Title: Amendment to the National Minimum Wage regulations 2016 - increase in National Minimum Wage rates **IA No:** BIS002(F)-16-LM **RPC Reference No:** **Lead department or agency:** Department for Business Innovation and Skills (BIS) **Other departments or agencies:**	**Impact Assessment (IA)** **Date:** 05/07/2016 **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: Awaiting Scrutiny

Cost of Preferred (or more likely) Option				
Total Net Present Value	**Business Net Present Value**	**Net cost to business per year** (EANDCB in 2014 prices)	**One-In, Three-Out**	**Business Impact Target Status**
£0	-£184.1m	£90.2m	Not in scope	Non qualifying provision

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

There is potential for exploitation in the labour market in specific areas or parts of the economy, in particular in situations where employers have unequal bargaining power, allowing them to pay unacceptably low wages, and where workers lack experience, skills, mobility or opportunities. The National Minimum Wage (NMW) is a statutory pay floor that provides protection for low-paid workers by preventing potential exploitation while providing a greater incentive to work. The NMW came into force in April 1999 and, in order to continue tackling exploitative pay, the NMW rates have been reviewed by the Low Pay Commission (LPC) annually since then. This Impact Assessment relates to the 2016 NMW upratings.

What are the policy objectives and the intended effects?

The objective of the NMW is to maximise the wages of the low paid without damaging their employment prospects by setting it too high. The NMW sets a wage floor below which pay cannot fall ensuring protection for low-paid workers, while also providing incentives to work. Each year the NMW rates are revised to ensure that they still meet the policy objectives, however, this year the NMW rates will be reviewed after 6 months as we move to uprating in April from 2017.

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

The independent LPC was set up in 1999 to make recommendations on the NMW to Government. In making its recommendations to Government, the LPC has consulted extensively and undertaken substantial analysis. Details are contained in its 2016 Spring report.

The Government has considered two options this year:

0. Do nothing - maintain current NMW rates and system
1. Implement the LPC recommended rate increases

The Government's preferred option is to implement the LPC's recommended rate increases. This is to ensure that the NMW continues to achieve its objective of preventing the exploitation of workers and maximise the wages of the low paid without damaging their employment prospects. Option 0 would not achieve this.

This Impact Assessment appraises the October 2016 increases in the 21-24 year old, development, youth and apprentice rates. This does not include the National Living Wage.

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** LPC reports (inc. Oct 2016)

Does implementation go beyond minimum EU requirements?	N/A			
Are any of these organisations in scope?	**Micro** Yes	**Small** Yes	**Medium** Yes	**Large** Yes
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)	**Traded:**	**Non-traded:**		

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 July 2016

Summary: Analysis & Evidence

Policy Option 1

Description: Option 1 - implement the LPC recommended NMW rate increases

FULL ECONOMIC ASSESSMENT

Price Base Year 2015	PV Base Year 2016	Time Period Years 2	Net Benefit (Present Value (PV)) (£m)		
			Low: 0	**High:** 0	**Central Estimate:** 0

COSTS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Cost** (Present Value)
Low	0		78.9	**156.9**
High	0		188.3	**374.7**
Central Estimate	0		150.9	**300.2**

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

Our central estimate of the overall impacts of the LPC NMW rate recommendations is for a total cost to employers of £300.2 million (£206.4m direct impacts of which £185m falls on the private sector; £95.5m indirect impacts of which £86.8m falls on the private sector). This is a transfer with a neutral net economic impact. It is made up of £251.2 m of increased wages for employees, and £50.7 mi of increased non-wage labour costs, which are mainly employer pensions and national insurance contributions (the discrepancy in totals is due to rounding).

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

The evidence from the LPC report suggests that the NMW rates recommended by the LPC will not have a negative impact on employment, with negligible impacts on hours worked and training. Furthermore, as the NMW increases annually and is fully embedded in the UK labour market, we assume no transition costs to its increase. This is discussed further in the methodology section.

BENEFITS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Benefit** (Present Value)
Low	0		78.9	**156.9**
High	0		188.3	**374.7**
Central Estimate	0		150.9	**300.2**

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

Our central estimate of the overall benefits of the LPC NMW rate recommendations is for a total benefit to employees and the Exchequer of £300.2 million. This is a transfer from employers with a neutral net impact. Employees benefit from £251.2 m of increased gross wages, while employees and the Exchequer benefit from an increase in pension and National Insurance contributions of £50.7 million (the discrepancy in totals is due to rounding).

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

Employers who provide accommodation are expected to benefit from an increased amount that can be offset against NMW pay. Workers can also benefit as these are often mutually beneficial arrangements. Take up of this is likely to be low.

Key assumptions/sensitivities/risks — **Discount rate (%)** 3.5

Counterfactual earnings growth is uncertain so we undertake sensitivity analysis with a high scenario estimate derived from the assumption that wages would not increase if the NMW did not increase and a low estimate in which wages would increase by average earnings. In the central scenario, wages grow at half of average earnings in the absence of an NMW increase. A spillover effect (indirect impacts) is incorporated whereby wages for some workers are increased to maintain the pay differential with previously lower-paid workers. Impacts are a transfer from employers to employees and the Exchequer.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			**Score for Business Impact Target (qualifying provisions only) £m: N/A**
Costs: 90.2	**Benefits:** 0	**Net:** -90.2	

Contents

Impact Assessment scope

The Low Pay Commission has recommended increases in the 21-24 year old, development, youth, and apprentice National Minimum Wage rates. These rates will come into force on 1st October 2016.

All workers aged 25 and over who are not in the first year of an apprenticeship are eligible for the National Living Wage. The reasons for this differentiation according to age were set out extensively in the IA for the introduction of the National Living Wage.

The LPC have made their recommendations for the 21-24 year old NMW rate in light of this change. Their report contains extensive discussion of the 21 to 24 age group, including the likely impact of the National Living Wage on this group.

This Impact Assessment does not appraise the impacts of the National Living Wage. The £7.20 National Living Wage rate will apply from April 2016 to April 2017. The Low Pay Commission will report in October 2016 with a recommended rate for the National Living Wage to apply from April 2017. This will be discussed and analysed in a future impact assessment.

The problem and rationale for intervention

The aim of the National Minimum Wage (NMW) is to provide protection to low-paid workers by avoiding potential exploitation by employers who, in the absence of government intervention may pay unacceptably low wages. It also helps to provide a level playing field for firms, preventing them from undercutting competitors and provides incentives to work. The NMW came into force in April 1999 and since then the NMW rates have been reviewed annually by the Low Pay Commission (LPC). The aim when setting the rates is to increase the wages of the lowest paid as much as possible, while making sure that their employment prospects are not damaged by setting it too high.

The Government commissions an independent body, the LPC, to recommend the appropriate NMW rates. The final decision on whether to accept the LPC's recommendations is made by the Government. As the decision on the appropriate NMW rates is an empirical one, the LPC report contains a large body of evidence and analysis on the impact to date of the NMW. This year, the LPC has also considered the likely impact of the National Living Wage, which came into effect on 1 April 2016. The LPC considers the prospects for the UK economy by considering the latest available forecasts for growth, average earnings, inflation, employment and unemployment from the Office for Budget Responsibility and the median of the HM Treasury panel of independent forecasters. They also have an extensive consultation period to include the views and analysis of a number of interested stakeholders. The Government also provides evidence on the labour market and policy developments. The evidence and data collected and produced by the LPC have been used to inform this IA.

As young people can face a comparative disadvantage when entering the labour market, the LPC recommends separate NMW rates by age band (16-17, 18-20 year olds, and 21-24 year olds). This primarily reflects the position of younger workers who tend to have less work experience, less knowledge of where to look for work and fewer in-work contacts. A higher minimum wage could in theory have more potential for negative employment effects for young people.

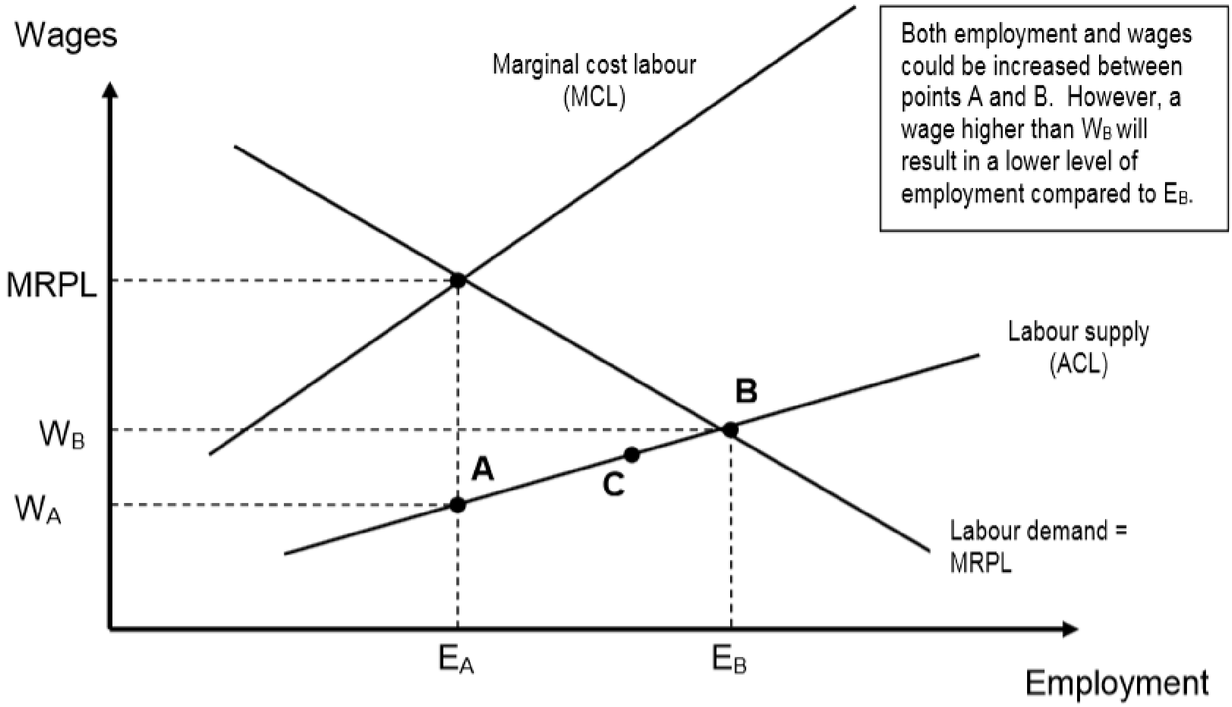
The Apprentice National Minimum Wage (ANMW) was introduced in 2010 to ensure Apprentices previously exempt from the NMW received the legal protection of the NMW. It applies to those Apprentices who are aged under 19 or aged 19 or over and in the first year of their Apprenticeship. The level of the ANMW should provide a fair deal for Apprentices, protecting them from exploitation whilst at the same time not deterring businesses from taking them on and providing quality training.

