/A
Total benefit				1116.1			
Present value total benefit						1116.1	
OITO present value total benefit							N/A

Source: BIS estimates. The measure is expected to be out of scope, so the business NPV (OITO) is N/A. However, the analysis and summary above includes direct cost to business and EANCBS summary figures nonetheless that are out of scope. Values deflated to 2015/16 price level using GDP deflator. The direct cost to business/EANCBS figures presented above and in the summary are calculated using the IA Calculator and is in 2014 prices.

Annex 4: One-year appraisal period

A key methodological question is the timeframe for appraising the NLW amendment.

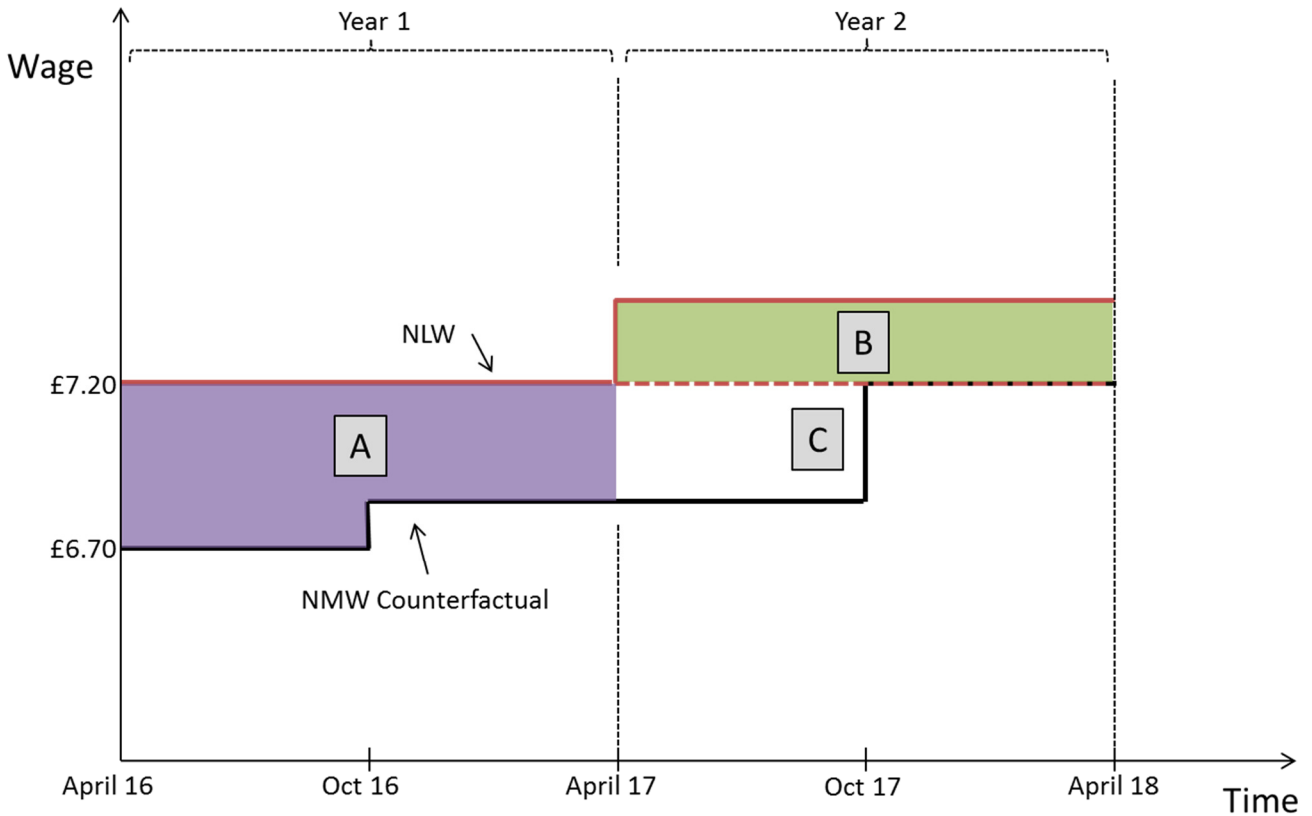
Chosen approach

Our chosen approach is to appraise the impact for FY2016-17 only. This involves comparing the proposal (a pay floor of £7.20) to the counterfactual of the NMW had there been no NLW.

