

Government evidence to the
Low Pay Commission on the
economic effects of the
National Minimum Wage

NOVEMBER 2007

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Executive summary

The Government welcomes this opportunity to present the Low Pay Commission (LPC) with economic evidence on the National Minimum Wage (NMW) in the LPC's ninth year of operation. This document forms the second half of the Government's annual submission, covering the economic effects of the National Minimum Wage. It should be read in conjunction with the previous Government submission on the non-economic evidence.

It is widely agreed that the National Minimum Wage has been successful and is now firmly established as a key element of UK labour market policy. The Government is determined to keep the National Minimum Wage under close review, and has examined the developing evidence of its economic and labour market impact. The main findings of the Government's assessment on the economic evidence are:

Macroeconomic conditions and outlook

Since the introduction of the minimum wage in 1999 the UK labour market has fared well, with the level of employment increasing by over 2 million. However, employment growth has eased over the last year. While the unemployment rate has improved slightly over this period, it is still above 2005 levels and economic inactivity is increasing. As most forecasters predict economic growth to slow in 2008, labour market outcomes may soften further in the year ahead.

Evidence on pay

The minimum wage has increased faster than average wage and price inflation since its introduction in 1999. As a consequence, the minimum wage as a percentage of the median wage – known as the 'bite' - is now almost 52 per cent, an increase of over 5 percentage points since 1999. The bite is higher for small firms (58 per cent) and the low-paying sectors (ranging from 65 per cent to 87 per cent).

As the NMW has risen, an increasing proportion of employees are earning wages near the minimum wage. There is also evidence of an 'upward ripple' of the NMW to wages in the bottom fifth of the wage distribution. However, this ripple effect dissipates as it moves up the wage distribution, so overall the National Minimum Wage has compressed the lower half of the earnings distribution.

Impact on the labour market

While there has been a slight decline in the share of UK employment in low-paying sectors since 1999, there is no evidence that this is the result of the minimum wage. The trend predates the introduction of the NMW and there are two alternative causes of this phenomenon. It may reflect the UK's transition to higher-value sectors, as a result of an increasingly well-educated workforce and greater competition from emerging economies in lower-value sectors. This is supported by the evidence that it is the tradeable sectors that have generally experienced a declining employment share. Alternatively the trend could be explained by the process of skill-biased technological change.

While UK academic research to date has not found evidence that the adult minimum wage has reduced employment, there has not yet been time for the full impact of the minimum wage upratings from 2003 to 2006 to be seen.

There is some evidence of a small impact of the NMW on hours worked and younger workers.

Developments in the labour market for younger workers

The labour market has proved challenging for some younger workers. The employment rate of 16 and 17 year olds, excluding full-time students, has been declining for some time, although it has improved somewhat over 2007. Lower employment rates may at least partly reflect higher participation in full-time education, which means younger people who are entering the labour market may increasingly be those that will find it most difficult to find employment. However, there continues to be a significant minority of 16 and 17 years olds who are not in employment, education or training. The 18-19 year old age group has also experienced a fall in employment rates, but this drop is much smaller than for their younger counterparts. The labour market outcomes and minimum wage bite of 21 year olds remains more like that of younger workers than those aged 22 or more.

Other issues

Net migration into the United Kingdom has been at historically high levels in recent years, partly reflecting inflows from the A8 accession countries. While net immigration to the UK appears to have peaked in 2004, it remains at historically high levels. Many recent migrants have been employed in lower paid jobs and sectors. While there is not yet evidence of any adverse impact on unemployment, the impact of the recent influx of immigrants on wage growth is more ambiguous. The limited UK research to date suggests that immigration boosts wages of most domestic workers but one study by Dustmann et al (2007) suggests it may also tend to modestly slow wage growth at the bottom of the earnings distribution. This impact is very small and has been more than offset by increases in the minimum wage.

The Government is increasing the current statutory minimum holiday entitlement from 4 weeks to 5.6 weeks (with half of the increase taking effect in October 2007 and the remaining increase to be introduced in April 2009). As a large proportion of those benefiting from the minimum wage will also benefit from the extension of leave, this will have cost implications for many NMW employers.