The LPC also makes recommendations for the value of the Accommodation Offset. The Accommodation Offset was introduced in 1999 and provides a mechanism to offset the cost of providing accommodation for workers against the NMW. Accommodation is the only benefit-in-kind that can count towards the NMW as there are scenarios when the provision of accommodation can be mutually beneficial for both employer and worker. The offset arrangements provide protection to workers and give some recognition of the value of the benefit, but are not intended to reflect the actual costs of provision. The LPC reviewed the accommodation offset in their 2013 report and concluded that accommodation should remain the only permitted benefit-in-kind that can count towards payment of the National Minimum Wage

The economic rationale for the NMW is to address the welfare loss caused by unequal bargaining power in the labour market. 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. However, when employers have market power, this can lead to lower wages and lower employment, as firms will seek to maximise profits.

To illustrate the implications of imperfect labour markets where employers have market power, consider a stylised example of a monopsonist, where workers have homogenous skills. The monopsonist will initially hire the cheapest workers first. 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.

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



Policy objective

The NMW sets a wage floor, below which pay cannot fall, ensuring protection for low-paid workers and raising wages while also providing incentives to work. The aim when setting the rates for workers under 25 is to raise the wages of the lowest paid as much as possible, while making sure that their employment prospects are not damaged by setting it too high. Each year the NMW rates are revised to ensure that they still meet the policy objectives.

Consultation

The NMW rates are underpinned by extensive consultation, analysis, and evidence-gathering. On top of its own expertise and analysis – in part informed by the Government's evidence submissions[1] - the LPC consults with a wide range of stakeholders from across civil society. The LPC recommendations take into consideration the views of businesses and employee representatives.

The LPC consulted with almost 200 stakeholders for their Spring 2016 report. Full detail of the LPC's consultation process and responses can be found in their report.

[1] BIS (2016), Final government evidence to the Low Pay Commission's 2016 Report

Options identification

This IA considers two options:

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

Option 1) Implement LPC recommended rate increases

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

Option 1: implement LPC recommended rate increases

The remit of the LPC for their Spring 2016 report was to recommend the appropriate levels for the 21-24 year old, development, youth and apprentice rates. The new National Living Wage – which came into force in April 2016 – is not covered by these NMW rate increases. The remit was to recommend rates that would help as many low-paid workers as possible without damaging their employment prospects. The remit underpinning these rate recommendations is presented in Annex 1.

The LPC rate recommendations are as follows.

Table 1: Low Pay Commission NMW rate recommendations for October 2016

	Current rate	LPC recommendation	Percent increase
21-24 year old rate	£6.70	£6.95	3.7%
Development rate (18-20 year olds)	£5.30	£5.55	4.7%
Youth rate (16-17 year olds)	£3.87	£4.00	3.4%
Apprentice rate	£3.30	£3.40	3.0%

These rates will apply for the 6 months from October 2016 to April 2017. The Government has announced the alignment of the next uprating of the NMW rates with the next uprating of the NLW rate meaning that the next set of NMW and National Living Wage (NLW) rates will come into force in April 2017. The Government has asked the LPC to make recommendations for all these rates in October 2016.

This IA appraises the increase in the NMW for October 2016. The Government will produce another IA for the April 2017 increases in the NLW and NMW rates.

The rationale for the LPC's recommendations is summarised here. The LPC provide extensive further discussion of the evidence in its Spring 2016 report.

The labour market conditions for 21 to 24 year olds are markedly different from older workers; for example, the unemployment rates for 21-24 year olds are twice as high as for those aged 25 to 30. This justifies the age-related minimum wage rate structure and was discussed extensively in the National Living Wage IA. The LPC recommendation for the 21 to 24 year old rate is for it to increase by 3.7%; this is above forecast inflation and is set to restore the real value of the 21-24 rate to a level surpassing its 2007 peak. This is because 21 to 24 year olds have seen rapid recent improvement in unemployment rates which have almost recovered to pre-recession levels and fell by 3.5 percentage points over 2015. The employment rate grew significantly in the past year by 2.3 percentage points. Pay grew by 3.2% for 21-24 year olds between 2014 and 2015; this strong growth was twice as fast as the rate for workers aged 25 and over.

The labour market conditions for 18 to 20 year olds have improved, including sharply falling unemployment, solid median pay growth for a third successive year, and a fall in the level of the NMW relative to median earnings. The position of 16 to 17 year olds has also begun to improve, though still lagging behind that of 18 to 20 year olds. Employment rates for 16-17 year olds rose by 2.2 percentage points, to 46.4%, in the year to the third quarter of 2015; and rose by 1.2 percentage points, to 66.4%, for 18-20 year olds. Unemployment rates fell by 2.1 percentage points to 30.2% for 16-17 year olds; and by 2.4 percentage points to 19.2% for 18-20 year olds. In light of these considerations, the LPC recommends further significant steps to recover the position of the development and youth rates compared to real-terms highs before the recession.

The LPC recommend increasing the apprentice rate roughly in line with expected pay growth elsewhere in the economy. This is because of limited new evidence. The LPC highlights that recent indicators – both apprenticeship starts and earnings measured by ASHE – show a positive picture, but there is significant uncertainty because of limited data covering the period after the significant 21% increase in the apprentice rate in October 2015, and because the apprenticeship policy landscape is undergoing significant change.

The LPC recommends a 65p (12.1%) increase in the daily accommodation offset from £5.35 to £6.00. This is in-line with the recommendation from the LPC's 2013 report that the accommodation offset should be increased in stages toward the value of the adult NMW rate.

The Government agrees with this assessment, some of which was outlined in its final evidence to the LPC.

Impact of Option 1: Implement LPC recommended rate increases

Methodology

Overview

This IA appraises the impact of the NMW rate increases for the whole economy and then investigates the following:

- Variations in impact by:
  - Business size
  - Region
  - Sector
- Equality impacts
- Competition impacts
- Family Test

We use the Annual Survey of Hours and Earnings 2015 to conduct wage distribution analysis for each NMW rate.

There is uncertainty around the appropriate counterfactual for appraisal of an increase in the statutory wage floor. This is discussed further from page 11. Because of this uncertainty, we have assessed the impacts of the increase in the NMW rates against three wage growth counterfactuals:

1. Low: the wages of the lowest paid grow in line with forecast average earnings
2. High: the wages of the lowest paid remain flat (zero wage growth)
3. Central: the wages of the lowest paid grow at half of forecast average earnings growth).

We model the earnings distributions from ASHE according to these counterfactuals. ASHE 2015 is sampled from April 2015 and therefore does not include the October 2015 NMW increases. We adjust for this by assuming everyone gets paid at least the new October 2015 rates. Practically speaking this involves deflating the October 2015 NMW rates and the new rates being appraised to fit the wage distribution in April 2015, using the wage growth assumption employed in the counterfactual.

The NMW rates will apply between October 2016 and the end of March 2017. However, the appraisal period in this impact assessment extends beyond this according to the growth rate assumed in the central scenario.

In line with our methodology for appraising the introduction of the National Living Wage and previous NMW upratings, we assume that increases to the NMW rates have spillover effects (indirect impacts). 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 greater level. 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. Using 20%

captures the assumption that only some employers will maintain differentials in this way. Both of these assumptions are as suggested in research published by the LPC[2]. This is the same as the methodology used by the OBR and BIS for appraising the impact of the National Living Wage. This is also supported by recently published survey evidence from PwC investigating the introduction of the National Living Wage. 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 bands[3]. In a survey carried out the Chartered Institute of Personnel and Development and the Resolution Foundation, 20% of employers said they would maintain pay differentials in this way[4] in response to the introduction of the National Living Wage.