The appraisal period begins in April 2016. At this point, we know two policy rates: the NLW of £7.20 and the NMW that would be the counterfactual pay floor (£6.70). In constructing the counterfactual, we know that the NMW will be £6.70 until October 2016 when it will be updated. For simplicity, we assume that the NMW would increase with average earnings in October 2016.

This appraisal is captured in the first half of the below stylised illustration – year 1. This IA captures the purple area (A) of the impact of the NLW. Figure 1 is also a reasonable representation of the counterfactual: if we assume that the NMW upratings are in line with average earnings growth, then the counterfactual NMW only reaches £7.20 in year two.

Figure 1



Key problem

This one year appraisal period creates a problem if future NLW amendments are appraised against a counterfactual of the pre-existing NLW rate; that is, if we appraise a new NLW rate next year against a continuation of the current £7.20 rate.

Consider year 2 in Figure 1. This approach would mean comparing the new NLW (at a higher rate after a step change) against a counterfactual wage floor of £7.20 – illustrated by the dashed red line extending along £7.20. The appraisal would then assess the impact of the amendment as the green area (B).

However, this does not capture the entire impact of the NLW. For simplicity and in order to reflect real projections over the next 2 years, the diagram assumes that the NMW would have increased to £7.20 half way through year 2. The total effect of the £7.20 rate extends across two time periods: areas (A) and (C) combined. The true impact of the NLW in year 2 is the sum of areas (B) and (C). Using £7.20 as a the baseline in the appraisal for year 2 would mean that area (C) is never captured by an impact assessment for the NLW.

The RPC identified this problem in its opinion on the NMW 2015 IA:

“the NMW will not revert back to its previous level after a year; rather it will be used as the baseline for the next uprating. On that basis, it is arguable that the “active life” of the proposal is longer than one year. In particular, an increase in the NMW is not reversed after one year and therefore raises the baseline for the next annual uprating ... the Department should demonstrate further whether one year is the correct appraisal period, or whether it is the only practicable approach”

Chosen solution

When considering next year’s NLW amendment, the IA will appraise the impact for year 2. We intend and fully expect to use the counterfactual of there being no NLW; that is, the counterfactual would be the NMW rate we would have expected had there been no NLW. This yields an estimate of areas (B) and (C) and so ensures that the total effect over two years is captured by the two appraisals.

The NMW set in the interim time period will not be an appropriate counterfactual because it will be set for 21-24 year olds with a fundamentally different labour market dynamic to the 21+ population. We could always refer back to the £6.70 rate in future IAs and apply observed earnings growth to that. However, the robustness of this counterfactual would weaken as future IAs would have to refer back further into the past for the April 2016 £6.70 ‘anchor’.

We will use the best available evidence to define this counterfactual in next year’s IA. For example, one approach is to assume that the bite of the NMW in the counterfactual world would be equivalent to 55% of the median earnings of those aged 21 and above, rather than just historical growth applied to £6.70. For whatever counterfactual October NMW uprating we estimate, this will be based on the forecast median earnings for 21+ workers, and this in turn will be based on the most recent data – released after the preceding year’s IA. The 55% of the

median would be a reasonable assumption based on the 'bite' of the current and previous adult NMW rates. However, we will use the best available evidence to inform the counterfactual.

Note that this means that we intend the counterfactual for the appraisal of different options in next year's IA to be the NMW if there had been no NLW; it does not mean that one of the *options* considered in the IA will be removing the NLW.

Comparison to alternative approaches

The alternative: multi-year appraisal periods

The main alternative method of capturing all the impact of the NLW would be to do a two year appraisal (in the above stylised scenario, matching this year's methodological challenge) assuming that the NLW stays at £7.20 throughout. This would mean the present IA would capture areas (A) and (C).

In future years, the counterfactual would then be the old NLW rate (i.e. £7.20 for the appraisal in a year's time). Repeating the process, the IA would cover as many years as it takes for this counterfactual (which would grow by average earnings forecasts) to meet the new, proposed NLW. This would be area (B) plus areas in future years that are equivalent to area (C) in year 2.

Comparison with our chosen approach

Both methodologies are valid and analytically robust – they both capture all the impacts of the NLW. However, neither is perfect.