SECTION 1

Macroeconomic conditions and outlook

Since the introduction of the minimum wage in 1999 the UK labour market has fared well, with the level of employment increasing by over 2 million. However, employment growth has eased over the last year. While the unemployment rate has improved slightly over this period, it is still above 2005 levels and economic inactivity is increasing. As most forecasters predict economic growth to slow in 2008, labour market outcomes may soften further in the year ahead.

The Government's latest assessment of the outlook for the UK economy was published as part of the Government's 2007 Pre-Budget Report (PBR).¹

Economic growth

After dipping to 1.8 per cent in 2005, the annual rate of economic growth rebounded to 2.8 per cent in 2006. This upturn largely reflected a recovery in private sector consumption and business investment, with investment growing at its fastest rate for eight years. These trends have more than offset some slowing in the growth of public sector spending.

Economic growth has picked up even further in 2007, with annual growth running at 3.8 per cent in the first half of the year. Private sector business surveys suggest that this momentum continued in the second half of 2007.

The 2007 Pre-Budget Report forecasts GDP growth of 3 per cent in 2007, slowing to 2 to 2½ per cent in 2008. This is broadly in line with a HMT-compiled summary of independent forecasters (see Table 1.1).²

Table 1.1: Independent forecasts of UK economic outlook

	2005 Actual	2006 Actual	2007 Forecast	2008 Projection
GDP (%)	1.8	2.8	2.9	2.0
Consumer spending (%)	1.5	2.1	2.8	1.8
Unemployment (Q4: m)	0.9	0.9	0.9	0.9
Average earnings (%)	4.1	4.1	4.0	4.0

Source: Office for National Statistics; HMT survey of independent forecasters

GDP, consumer spending and average earnings (including bonuses) are annual average percent growth; unemployment is claimant count.

However, these independent forecasts were compiled in October 2007, when the full effect of global financial market disruption had yet to be felt. An alternative and more recent compilation of independent forecasts by

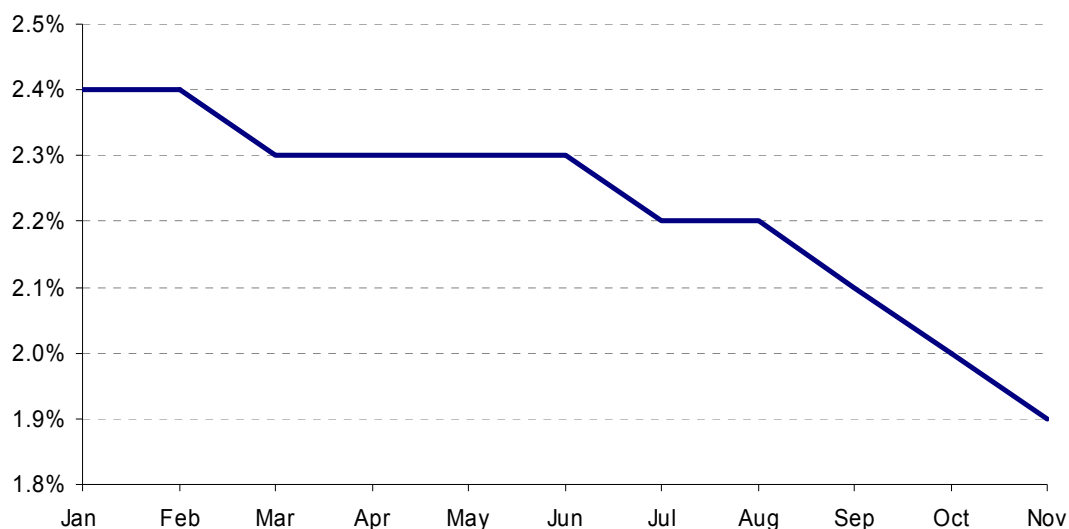
¹HM Treasury (2007) *Pre-Budget Report and Comprehensive Spending Review. Meeting the aspirations of the British people.* October 2007. (http://www.hm-treasury.gov.uk/pbr_csr/pbr_csr07_index.cfm).

² HM Treasury (2007) *Forecasts for the UK economy. A comparison of independent forecasts.* Compiled by the Macroeconomic Prospects Team. No.246 October 2007 (hm-treasury.gov.uk/forecasts).