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

Consequently, the spillover effect plays two roles: firstly, it impacts the coverage of the NMW rates 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 NMW rates 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 new NMW rates and the latter, indirect effects 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 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 the number of weeks for which the rates remain above the central counterfactual; that is, we take a snapshot of the impact halfway through the appraisal period and extrapolate this for the entire period. This is appropriate because the gap between the NMW rates and the counterfactual earnings distributions will be biggest at the start of the period 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 20.2% to account for non-wage labour cost increases that depend upon wages, such as pensions contributions and employer national insurance contributions. This factor of 20.2% stems from Eurostat analysis on non-wage labour costs[5]. We expect this to be an overestimate because some NMW workers are likely to earn below the threshold for national insurance contributions.

The total direct cost to business is therefore the change in labour cost to business if the NMW rate increases are implemented – the labour cost with the new rates, minus the counterfactual labour cost, for each worker covered by the new rates.

[2] 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)

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

[4] https://www.cipd.co.uk/pressoffice/press-releases/nlw-rf-release-181115.aspx

[5] In 2015, average UK wage costs were €21.40 per hour relative to total hourly labour costs of €25.72. http://ec.europa.eu/eurostat/statistics-explained/index.php/Hourly_labour_costs

Outputs presented in this IA are expressed in terms of the price level in April 2015 – the time of sampling of ASHE. In keeping with Green Book guidance, no discount rate is applied because the appraisal period is only one year.

In its Spring 2016 Report, the LPC does not appraise the impacts of their rate recommendations. However, they do provide estimates of coverage of the new rates. These use a similar methodology to our estimates and assume that wages would grow in line with average earnings if the NMW rates did not increase. The main difference is that we have used OBR average hourly earnings forecasts rather than the median of the HM Treasury Panel of Independent Forecasts. This is because the former allows us to make a more precise estimate because forecasts are provided by quarter, whereas the latter provides only calendar year forecasts.

Key assumptions

Counterfactual

This Impact Assessment appraises increases in the NMW rates above their current levels; it does not appraise the overall impact of the NMW. Nor does this Impact Assessment appraise any impacts of previous NMW increases whose impacts may have extended beyond the year in which they are operation – given the uncertainty around this. This is discussed further in the section below on time period. For the purposes of the Business Impact Target, we will reassess whether it may be appropriate to estimate costs of NMW increases earlier in this parliament (October 2015) that may have extended beyond the single year appraisal period in future NMW impact assessments.

The wage growth assumption used for the counterfactual is reviewed each year according to the latest evidence. The annual increase in the NMW has been institutionalised in the labour market for the past 17 years and there are very few instances of rates not being increased. We do not have robust observations of what would happen to wages if the NMW rates did not increase. Acknowledging this uncertainty, we appraise a range of costs and benefits between the counterfactuals of zero wage growth, and forecast average earnings growth. No wage growth leads to an upper-bound cost estimate. We take half of average earnings growth as the central cost scenario as there is evidence to suggest that the wages of the lowest paid may grow (on average) at some rate in the absence of an NMW uprating. This evidence is discussed below.

Evidence for counterfactual

There is a consistent theoretical basis for making either a counterfactual assumption of zero earnings growth or of some level of earnings growth.

Zero earnings growth:

The core rationale for intervention is that employers have market power. If this is the case, then they might be able to use their market power to keep wages at the same level in the absence of an increase in the statutory minimum. In other words, they need not necessarily follow the trends of wage growth in the wider, more competitive labour market. If there was evidence to suggest that the majority of employers would exploit their market power in the absence of an increase in statutory minimum wage, then it is reasonable to believe that some workers on the minimum wage would experience zero earnings growth.

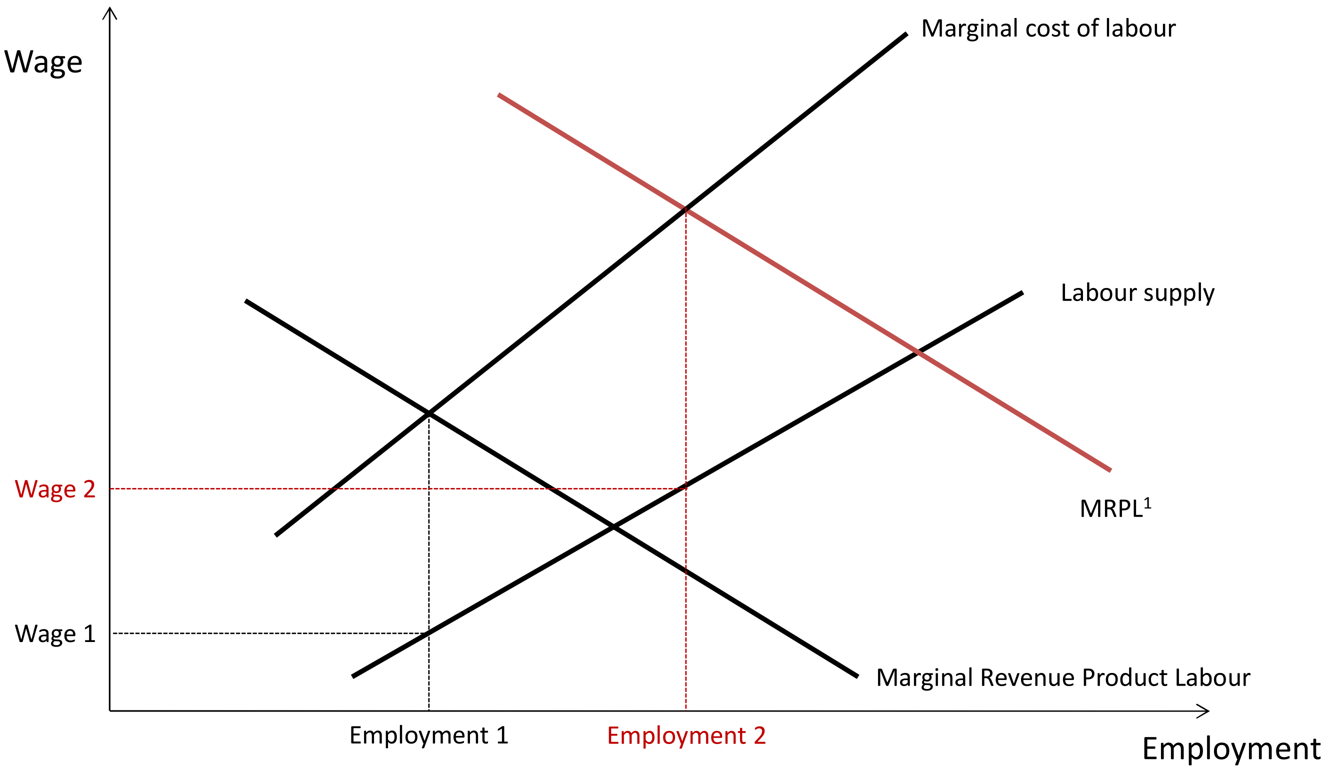
Some level of earnings growth:

Wages could still rise in uncompetitive labour markets, for example if there is strong economic growth.

As outlined in the rationale for intervention, firms employ labour such that the marginal revenue product of labour equals the marginal cost. An exogenous increase in the marginal revenue product of labour would increase the demand for labour and – assuming an upward sloping labour supply curve – this would require an increase in wages to employ the additional units.

Consider the following stylised illustration of a monopsony employer. Employment 1 is the level of employment that equates the marginal revenue product with the marginal cost. The employer pays Wage 1, as determined by the labour supply curve. If the marginal revenue product increases – as illustrated by the new, red line ($MRPL^1$) – then the employer will maximise profits at Employment 2. In order to employ this many workers, the wage needs to increase to Wage 2 – because of the upward sloping labour supply curve. Consequently, wages can increase without regulatory change.

<u>Figure 2: Increase in marginal revenue product in a monopsony scenario</u>



This effect would arise if demand in the employer's product market increases for example, thereby raising product prices for a given level of supply, and the marginal revenue received by the employer. This could be the result of increased aggregate demand across the economy.

Furthermore, the extent of market power can also change year on year. For example, if market power were to weaken for employers, then we might see employment and wages rise as a consequence. For example, this could come about as a result of increased competition in the product or labour market, increased union representation, or the reduction of other labour market frictions unrelated to the minimum wage system.

This suggests that the most appropriate counterfactual depends on the empirical evidence and the wider prospects for economic growth, including indicators of possible changes in market power. There is some evidence that some employers choose to offer wages above the NMW for roles where other employers pay the NMW, and that there is wage growth for workers paid just above the NMW (see table 2).

Based on the above theory, we consider the latest evidence in terms of employment, earnings, and the future prospects for the economy. As mentioned above, we asses impacts across a range, however, the balance of evidence suggests that counterfactual wages would likely grow at some rate between zero and average earnings growth. In the absence of conclusive evidence of what this growth rate should be specifically, we have opted for a counterfactual of half of average earnings growth for our central scenario.

Our wage growth assumptions will be reassessed for the next NMW impact assessment.

Labour market evidence

The UK labour market has performed strongly over the last couple of years. In the three months to April 2016, the employment rate remained at record highs of 74.2% (0.8 percentage points higher than a year earlier) the employment level was close to its highest on record at 31.59 million[6], and the unemployment rate was at 5.0%, the lowest since August to October 2005.

While the employment conditions for younger workers were particularly hit during the recession, there have been significant recent improvements[7]:

- for those not in full-time education, the unemployment rates are currently around 10 percentage points lower for workers aged 16-17 and 18-20 compared to their respective 2011 peaks, while the unemployment rate for those aged 21-24 is approximately 5 percentage points lower than its 2013 peak.
- The employment rate for young workers not in full-time education has increased for the past two years.
- The number of workless under 25s has decreased since 2012 both for those who have and who have not previously had a job.
- The 16-24 year old NEET rate (not in education, employment or training) is around its lowest since the series began in 2001.