Firstly, they both create challenging presentational issues. The multi-year approach involves an assumption that the £7.20 will extend beyond one year despite the fact that we know it will be reviewed in a year's time and it will almost certainly increase in line with the 2020 ambition. The single year approach means that the counterfactual in future years will be a world without the NLW even though this is unlikely to be one of the options being appraised. The IAs will need to refer back to the methodology set out in this IA.

Secondly, the one year approach may need to be revised in 2020. If the NLW reaches 60% of median earnings, then it is plausible that we'll have reached the new 'normal'; i.e. that achieving the medium-term objective means that the appropriate counterfactual is simply maintaining that level. In this scenario, the '(C) areas' from the latest uprating of the NLW may not be captured in a one year IA. However, if this arises, the methodological change for future years would provide an opportunity to re-assess this chosen approach and capture the full impacts.

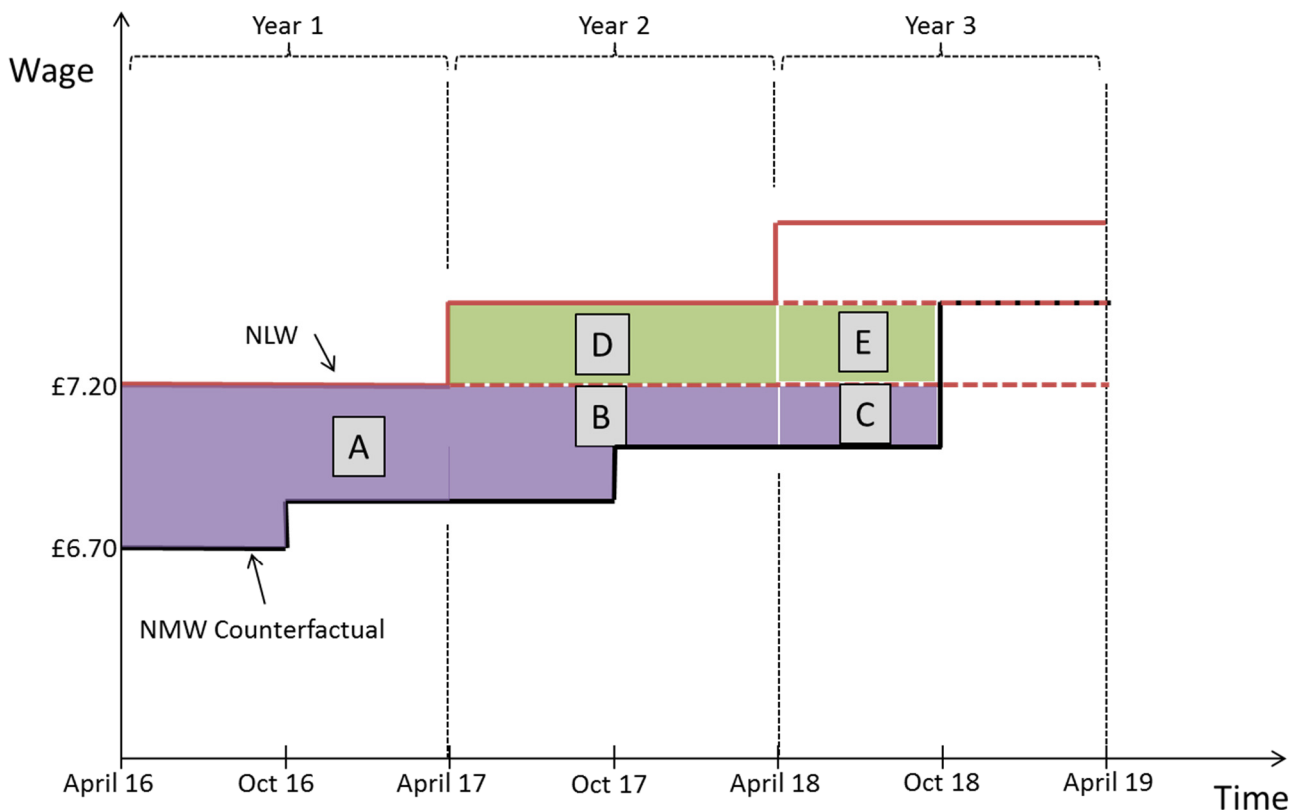
We believe our chosen approach is preferable for the following reasons:

- **It makes fewer assumptions about future policy.** Our approach makes an assumption about one policy decision - the NMW uprating in October 2016. The multi-year approach makes 3 such assumptions – the NMW upratings in October 2016 and 2017, and the NLW uprating in April 2017 (i.e. keeping it at £7.20). It is good practice not to make assumptions about future policy decisions. We want to minimise how much we have to second-guess future changes.