Consensus Economics in November 2007 shows GDP growth of around 3 per cent for 2007, consistent with HMT forecasts, but expects economic growth to slip to a below-trend 1.9 per cent in 2008, slightly below HMT forecasts.³ Independent growth forecasts for 2008 have been consistently revised downwards over the last year (see Chart 1.1). An easing housing sector, subdued growth in household incomes, tighter credit conditions and slower growth in public spending are the main factors cited for the expected slowdown. However, it must be pointed out that HMT forecasts have consistently outperformed the independent consensus in both current-year and year-ahead GDP growth forecasts over the past ten years.

Chart 1.1: Consensus forecasts for 2008 GDP growth

Annual average per cent change



Source: Consensus Economics

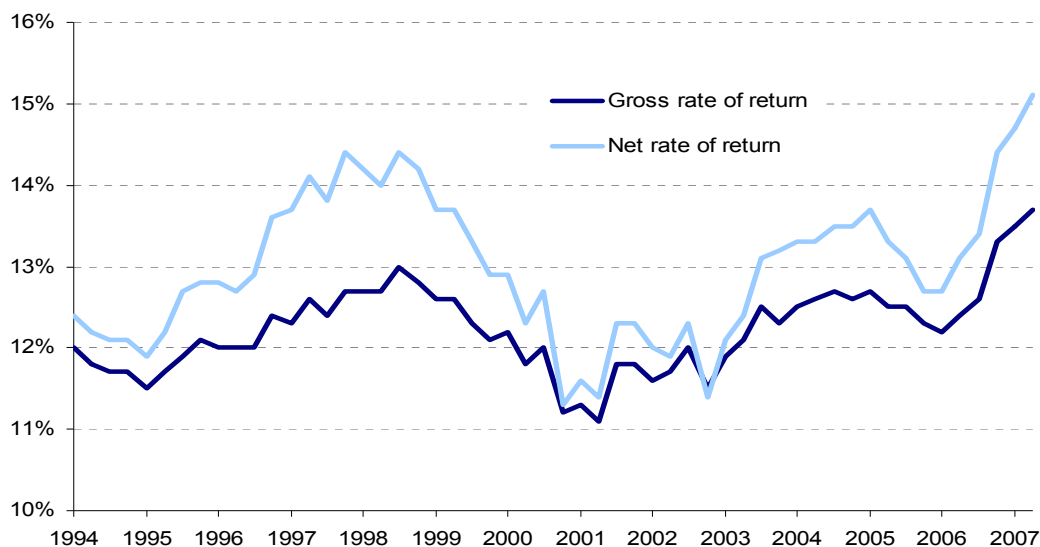
There is also considerable uncertainty around the extent to which the turmoil in financial markets might affect the wider economy. The longer it persists, the greater the risk of it detracting from economic growth. The recent financial market disruption may impact on growth through higher lending rates and reduced credit availability for households and companies; weaker consumer and business confidence; its impact on household wealth and, therefore, spending and weaker international demand for UK exports. Further adding to the downside risks is the uncertainty around the easing of the housing market.

On the positive side, corporate profitability continues to be strong. After a slight dip in 2005-06, UK company profitability increased in the second half of 2006 and first half of 2007 (see Chart 1.2). This should help to cushion the impact of the credit crunch on business investment and employment.

³ *Consensus Forecasts*. Survey date: November 12, 2007.