Evidence on pay

ASHE 2015 showed that real earnings returned to growth for the first time since the recession between April 2014 and April 2015. Adjusted for inflation, median full-time weekly earnings increased by 1.9% over the period – the first real terms increase since 2008. Furthermore, the

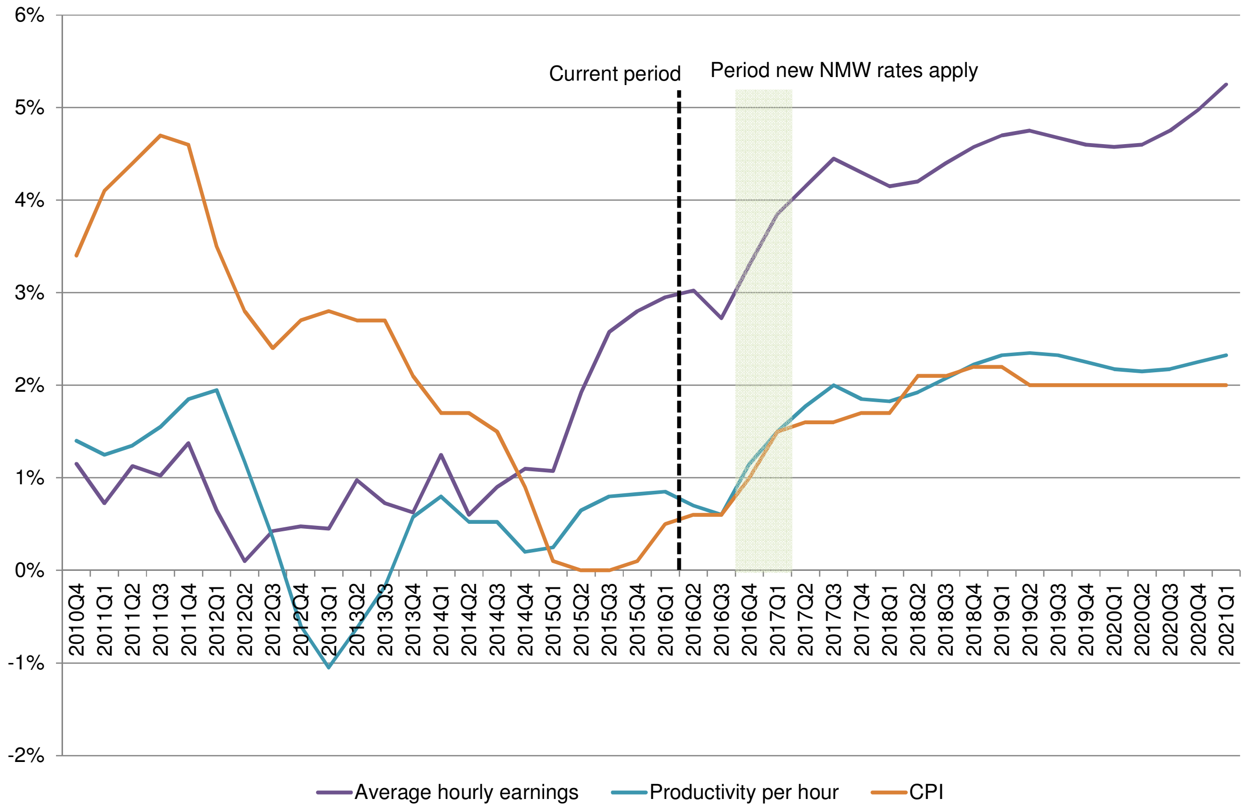
[6] Highest level on record was 31.42 for November 2015 to January 2016

[7] BIS (2016), Final government evidence to the Low Pay Commission's 2016 Report.

latest Average Weekly Earnings release for the three months to April 2016 showed that total pay and regular pay grew by 2.0% and 2.3% respectively on the year in real terms.

Currently published forecasts suggest that there will be continued strength over the period for which these NMW rates will be in force – October 2016 to April 2017. Following the outcome of the EU Referendum on 23rd June, there is uncertainty over current forecasts for the economy. The OBR will be updating their forecasts at Autumn Statement and in the meanwhile this analysis is based on the forecasts from March 2016. The following chart presents annual growth in average hourly earnings, CPI inflation, and productivity per hour worked as estimated by and forecasted by the OBR. In current forecasts, there is a clear expectation that recent real wage growth will strengthen with hourly earnings growth exceeding the rate of inflation, as well as an expectation that productivity growth will pick up too.

Chart 1: Actual and forecast annual growth in hourly earnings, inflation, and productivity



Source: OBR Economic and Fiscal Outlook March 2016. Annual growth rates: four quarter rolling averages, and then annual growth of these over time.

Table 2: Wage growth for those aged 22 and over by selected percentiles, 1975 – 2015

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

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

Note:

a. NES and ASHE data adjusted to take account of changes in the earnings series.

b. Shaded periods contain recessions.

c. The 5th percentile has included those on the NMW since 1999.

Table 2 shows that wage growth was present across the wage distribution prior to and after the introduction of the NMW. For example, annualised wage growth at the 5th and 10th percentiles between 1992 and 1997 was very similar to the growth in price inflation over the same period but was just less than one percentage point lower than growth at the median. Independently of the minimum wage, the shape of the wage distribution shifts over time, and wage growth differs for different age groups in different years.

While the Low Pay Commission does not quantify the costs of its recommendations, its most recent report (Spring 2016) estimates the coverage of the recommended rates for October 2016 using forecasted earnings growth as a baseline (Table 7.1). In addition, the LPC's OBR's and Government's previous impact assessment for the introduction of the National Living Wage use the OBR's forecast hourly earnings index as a counterfactual to measure the impacts. Other analysis also uses similar assumptions (for example the Resolution Foundation and IFS).

Economy forecasts

Other forecasters currently expect a similar picture to the OBR's forecasts. HM Treasury regularly publishes summaries of various independent forecasts for the UK economy. These are less detailed than the OBR in the variables available and because they cover calendar years only, rather than quarters, but they illustrate the expectation for strong growth in output and earnings over the coming years. As mentioned above, in the light of the outcome of the EU Referendum, there is uncertainty around forecasts for the economy. The OBR's forecasts will be revised later in the year to coincide with Autumn Statement.

Table 3: HM Treasury comparison of independent forecasts, %						
	2016			**2017**		
	Lowest	Highest	**Median**	Lowest	Highest	**Median**
GDP	1.5	2.5	**2**	1.2	2.7	**2.2**
Domestic demand	1.5	3.3	**2.2**	1.2	3.1	**2.2**
CPI	0.4	1.6	**1**	1.5	2.9	**1.8**
Average earnings	2	3.6	**2.8**	2.2	3.9	**3.3**
Real Household Disposable Income	0.5	3.2	**2.5**	0.7	3	**2**

Source: HM Treasury (March 2016), Forecasts for the UK economy: a comparison of independent forecasts

Our 'low' assumption uses OBR forecast average hourly earnings and our central assumption is based on half of this earnings growth forecast. Earnings forecasts for low pay workers specifically do not exist. In addition, it is reasonable to assume that similar market conditions may apply at the low end of the distribution as well. In particular:

- Employment growth in low pay sectors has tracked closely employment growth in the rest of the economy since the recession[8].

- This is corroborated when considering the growth in total hours worked: between 2014 and 2015, total hours worked grew by just over 2% in both low pay sectors and non-low pay sectors[9].

- For the economy as a whole in recent years, wage growth has actually been stronger for lower paid workers than at the median. According to the LPC (table 2 above), for workers aged 22 and over, annualised wage growth was 2.2% at the 5 percentile, 1.9% at the 10th percentile, 1.6% at the 25th percentile, and 1.5% at the median for the period 2011 to 2015. Crucially, this result may not just be capturing the fact that the NMW has increased over the period: the adult rate corresponded to the 5th percentile over that period – wage growth was still faster at the 10th and 25th percentiles compared to the median[10].

Furthermore, the introduction of the National Living Wage may have some upward pull effect on the wages of younger workers to which these NMW rates will apply – even if these rates do not increase. Ultimately, this is uncertain. However, many major high street employers have announced their intention to pay the National Living Wage to all their workers, not just those aged 25 and over, such as Costa Coffee, Starbucks, and Boots.

The same wage growth assumption is used for all of the NMW rates appraised in this impact assessment, although it is acknowledged that wage growth can vary between age groups. Unfortunately, there are no external forecasts of earnings growth by age group, or across different parts of the wage distribution.

[8] BIS (2016), Final government evidence to the Low Pay Commission's 2016 Report, Chart 18.

[9] Ibid. Chart 19.

[10] LPC (2016), 2016 Spring Report, Table 1.4.

There is particular uncertainty around the counterfactual for the apprentice rate. This is because:

- The rate increased by 21% in October 2015, faster than the LPC's recommendations.
- We do not have an update to the 2014 Apprentice Pay Survey and the ASHE data on apprentices needs to be treated with caution. This is primarily for two reasons. Firstly, the ASHE survey is weighted to reflect the wider population of employees, which may not reflect the composition of the Apprentice population and secondly, between the 2014 and 2015 ASHE surveys a change in the composition of the Apprentice population sampled may have affected the value of average earnings, and therefore the growth in these values between 2014 and 2015.
- As identified by the LPC in making their recommendations for the apprentice rate, the wider policy landscape around apprentices is undergoing sizeable change, for example with the introduction of the apprenticeship levy.