- **It estimates the counterfactual and area (C) with greater certainty.** Compared to the multi-year approach, our method means that the NMW counterfactual for year 2 will be estimated twelve months later and based on an additional year's earnings data, and it will use shorter-term wage forecasts. Both these factors mean it is more robust to estimate the NMW counterfactual for year 2 in next year's IA. In other words, the multi-year approach has to estimate the entire counterfactual in Figure 1 at the same time, whereas the single year approach allows the estimate for year 2 to be revised a year later – thereby making it more accurate.

This point about the greater certainty of the single year approach becomes more acute if the NLW increases by greater rates, as may be the case in future years. This could mean that the impact of the first uprating compared to the counterfactual extends over more than 2 years. The following figure illustrates this for a three year impact. In other words, the NMW would only reach the £7.20 level – and so the £7.20 NLW would only stop having an effect – in year 3.

Figure 2



The multi-year approach would appraise over three years and capture the entire purple area, (A), (B), and (C). In next year's IA, the appraisal period would be two years, capturing the green area.

Both the multi-year approach and the single year approach (with counterfactual of no NLW) would capture all the impact. However, the multi-year approach is notably less robust. As explained above, the counterfactual NMW defining area (B) would be estimated one year earlier than under our approach, but crucially, the counterfactual for area (C) would be estimated two years in advance, thereby missing two years' worth of additional data and extending the forecast period used by two years – adding greater uncertainty.

In short, the very circumstances that make it more important to capture the missing area (C) in Figure 1 are also the circumstances that make appraising the impact over more than one year less robust: the NLW increase is greater and therefore the effect extends into further years, making multi-year estimates of the counterfactual less robust.

Annex 5: Remit of the LPC 2016

Over the last 15 years the NMW has helped eliminate extreme low pay and preserve jobs in the face of recession. We appreciate the role that the Low Pay Commission (LPC) has played in these successes. Against the background of a continuing recovery, the Government would like the LPC to monitor, evaluate and review the levels of each of the different NMW rates (16-17, 18-20 age groups, adult and apprentice rates) and make recommendations on the increase it believes should apply from October 2016. Our aim is to have NMW rates that help as many low-paid workers as possible without damaging their employment prospects.

The Government is building on its strong economic performance that has seen 2 million more people in work in the last five years. A remaining, key economic challenge the Government wants to address is to move away from a low wage, high tax, high welfare society and encourage a model of higher pay and higher productivity – supporting people who work hard and want to get on in life to fulfil their aspirations.

As such, the Government wishes to see a higher wage for more experienced workers and so is introducing a premium for workers aged 25 and over. This will be over and above the NMW which will remain in place. The Government will set the first premium in April at 50p bringing the total National Living Wage (NLW) to £7.20 in April 2016. The Government asks the LPC to recommend the level of the NLW to apply from April 2017.

The Government estimates that the level of the combined NMW and the premium in April 2016 will be 55% of median earnings and has set out an ambition that this should continue to increase to reach 60% of median earnings by 2020, subject to sustained economic growth. The Government's objective is to have a NLW of over £9 by 2020.

In making recommendations in relation to the premium the LPC is asked to consider the pace of the increase, taking into account the state of the economy, employment and unemployment levels, and relevant policy changes.

Depending on the outcome of the review into bringing forward the NMW cycle, alongside the NMW recommendations in February 2016 the LPC are asked to provide indicative NMW rates for 2017, in order to give more certainty to business. Alongside the premium recommendation in October 2016 the LPC are asked to provide an indicative premium rate for April 2018. Both of these being subject to confirmation in light of economic conditions.

The LPC is asked to provide a report to the Prime Minister and the Secretary of State for Business, Innovation and Skills on the NMW rates as early as possible in February 2016, and on the NLW by October 2016