Chart 1.2: UK company profitability*

Per cent return



Source: Office for National Statistics

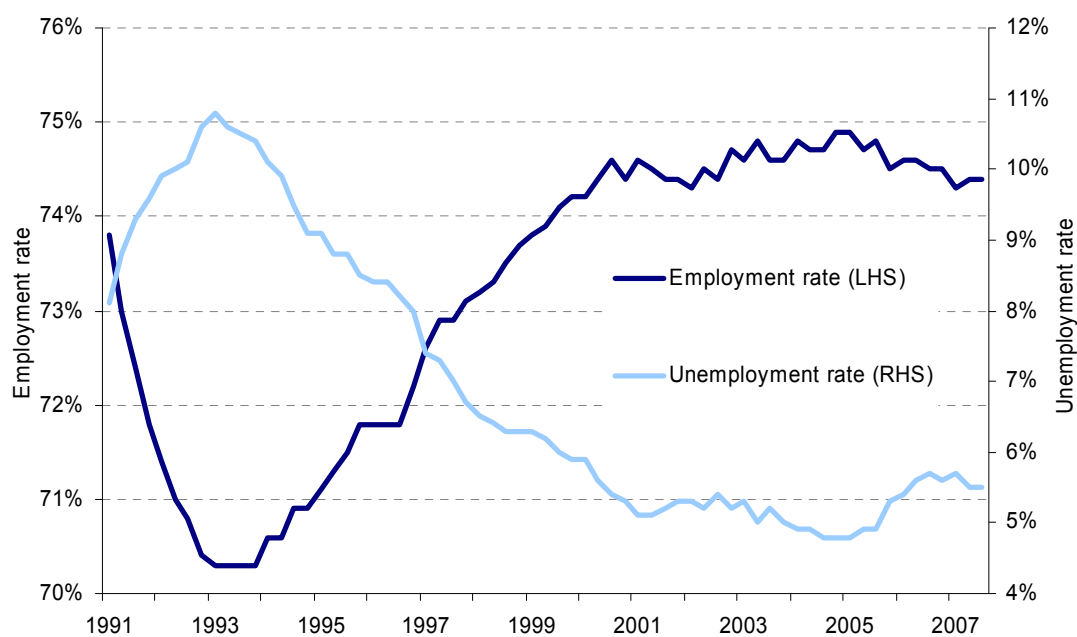
*UK Private Non-Financial Corporations, excluding Continental Shelf Non-Financial Corporations.

The labour market

Since the introduction of the minimum wage in 1999 the UK labour market has fared well. The level of employment has increased by over 2 million. Over the period since 1999 the employment rate has stood at record highs, with the unemployment rate at record lows. However, employment growth has slowed and the employment rate fallen slightly in the year to September 2007 (see Chart 1.3). While it has declined a little over the past year, the unemployment rate is still above its mid-2005 low. Moreover, there is still a considerable flow of people, including prime working age males, into inactivity. The inactivity rate was up 0.2 percentage points in the year to September 2007.

Chart 1.3: UK labour market

Proportion of working age population



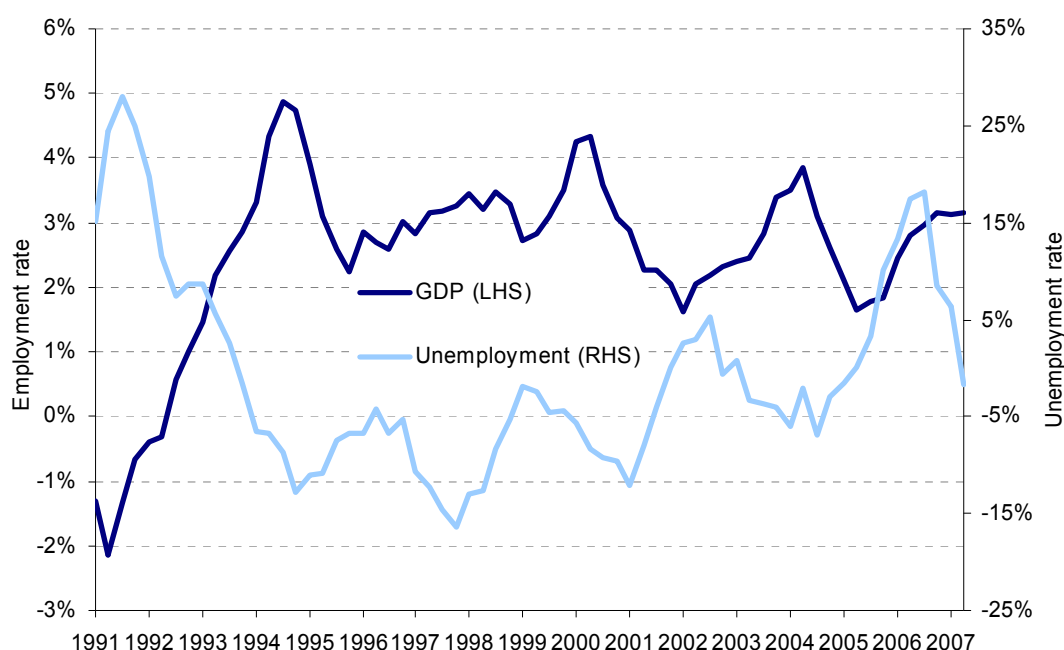
Source: Office for National Statistics, Labour Force Survey

This slow-down needs to be kept in context - the labour market is still performing well relative to recent history. In addition, despite the slowing employment growth, the number of job vacancies continues to climb.