However, this uncertainty with respect to the apprentice rate does not have a material impact on the analysis. As illustrated in tables 5A and 6A, the total cost of the increase in the apprentice rate is only a fraction of the total cost of Option 1 (less than a tenth).

The Low Pay Commission will monitor the impact of the 21% increase in October 2015. This will provide us with a stronger evidence base in future. In particular, we will reassess during the Autumn whether impacts of this increase may extend beyond the appraisal undertaken in the previous NMW impact assessment for the purposes of the Business Impact Target.

Time period

In its opinion on the NMW IA 2015, the Regulatory Policy Committee identified the possible issue that the impact of the NMW increases would last for longer than the one year time period appraised. This is because it may take longer than one year for counterfactual wages to reach the new NMW rates. If the NMW increases in a year's time are appraised against the counterfactual of the pre-existing rates, this would lead to an element of the impact never being captured in an impact assessment.

As outlined above, the new NMW rates will be into force from October 2016 through to the end of March 2017. This is because the Government is aligning the increases in the National Minimum Wage and the National Living Wage in April of each year, starting in April 2017. This alignment was announced alongside the Government's response to the LPC Spring 2016 Report and was implemented through the new remit for the LPC. This means that the new rates will be in force for 6 months.

There is significant uncertainty over what the appropriate appraisal period should be for an increase in the minimum wage as there is no evidence that can help us make assertions over how long a particular NMW increase impacts on the wage distribution. Since its introduction, the adult NMW has increased in every year, making it difficult to isolate the impacts from one particular year's increase. Although the youth rates were frozen in 2012 (as mentioned above), this was because of the weak labour market conditions faced by younger workers at the time, suggesting that conclusions from this event may not be applicable to the wider population or in times of economic growth and a buoyant labour market. In addition, there is a theoretical basis upon which a single year appraisal period may be justified (box 1).

Using the current NMW rate as the baseline, table 4 shows that on OBR forecasts, average hourly earnings would reach the new NMW rates before the end of the six month period for which they are in force.

In the absence of conclusive evidence on the relative duration of the impacts of single NMW impacts, for this appraisal we have opted to appraise the impacts for the duration up until the central counterfactual 'catches up' with the increase in the NMW rate (see table 4 below). For the main NMW rate this is 58 weeks (half way between Q3 and Q4 2017), 71 weeks for the 18-20 rate, 52 weeks for the 16-17 rate and 45 weeks for the ANMW.

Table 4: Cumulative wage growth of counterfactual scenarios

	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018
Weeks for appraisal	-	-	-	-	13	26	39	52	65	78	91
Main NMW rate	-	0%	0%	0%	3.7%	3.7%	*	*	*	*	*
18-20 rate	-	0%	0%	0%	4.7%	4.7%	*	*	*	*	*
16-17 rate	-	0%	0%	0%	3.4%	3.4%	*	*	*	*	*
ANMW rate	-	0%	0%	0%	3.0%	3.0%	*	*	*	*	*
Zero wage growth	-	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Half of average earnings' growth	-	0.4%	1.1%	1.6%	2.1%	2.5%	2.9%	3.4%	3.9%	4.4%	4.9%
OBR average earnings counterfactual	-	0.9%	2.1%	3.2%	4.1%	5.1%	5.9%	6.7%	7.7%	8.7%	9.8%

*future NMW rates are currently unknown

As demonstrated in the table above, this approach is dependent on the central assumption around the wage growth of the lowest paid in the absence of a minimum wage uprating. For example, if the best assumption was one of zero wage growth, the appraisal period would be 10 years – this is the standard time period for government appraisal for policies that have no end point. Given the uncertainty around this assumption, and in the interest of simplicity we have used the same appraisal period from the central scenario for the low and high scenarios.

Given the uncertainty around this assumption, we will reassess it for future NMW impact assessments. Previous NMW impact assessments have used a single year appraisal period with varying counterfactual wage growth assumptions depending on the empirical evidence and economic conditions of the time. For the purposes of the Business Impact Target, we will also reassess in the Autumn whether it may be appropriate to estimate costs of NMW increases earlier in this parliament (in particular in October 2015) that may have extended beyond the single year appraisal period used in the previous impact assessment under different counterfactual assumptions.

Box 1: Theoretical argument for a single year appraisal

The LPC's remit for the NMW is that it should seek to maximise the wages of the low pay without damaging their employment prospects. From an economic theory point of view, this is similar to attempting to target the equivalent competitive market wage for low paid workers. Because of this theoretical rationale for the NMW, if we assume that the LPC achieves this target perfectly each year, the recommended rates would be at the rate that the competitive market for low paid workers would have arrived at anyway.

In every year for the main NMW rate and in almost every year for the other NMW rates the LPC has recommended an increase, rather than a freeze or a reduction, suggesting that the economy had moved on between its rate recommendations, and the equilibrium at which the rate should be set was higher. The balance of evidence to date suggests that the NMW has not had an employment impact, although this isn't necessarily an indication that the low-paid/skilled labour market is fully competitive.

As discussed earlier in this impact assessment, the NMW is based on a rationale of protecting workers from unequal bargaining power which may arise from imperfect markets. While the stylistic model of a monopsonist helps to demonstrate the problem, in reality there are a large number of employers employing low paid workers, with varying levels of competition across sectors and regions. In addition, the NMW has been in place since 1999 which makes it impossible to conclude on the level of bargaining power low paid workers would have in the absence of the NMW, and as such the extent to which these labour markets are competitive. Academic literature suggests that while the traditional model of a monopsonist may not be realistic in modern times, evidence of other frictions present in the labour market suggest that features from a monopsony model may still be relevant and useful as an analytical framework[11].

Classification of direct and indirect effects

We have appraised the direct impact of the NMW rates as the cost of increasing wages to the new statutory minimum (with the associated non-wage labour costs). We have classified the increase in labour costs caused by the ripple effect up the earnings distribution as an indirect impact. This distinction is appropriate because the only regulatory requirement on employers is to meet the new pay floor. The decision to raise wages of those earning above the new rates in order to maintain pay differentials is at the discretion of employers and not required by the regulation – in fact, some employers may choose to use the squeeze in wage differentials as a way of mitigating the overall labour cost impact of an increase in the NMW.

In its Initial Review Notice for the National Living Wage IA, the Regulatory Policy Committee commented that this classification did not capture the possibility that some of the ripple effect may be non-discretionary because pay differentials are written into contracts. The balance of evidence suggests that this is unlikely to be the case. This is based on the following pay setting

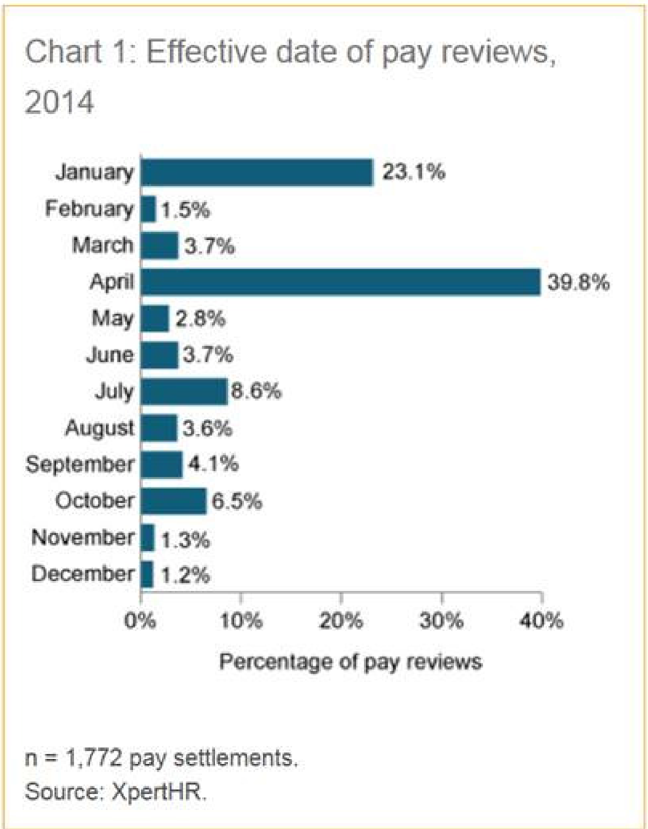
[11] Monopsony in Motion (2003), Alan Manning

evidence and informal consultation with the Low Pay Commission and representatives of employers and workers.

As outlined above, evidence suggests that the NMW has had an impact further up the wage distribution and in addition, there is evidence to suggest that the NMW can play a role in the pay setting behaviours of many firms and workers. For example, around 30% of all private sector workplaces (accounting for around 21% of employees) in 2011 mentioned the NMW as one influence on the pay settlement of their largest occupational group (compared to 62% mentioning financial performance and 36% mentioning the cost of living)[12]. However, econometric analysis commissioned by the LPC found that the impact of the NMW on industry wide wage settlements is not significantly different from zero but that the driving force on pay settlement levels overall is the past level of settlements and price inflation[13].

Analysis of pay settlement timing by XpertHR shows that across the economy, April was by far the most popular date for pay reviews in 2014 (accounting for almost 40% of pay deals, compared to 6.5% in October). However, this does vary by sector, and October is still favoured by many organisations that pay near to the NMW, with 17.9% of retail employers surveyed favouring pay deals in October. While this data also covers workplaces which would not bargain with unions to reach a pay deal, it is important to note that According to the BIS 2014 Trade Union Statistics, 27.5% of employees have their pay affected by a collective agreement, and according to the 2011 Workplace Employment Relations Study (WERS), just 7% of private sector workplaces bargained with unions over pay for any of their employees.

Figure 3: Effective date of pay reviews



[12] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/336651/bis-14-1008-WERS-first-findings-report-fourth-edition-july-2014.pdf

[13] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/226907/Econometric_modelling_of_pay_settlements_and_earnings_by_industry_from_1977_to_2010.pdf

According to WERS, 91% of private sector workplaces conduct pay reviews for employees in their largest occupational group at least once a year suggesting that employers routinely review pay and conditions, rather than implementing pre-set ratios of uplifts above NMW rates.

Furthermore, informal consultation with the Low Pay Commission, business stakeholders and unions confirms that it is not commonplace for employment contracts or collective bargaining agreements to define individuals' pay in relation to the NMW. While the NMW does have an impact on wider pay setting behaviour, the existence of employment contracts that link the pay of one worker to another (e.g. guaranteed differentials), or commit to a rate of pay that is X% above the relevant NMW is not commonplace in the economy. This indicates that increases in differentials as a result of NMW rises are an indirect business response to the change in legislation.

Transition costs

In line with previous NMW IAs, we assume no transition costs for the increases in the NMW rates because the annual NMW increases are fully embedded in the UK labour market and has increased regular for 17 years. The potential annual increase in the NMW rates is expected by businesses that employ workers on the NMW.

This is reinforced by the XperHR pay settlement evidence presented above. Low pay sectors relatively favour October pay settlements; for example, almost 18% of retail employers surveyed favoured pay deals in October. This reflects an awareness of the October NMW upratings.

The NMW structure is undergoing change with the introduction of the National Living Wage and the alignment of cycles such that future increases in the NMW rates will arise in April – from April 2017. The National Living Wage IA considered the transition costs of introducing the NLW. The IA for the April 2017 upratings of the National Living Wage and the NMW rates will consider the transition costs of aligning the cycles.

Anticipation effects

Subsequent to the 14th March 2016 announcement of the new NMW rates, some firms may pre-empt the October 2016 increases 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 effect's 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. In any case, they are a voluntary response by employers ahead of any legal obligation.

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 has been assumed for the core analysis. This is because we do not have a reliable basis on which to make a robust estimate of the true level of non-compliance for future NMW rates.

ASHE is a survey of employees completed by employers which can be used to identify jobs paid below the NMW rate. However, it is does not offer a direct measure of non-compliance in the population as there are legitimate reasons for a job to be paid below the NMW which are not measured by the survey, for example where accommodation is provided by the employer, or where there is data entry error. In addition, as results from ASHE are based on a sample of employee jobs in Pay-As-You-Earn income tax schemes, it does not include all workers who earn below the Lower Earnings Limit. ASHE is considered an accurate measure of pay information in the formal economy; however an evidence gap remains in reliable earnings data in the grey economy. BIS has commissioned a feasibility study into measurement of underpayment of the NMW in the informal economy. This should help to inform methods of measuring the true extent of non-compliance in future. According to ASHE, 209,000 employee jobs were paid less than the NMW in April 2015 – 0.8% of all 16+ employee jobs.

Additionally, most employee jobs that are measured as being paid below the NMW rates in ASHE are paid less than 10p below the relevant rate[14]. This may indicate errors in pay setting or data entry rather than wilful underpayment.

In light of this uncertainty, we assume full compliance with the NMW. This could be a cautious approach because including cases of potential non-compliance in our cost estimate will increase the total estimated cost to businesses (assuming non-compliant businesses become compliant).

However, this would contradict the Better Regulation Framework Manual (2.3.42) advises that the costs incurred by companies for non-compliance should not be included in the NPV or EANDCB. These costs include the penalties non-compliant firms can receive.

Displacement effects

We have not considered any potential displacement effects of possibly making younger workers relatively more attractive to adult workers given that the recommended increases in the youth NMW rates are smaller than that of the 21-24 year old rate. With the current evidence base any 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 18-21 years old were substantial, if not perfect complements to workers aged 55 or older. This 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 rate[15].

The LPC consider the possible impacts of different rates on other NMW rate groups when making their recommendations.

Apprentice data quality

Our estimates of the impact of the apprentice rate increases are based on ASHE. These estimates need to be treated with particular caution for the following reasons:

- ASHE 2015 was sampled in April 2015 – before the October 2015 NMW increases. As outlined above, this does not cause a significant methodological challenge as we assume everyone gets paid at least this new rate. However, the October 2015 NMW increase

[14] BIS (2016), Final government evidence to the Low Pay Commission's 2016 Report.

[15] LPC Report 2013 p.91

was 21% - greater than the LPC's recommendations. It is possible that this could have a more significant impact on the apprentice earnings distribution.

- We do not have an update to the 2014 Apprentice Pay Survey and the ASHE data on apprentices needs to be treated with caution because of possible compositional changes in apprentice sampling between the 2014 and 2015 ASHE.
- As identified by the LPC in making their recommendations for the apprentice rate, the wider policy landscape around apprentices is undergoing sizeable change, for example with the introduction of the apprenticeship levy. These effects have not necessarily been captured in the data available.

Appraisal of impacts

Our estimates of the impacts in each scenario are presented below. To provide some further context to the scale of these costs, the OBR forecast the total compensation of employees in 2016/17 to sum to £963.3bn.

Low scenario estimate

Our low scenario estimate of the overall impacts of the LPC NMW rate recommendations is for a total cost to employers of £157.8 million over 2 years (58 weeks for the 21-24 rate, 71 weeks for the 18-20 rate, 52 weeks for the 16-17 rate and 45 weeks for the ANMW). This is a transfer with a neutral net economic impact. It is made up of £131.2 million of increased wages for employees, and £26.5 million of increased employer pension and national insurance contributions. This is based on the assumption that wages would increase in line with OBR average hourly earnings forecasts in the absence of an increase in the NMW rates. Totals may not match due to rounding.

We estimate that 383,000 employees will be covered by the new rates at the mid-point of the appraisal period. This estimate differs to the LPC's estimate (482,000[16]) due to the methodological differences outlined from p.11.

The following tables provide a detailed breakdown of these impacts for each individual rate.

Table 5A: Low Estimate: Coverage and total cost (£m, 2015 prices)

	Coverage	Total wage impact	Non-wage labour cost impact	Total cost
21-24 year old rate	227,000	65.7	13.3	79.0
Development rate (18-20 year olds)	103,000	50.4	10.2	60.5
Youth rate (16-17 year olds)	1,000	3.8	0.8	4.5
Apprentice rate	52,000	11.4	2.3	13.7
Total Option 1	**383,000**	**131.2**	**26.5**	**157.8**

Note: (i) cost estimates include sum of direct and ripple effect costs; (ii) coverage is defined as all those paid at or below the NMW rate.

Table 5B: Low Estimate: Direct impacts (£m, 2015 prices)

	Wage impact	Non-wage labour cost impact	Total cost
21-24 year old rate	22.2	4.5	26.7
Development rate (18-20 year olds)	14.1	2.8	16.9
Youth rate (16-17 year olds)	0.1	0.0	0.2
Apprentice rate	8.1	1.6	9.7
Total Option 1	**44.6**[17]	**9.0**	**53.6**

16 Low Pay Commission Spring 2016 Report, Table 7.2

17 The scale of indirect impacts may be a slight over estimate in the low scenario only. This is due to the shape of the baseline wage distribution (from ASHE 2015) just above the NMW rate present in the raw data. We have not adjusted this out in order to keep modelling approaches consistent across the low, central and high scenarios.

Table 5C: Low Estimate: Ripple effect impacts (£m, 2015 prices)			
	Wage impact	Non-wage labour cost impact	Total cost
21-24 year old rate	43.5	8.8	52.3
Development rate (18-20 year olds)	36.3	7.3	43.6
Youth rate (16-17 year olds)	3.6	0.7	4.4
Apprentice rate	3.3	0.7	3.9
Total Option 1	**86.7**	**17.5**	**104.2**

Central scenario estimate

Our central scenario estimate of the overall impacts of the LPC NMW rate recommendations is for a total cost to employers of £301.9 million over 2 years. This is a transfer with a neutral net economic impact. It is made up of £251.2 million of increased wages for employees, and £50.7 million of increased employer pension and national insurance contributions. This is based on the assumption that wages would increase at half of the OBR's average hourly earnings forecast in the absence of an increase in the NMW rates. Totals may not match due to rounding.

We estimate that 575,000 employees will be covered by the new rates at the mid-point of the appraisal period.

The following tables provide a detailed breakdown of these impacts for each individual rate.

Table 6A: Central Estimate: Coverage and total cost (£m, 2015 prices)

	Coverage	Total wage impact	Non-wage labour cost impact	Total cost
21-24 year old rate	338,000	150.1	30.3	180.5
Development rate (18-20 year olds)	152,000	84.0	17.0	100.9
Youth rate (16-17 year olds)	30,000	4.9	1.0	5.9
Apprentice rate	55,000	12.2	2.5	14.6
Total Option 1	**575,000**	**251.2**	**50.7**	**301.9**

Note: (i) cost estimates include sum of direct and ripple effect costs; (ii) coverage is defined as all those paid at or below the NMW rate.