Chart 1.4 shows that falls in unemployment levels slightly lag increases in GDP growth. The increases in unemployment in 2006 were unusual for the prevailing levels of economic growth. With independent forecasters predicting slower economic growth, there is a risk of softer employment growth over the next eighteen months and some increases in unemployment and inactivity.

Chart 1.4: GDP and unemployment growth

Annual per cent change



Source: Office for National Statistics, Labour Force Survey and National Accounts

Average earnings and pay settlements

Average earnings growth in the UK continues to be fairly restrained on most measures (see Table 1.2). After increasing to 3.5 per cent in March 2007, annual growth in median settlements eased back to 3.3 per cent in the September 2007 quarter. Average private sector earnings growth, excluding bonuses, eased to 3.5 per cent the June 2007 quarter, but rebounded back to 3.8 per cent in the September 2007 quarter (see Chart 1.5).

Overall, wage growth remains modest and below the 4.5 per cent level that many external commentators consider the rate consistent with the Bank of England's inflation target. Independent forecasters also expect restrained growth rates in average earnings next year (see Table 1.1). However, the Bank of England has flagged the risk that pay growth may not be sufficiently subdued to offset the impact of higher energy costs and other non-wage costs on inflation.⁴ Therefore, modest earnings growth will be important in enabling monetary policy to ease in response to the weaker economic environment.

⁴ See Bank of England (2007) *Inflation Report*. August and November 2007. (www.bankofengland.co.uk/publications/inflationreport/index.htm).

Table 1.2. Growth in various wage measures

Annual per cent change, June quarter

	2005	2006	2007
Average earnings (incl. bonuses) - all sectors	4.1	3.7	4.0
Average earnings (incl. bonuses) - private sector	4.0	3.5	4.0
Average earnings (incl. bonuses) - public sector	4.6	4.5	4.3
Average weekly earnings (experimental)	4.7	4.4	5.5
Average weekly earnings (LFS)		3.8	5.0

Sources:

AEI & Average Weekly Earnings (Experimental) – Office for National Statistics, Monthly Wages and Salaries Survey.

(Note: The AWE is an experimental series published on the Web one week after the AEI. Both the AEI and AWE use the same data source, the Monthly Wages and Salaries Survey. The AEI is a measure of the growth in average earnings, derived by calculating the growth in the weighted average pay for businesses responding to the survey in successive months (the 'matched' sample). The AWE, on the other hand, is a measure of the level of average earnings, derived by separately weighting the earnings and employment data for the sampled businesses in each month and then calculating the ratio. The growth in AWE can be calculated and compared with the growth in AEI.)