Table 6B: Central Estimate: Direct impacts (£m, 2015 prices)

	Wage impact	Non-wage labour cost impact	Total cost
21-24 year old rate	111.0	22.4	133.5
Development rate (18-20 year olds)	50.2	10.1	60.3
Youth rate (16-17 year olds)	1.6	0.3	1.9
Apprentice rate	8.9	1.8	10.7
Total Option 1	**171.7**	**34.7**	**206.4**

Table 6C: Central Estimate: Ripple effect impacts (£m, 2015 prices)

	Wage impact	Non-wage labour cost impact	Total cost
21-24 year old rate	39.1	7.9	47.0
Development rate (18-20 year olds)	33.8	6.8	40.6
Youth rate (16-17 year olds)	3.3	0.7	4.0
Apprentice rate	3.2	0.7	3.9
Total Option 1	**79.4**	**16.0**	**95.5**

High scenario estimate

Our high scenario estimate of the overall impacts of the LPC NMW rate recommendations is for a total cost to employers of £376.6 million over 2 years. This is a transfer with a neutral net impact. It is made up of £313.3 million of increased wages for employees, and £63.3 million of increased employer pension and national insurance contributions. This is based on the assumption that wages would not increase in the absence of an increase in the NMW rates.

We estimate that 722,000 employees would be covered by the new rates under this scenario. By way of comparison, the LPC estimate that coverage of the current NMW rates (given the introduction of the National Living Wage), will be 450,000[18].

The following tables provide a detailed breakdown of these impacts for each individual rate.

Table 7A: High Scenario Estimate: Coverage and total cost (£m, 2015 prices)

	Cover age	Total wage impact	Non-wage labour cost impact	Total cost
21-24 year old rate	450,000	195.6	39.5	235.1
Development rate (18-20 year olds)	180,000	99.0	20.0	119.0
Youth rate (16-17 year olds)	34,000	5.7	1.2	6.9
Apprentice rate	58,000	13.0	2.6	15.6
Total Option 1	**722,000**	**313.3**	**63.3**	**376.6**

Note: (i) cost estimates include sum of direct and ripple effect costs; (ii) coverage is defined as all those paid at or below the NMW rate.

Table 7B: High Scenario Estimate: Direct impacts (£m, 2015 prices)

	Wage impact	Non-wage labour cost impact	Total cost
21-24 year old rate	161.6	32.6	194.2
Development rate (18-20 year olds)	65.6	13.3	78.9
Youth rate (16-17 year olds)	2.4	0.5	2.9
Apprentice rate	9.8	2.0	11.8
Total Option 1	**239.4**	**48.4**	**287.8**

Table 7C: High Scenario Estimate: Ripple effect impacts (£m, 2015 prices)

	Wage impact	Non-wage labour cost impact	Total cost
21-24 year old rate	33.9	6.8	40.7
Development rate (18-20 year olds)	33.4	6.7	40.1
Youth rate (16-17 year olds)	3.4	0.7	4.1
Apprentice rate	3.2	0.6	3.8
Total Option 1	**73.9**	**14.9**	**88.8**

[18] Low Pay Commission Spring 2016 Report, Table 7.2

Net cost to business

We separate the impact on the private and public sectors in order to calculate the EANDCB for our central estimate. We do this by calculating what proportion of workers eligible for each rate are in the public sector and what proportion are in the private sector, and then we multiply this by the overall cost and coverage estimates above. A full breakdown is provided in Annex 2.

Using the IA Calculator, we estimate that the equivalent annual direct impact on business is net -£90.2 million. This is based on our central estimate scenario.

Accommodation offset rate

Accommodation is the only benefit in kind that can count toward minimum wage pay and only up to the accommodation offset limit. The NMW accommodation offset was introduced with the intended purpose of protecting vulnerable workers whose employers might have sought to avoid paying their workers the NMW by levying excessive rent for their accommodation. The provision of accommodation can be mutually beneficial for both employers and workers.

The proposed change to the accommodation offset is an increase from £5.35 to £6.00. This represents a 12% increase. The accommodation offset is a benefit to employers as it allows them to offer a greater amount in benefits in kind to their workers, but its take up is likely to be low. We have not monetised this benefit as it is very uncertain how many employers offer accommodation to workers. An example of where the accommodation offset applies is where an individual works in a hospitality establishment such as a pub and lives above the commercial premises. If their accommodation is also owned by the same business as operates the pub, the accommodation offset applies.

Further considerations

Macroeconomic and fiscal impacts

The government believes that there is zero long-run net fiscal impact from increases in the NMW. Analysis by the Treasury estimates that there is no significant impact on public finances with changes in the NMW, and the net benefits on Public Sector Net Borrowing are very small, not significantly different from zero. The full results of this analysis can be found in the Government evidence to the LPC on the additional assessment 2014 and has therefore not been replicated as part of this Impact Assessment[19].

We expect there to be no employment effects from the increases in the NMW. The LPC's remit is to recommend NMW rates such that the employment prospects of low-paid workers are not damaged and their recommendations are based on a thorough body of evidence. Therefore, we believe that making such an assumption is justified. If there were to be negative employment effects of uprating the NMW, the quantified impacts would be uncertain.

Furthermore, the LPC has evaluated the impact of the NMW extensively and on balance has found no evidence that it has led to significant impacts on employment.

Small and micro business assessment

Impact on small and micro businesses

Table 8 presents our central estimates of the coverage of the NMW rates across different sized businesses. While we estimate that approaching half of all those covered by the NMW rates will be employed in large businesses, there will be disproportionately large rates of coverage for small and micro businesses; for example, we estimate that 24% of employees eligible for these NMW rates in micro businesses will be covered by the rates, compared to 13% of eligible employees of large businesses. Note that these estimates are for coverage as a proportion of workers eligible for each rate; it is not the number of NMW workers as a fraction of <u>all</u> employees of businesses of different sizes.

Table 8: Central Estimate: Coverage by business size

	Coverage	Share of total NMW rates coverage	Employees covered as % all employees eligible
Micro (0-9)	86,000	15%	24%
Small (10-49)	137,000	24%	22%
Medium (50-249)	85,000	15%	17%
Large (250+)	264,000	46%	13%

Note: totals may not match due to rounding

Table 9 provides our central estimate of how the direct cost to businesses will be distributed between firms of differing sizes. Small and micro businesses will account for approximately 36%

[19] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/273345/bis-14-534-national-minimum-wage-government-evidence-for-the-low-pay-commission-on-the-additional-assessment-2014.pdf

of the direct cost impact. This is approximately proportionate to the share of NMW coverage accounted for by small and micro businesses – 39%.

Table 9: Central Estimate: Direct cost by business size (£m, 2015 prices)

	Wage impact	Non-wage labour cost	Total direct cost	Share of direct cost of Option 1
Micro (0-9)	29.4	5.9	35.3	19%
Small (10-49)	27.3	5.5	32.8	17%
Medium (50-249)	27.9	5.6	33.5	18%
Large (250+)	71.6	14.3	85.9	46%
Total Option 1	156.2	31.2	187.4	

Note: Totals may not match due to rounding

The possibility of exempting small and micro businesses

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

An exemption would undermine the objectives of the policy. Our central estimate is that 223,000 employees covered by the new NMW rates would be employed by such businesses – 39% 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 NMW to address the possibility of employers exploiting the vulnerability of certain workers to pay them unacceptably low wages and undercut their competitors.

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 NMW rates, thereby introducing a significant cost of expansion at the threshold between small and medium sized businesses. These effects are particularly acute for the NMW rates because labour costs are generally one of the main costs faced by businesses.

Measures to mitigate the cost impact on business

The annual NMW increases are fully embedded in the UK labour market and has increased regularly for 17 years. The potential annual increase in the NMW rates is expected by businesses that employ workers on the NMW.

The Government is taking several steps to support small businesses. This will help mitigate the cost impact of the NMW increases on small businesses.

- The increase in the Employer Allowance from £2000 to £3000 will benefit up to 500,000 employers and mean that a business will be able to employ up to four people full time on the new National Living Wage without paying National Insurance Contributions. This will also benefit businesses employing NMW workers.

- The cut in corporation tax from 20% to 17% by the end of the Parliament will benefit over a million firms of all sizes and give the UK the lowest rate of corporation tax in the G20.

- Budget 2016 cut the burden of business rates on ratepayers in England by £6.7bn over the next 5 years, cutting business rates for all ratepayers, and ensuring 600k small businesses, occupiers of a third of all properties, will pay no rates at all – a saving of up to £5,900 in 2017-18.

Equalities impact

Section 149 of the Equality Act 2010 requires BIS to have due regard to promoting equality of opportunity, eliminating discrimination, and fostering good relations between groups. The impact of the NMW increases on equalities considerations is considered in full in Annex 3.

Sector impact

Low-pay sectors will be impacted disproportionately by the NMW rate increases. Annex 4 provides a detailed estimate of the coverage of the 21-24 year old NMW rate for a range of low-pay sectors such as social care, retail, and hospitality. A sector breakdown for other rates is not provided because of sample size issues.

As outlined above, we expect there to be no employment effects from the increases in the NMW. The LPC's remit is to recommend NMW rates such that the employment prospects of low-paid workers are not damaged and their recommendations are based on a thorough body of evidence. Therefore, we believe that making such an assumption is justified. The LPC's analysis and evidence gathering focuses heavily on low pay sectors.