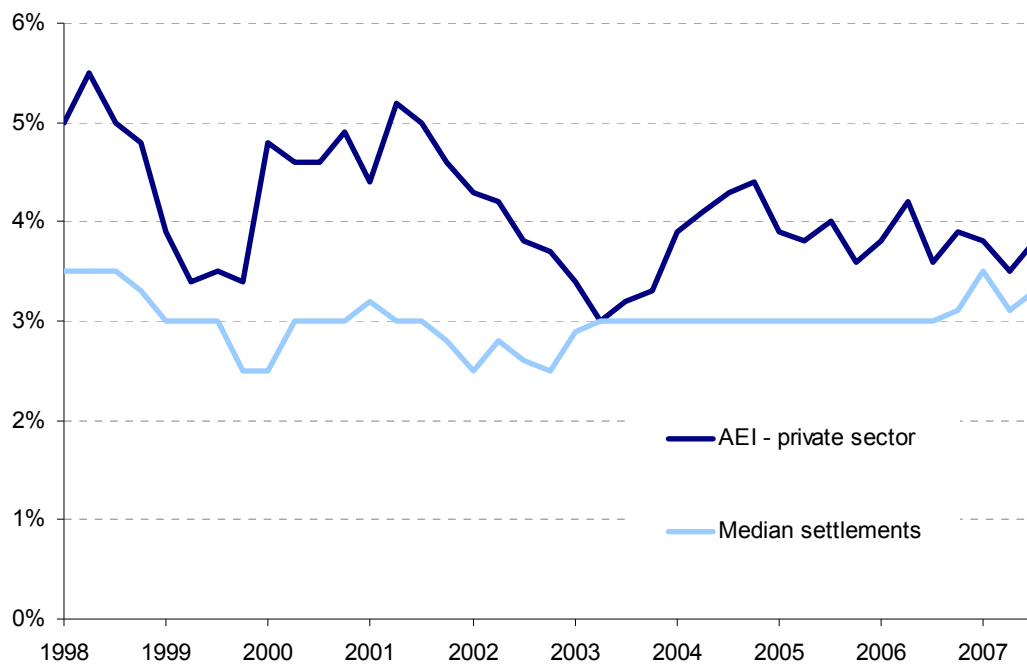
Average Weekly Earnings (LFS) – Office for National Statistics, Labour Force Survey.

(Note: Gross weekly and earnings data are known to be underestimated in the LFS. This is principally because of proxy responses.)

Unit Labour Costs – Office for National Statistics

Chart 1.5: Average annual earnings growth and pay settlements

Annual per cent change



Source: Office for National Statistics, Average Earnings Index (excluding bonuses); Median settlement (IRS data)

SECTION 2

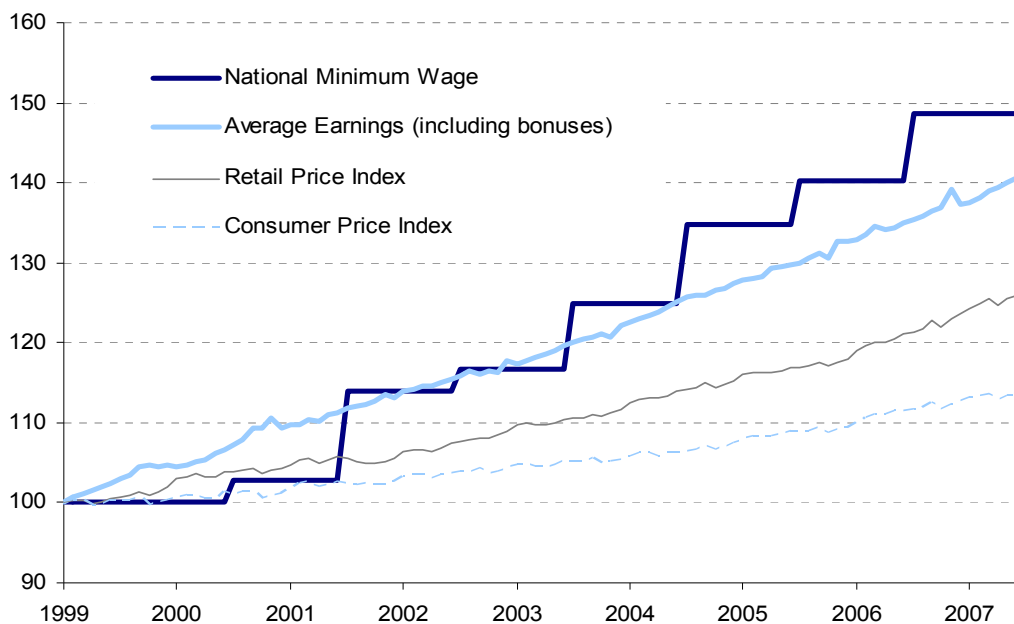
Evidence on pay

The minimum wage has increased faster than average wage and price inflation since its introduction in 1999. As a consequence, the minimum wage as a percentage of the median wage – known as the ‘bite’ - is now almost 52 per cent, an increase of over 5 percentage points since 1999. The bite is higher for small firms (58 per cent) and the low-paying sectors (ranging from 65 per cent to 87 per cent). As the NMW has risen, an increasing proportion of employees are earning wages near the minimum wage. There is also evidence of an ‘upward ripple’ of the NMW to wages in the bottom fifth of the wage distribution. However, this ripple effect dissipates as it moves up the wage distribution, so overall the National Minimum Wage has compressed the lower half of the earnings distribution.