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

Enforcement

The NMW is enforced by HMRC on behalf of BIS. HMRC investigates all complaints made to the ACAS Helpline. In addition, HMRC conducts risk-based enforcement in sectors or areas where there is a higher risk of workers not getting paid the legal minimum age. If HMRC investigate an employer that is breaking the NMW law and issues a Notice of Underpayment containing details of the underpayments, the period to which they relate and the workers affected, then the employer will have to pay back the arrears owed to workers, face a financial penalty, and can be publically named and shamed under the NMW Naming scheme, unless it successfully appeals against the Notice of Underpayment.

From 1st April 2016, the Government has doubled the penalties for underpayment from 100% of arrears to 200% of arrears.

We have assumed that there is no change in the cost to the Exchequer of enforcement due to the upratings of the various NMW rates. The Government is increasing the HMRC NMW enforcement budget – to £20 million in 2016/17 – as part of its commitment for all eligible workers to be paid at least the NMW or the new National Living Wage; this is not linked to the individual NMW rate increases recommended by the LPC.

Preferred option

The policy objective being assessed is as follows. The NMW sets a wage floor below which pay cannot fall ensuring protection for low-paid workers, raising wages while also providing incentives to work. The aim when setting the rates is to raise the wages of the low paid as much as possible, while making sure that their employment prospects are not damaged by setting it too high. Each year the NMW rates are revised to ensure that they still meet the policy objectives.

The Government's preferred option is to implement the LPC's NMW rate recommendations. This aims to ensure the NMW rates continue to meet their purpose of protecting workers from exploitation. Option 0 – doing nothing – would not do so.

Implementation

The changes to the NMW regulations will be made by secondary legislation and will come into force on 1st October 2016.

Monitoring and evaluation

The remit for the LPC will continue to include the requirement to "monitor, evaluate and review the levels of the different NMW rates" (see Annex 1). Historically, the LPC's report has included extensive discussion of the impacts of the NMW rates on a range of considerations. In making future recommendations for NMW rate increases, the LPC will carry out extensive monitoring and evaluation of the current rates.

Business impact target

Implementing the LPC's recommended NMW rate increases is out of scope of the better regulation framework as set out in the Better Regulation Framework Manual (1.9.9.viii):

"Operation of period adjustments to an existing regulation or regulatory regime that are intended to maintain the current level of regulation in the face of general wage and price inflation – the adjustment must be provided for in existing legislation, either direct or, for example, through the recommendations of the relevant independent statutory body as set out in that legislation, for instance the Low Pay Commission for the National Minimum Wage."

Annex 1: Remit of the LPC 2016 Spring Report

Note: this is the remit for the LPC recommendations considered in this IA. It is not the current remit for the LPC and its Autumn 2016 recommendations.

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

Annex 2: Public/private sector breakdown

The following table breaks down our central and high scenario estimates of coverage and costs by public and private sector. Totals may not match Table 3 and Table 4 due to rounding.

Table 10: Public and private sector split, total Option 1 (£m, 2015 prices)

	Public sector				Private sector			
	Coverage	Direct cost	Indirect Cost	Total	Coverage	Direct cost	Indirect Cost	Total
Low estimate	39,000	5.2	9.6	14.7	344,000	48.4	94.6[1]	143
Central estimate	58,000	21.3	8.7	30.0	517,000	185	86.8	272
High estimate	73,000	30.1	7.9	38.0	649,000	257.6	80.9	338.5

Note: (i) cost estimates include sum of wage and non-wage labour costs; (ii) coverage is defined as all those paid at or below the NMW rate. Estimates provide as a total for all four NMW rates.

[1] The scale of indirect impacts may be a slight over estimate in the low scenario only. This is due to the shape of the baseline wage distribution (from ASHE 2015) just above the NMW rate present in the raw data. We have not adjusted this out in order to keep modelling approaches consistent across the low, central and high scenarios.

Annex 3: Specific Impact tests

Competition assessment

The NMW 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 NMW will likely be felt are characterised by large numbers of relatively small firms. To the extent that the NMW affects labour costs, these are borne by all employers in a sector.

The NMW is unlikely to hinder the ability and incentive for businesses to compete; and unlikely that the NMW 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 NMW rates have national universal coverage for workers aged 16 to 24 and those in the first year of an apprenticeship working in all sectors and regions. Legally all employers have to pay at least this minimum rate regardless of other social characteristics such as gender, ethnicity or disability.

Gender

We expect women to make up 54% of the workers covered by the new NMW rates and for women to secure 50% of the direct increase in wages.

Table 11A: Central Estimate: Coverage and direct wage increase for men (£m, 2015 prices)

	Coverage	As % of total coverage	Wage increase	As % total wage increase
21-24 year old rate	153,000	45%	53.8	48%
Development rate (18-20 year olds)	68,000	45%	26.5	53%
Youth rate (16-17 year olds)	14,000	47%	0.8	49%
Apprentice rate	28,000	52%	4.9	55%
Total Option 1	263,000	46%	86.0	50%

Note: (i) cost estimates is wage increase to meet new floor only; (ii) coverage is defined as all those paid at or below the NMW rate; (iii) totals may differ due to rounding

Table 11B: Central Estimate: Coverage and direct wage increase for women (£m, 2015 prices)

	Coverage	As % of total coverage	Wage increase	As % total wage increase
21-24 year old rate	185,000	55%	57.3	52%
Development rate (18-20 year olds)	83,000	55%	23.7	47%
Youth rate (16-17 year olds)	16,000	53%	0.8	51%
Apprentice rate	26,000	48%	4.0	45%
Total Option 1	310,000	54%	85.7	50%

Note: (i) cost estimates is wage increase to meet new floor only; (ii) coverage is defined as all those paid at or below the NMW rate; (iii) totals may differ due to rounding

Age

We have not provided a detailed appraisal of the impact on different age groups. This is because the NMW rates are defined in narrow age bands and so the main appraisal in this IA can be readily interpreted as the impact on different age groups.

However, we acknowledge that there are focal point effects. For example, the 21-24 year old rate may act as an anchor for younger workers too. This is discussed in the methodology section above.

The National Minimum Wage Act 1998 only allows different rates for different age groups below the age of 26.[1]

Ethnicity, religion, disability status, and marital status

There are two key challenges when analysing the impacts of the NMW increases on equality considerations.

- The Annual Survey of Hours and Earnings does not capture respondents' key socio-economic characteristics such as ethnicity, religion, disability status, or marital status. We use the Labour Force Survey for this information, but LFS pay estimates are less robust than ASHE.
- The rates apply to specific, narrow age groups and disaggregating these by socio-economic characteristics can yield sample sizes too small to make robust estimates.

In order to have reliable sample sizes, we are only able to provide estimates of the level of the NMW rates relative to median earnings – the 'bite' – for the 21-24 year old rate and at very high levels of aggregation.

The level of the rates relative to median earnings ('bite' of the rate) will be higher for non-white workers, disabled workers, non-married workers, and those with a religious faith that is not Christian.

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

Table 12

Characteristic	Current 'bite'	New 'bite'	Change in bite (+/-)
White	81%	84%	3%
Non-white*	94%	98%	3%
No religion	80%	83%	3%
Christian	81%	84%	3%
Other religion*	96%	100%	4%
Equality Act disabled	93%	97%	4%
Not Equality Act disabled	81%	84%	3%
Married/Cohabiting/Civil Partnership	75%	78%	3%
Non-married	84%	87%	3%

Notes:

* indicates sample size is particularly low (between 30 and 50) and should be treated with caution.

1. The Labour Force Survey is known to underestimate hourly pay so estimates of the bite may be upper bound estimates.
2. Further disaggregations of protected characteristics are not possible due to small sample sizes

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 regardless of their characteristics.

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 NMW rate structure reflects provisions in the Act allowing the rates to vary by age up to the age of 25.

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 NMW 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 NMW 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.

Annex 4: Supplementary coverage estimates by sector, region and full-time/part-time

Table 13: Central Estimate: 21-24 year old rate coverage for different low pay sectors

	Coverage	As % of total coverage
Hospitality	91,000	27%
Retail	85,000	25%
Non-low paying sectors	47,000	14%
Cleaning	16,000	5%
Social care	19,000	6%
Storage	15,000	4%
Childcare	15,000	4%
Food processing	8,000	2%
Hairdressing	8,000	2%
Office work	9,000	3%
Non-food processing	8,000	2%
Leisure	9,000	3%
Transport	5,000	1%
Agriculture	*	*
Textiles	*	*

Note: (i) coverage is defined as all those paid at or below the NMW rate; (ii) totals may differ due to rounding; (iii) * indicates that sample size is too small to be robust

Table 14: Central Estimate: 21-24 year old rate coverage for different regions

	Coverage	As % of total coverage
North West	43,000	13%
Yorkshire & Humber	34,000	10%
East Midlands	30,000	9%
West Midlands	32,000	9%
East	30,000	9%
London	29,000	9%
South East	33,000	10%
Scotland	28,000	8%
South West	27,000	8%
Wales	20,000	6%
Northern Ireland	17,000	5%
North East	14,000	4%

Note: (i) coverage is defined as all those paid at or below the NMW rate; (ii) totals may differ due to rounding.

Table 15: Central Estimate: Total NMW rate coverage for part time and full time workers

	Coverage	As % of total coverage
Full-time	242,000	42%
Part-time	332,000	58%

Note: (i) coverage is defined as all those paid at or below the NMW rate; (ii) totals may differ due to rounding.