Growth in the National Minimum Wage

The National Minimum Wage has increased substantially faster than both average earnings and prices, especially since 2001. Since it was introduced in April 1999 the NMW has risen by almost 50 per cent. In comparison, the Average Earnings Index has risen by only around 40 per cent (see Chart 2.1) between April 1999 and end September 2007. The Retail Price Index has increased by around 25 per cent over the same period, while the Consumer Price Index rose by almost 14 per cent. However, the October 2007 NMW rise of 3.2 per cent was less than the latest annual earnings growth of 4.1 per cent.⁵

Chart 2.1: NMW increases compared to earnings growth and inflation
Index: 1999 = 100

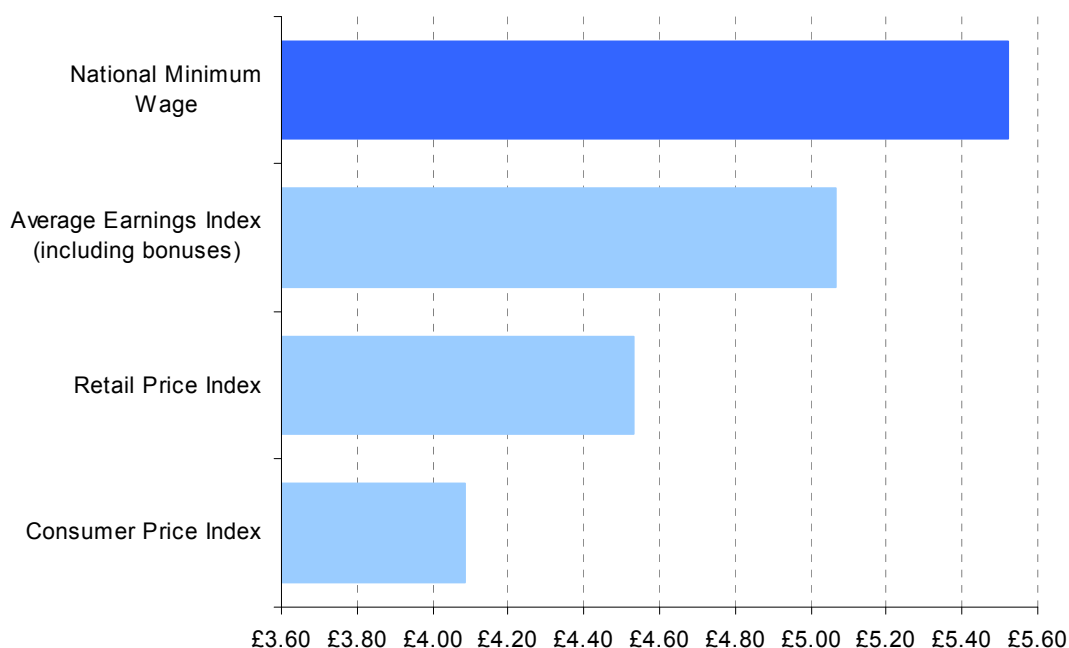


Source: Office for National Statistics

⁵ This is Average Earnings Index growth, including bonuses – the three months to September 2007 compared to the three months to September 2006.

Another way of looking at NMW growth is to compare the actual National Minimum Wage with what it would have been if it grew in line with average earnings or prices. The National Minimum Wage was increased to £5.52 in October 2007. If the initial rate of £3.60 had instead been indexed to average earnings, the October 2007 rate would have been £5.06. If it had been indexed to the Retail Price Index it would have been £4.53 and if indexed to the Consumer Price Index it would have been £4.08 (see Chart 2.2). However, reflecting a cautious approach, the NMW was initially set at a relatively low level and therefore increases above inflation and average earnings may have been expected in its early years.

Chart 2.2: NMW indexed to earnings growth and inflation*



Source: BERR estimates; Office for National Statistics

*AEI, RPI and CPI Index as at end of September 2007. NMW rate as at October 2007.

The bite of the minimum wage

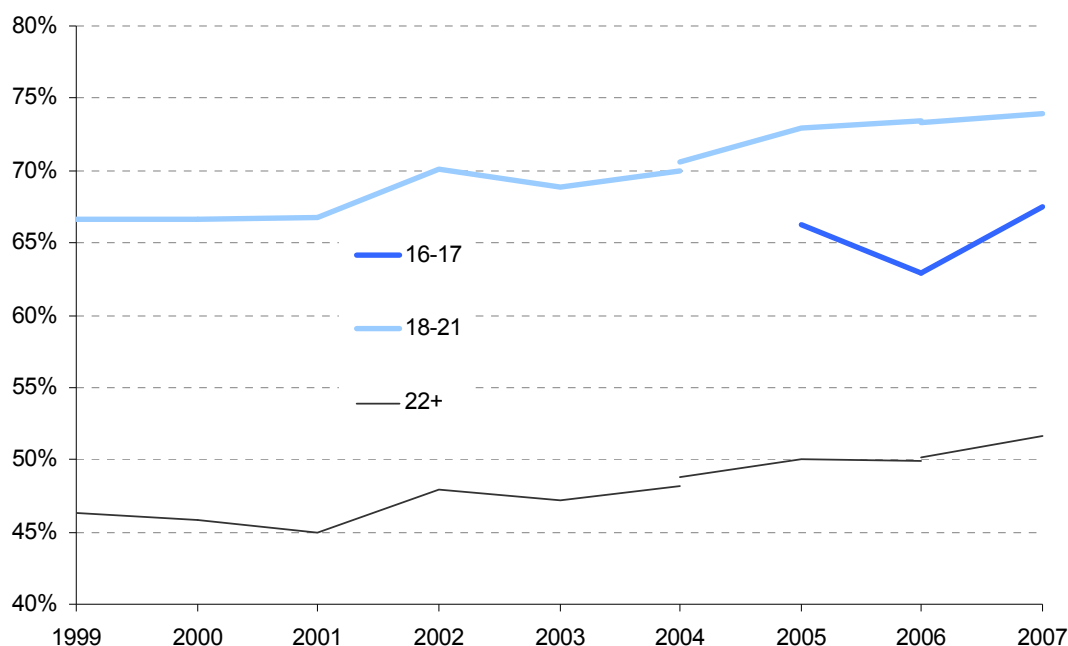
The minimum wage as a proportion of average earnings is often termed the 'bite' and is a measure of how high up the earnings distribution the NMW cuts in. Usually median earnings are the preferred measure of average earnings. Since its introduction the bite of the adult NMW has increased from 46.4 per cent of the median wage to 51.6 per cent in April 2007 (see Chart 2.3).

Therefore, the bite has increased by 5.2 percentage points since the NMW was introduced in 1999. It increased by 1.4 percentage points between April 2006 and 2007, reflecting the October 2006 increase in the adult minimum wage. This bite estimate does not include the October 2007 uprating in the minimum wage, as we do not yet have median earnings data for this period. However, the October 2007 minimum wage increase was slightly less than the most recent average earnings growth, suggesting the bite should be broadly stable between 2007 and 2008.

The rate for 18-21 year olds also continued to increase, reaching almost 74 per cent of the median in 2007. There was a big jump in the 16-17 year old bite due to the uprating to £3.30 in October 2006. Their bite increased from 63 per cent in Spring 2006 to around 68 per cent in Spring 2007.

Chart 2.3: The bite of the NMW

Minimum wage as a per cent of median earnings



Source: Office for National Statistics, Annual Survey of Hours and Earnings
1999-2004 ASHE data - excluding supplementary information
2004-2006 ASHE data - old methodology
2006-2007 ASHE data - new methodology
See Annex H for further information on the changes to ASHE data.

International comparisons of the bite

Chart 2.4 provides a comparison of the bite with other countries. These comparisons are limited by differences in data methodologies. In particular, it is not possible to obtain data on median hourly earnings for many countries, so international comparisons are based on mean hourly earnings.

However, on the available evidence, the UK bite is very close to the unweighted average of the countries included in Chart 2.4, with the US having a significantly lower figure and several of the European countries having a higher bite than the UK. It is also around the OECD average.

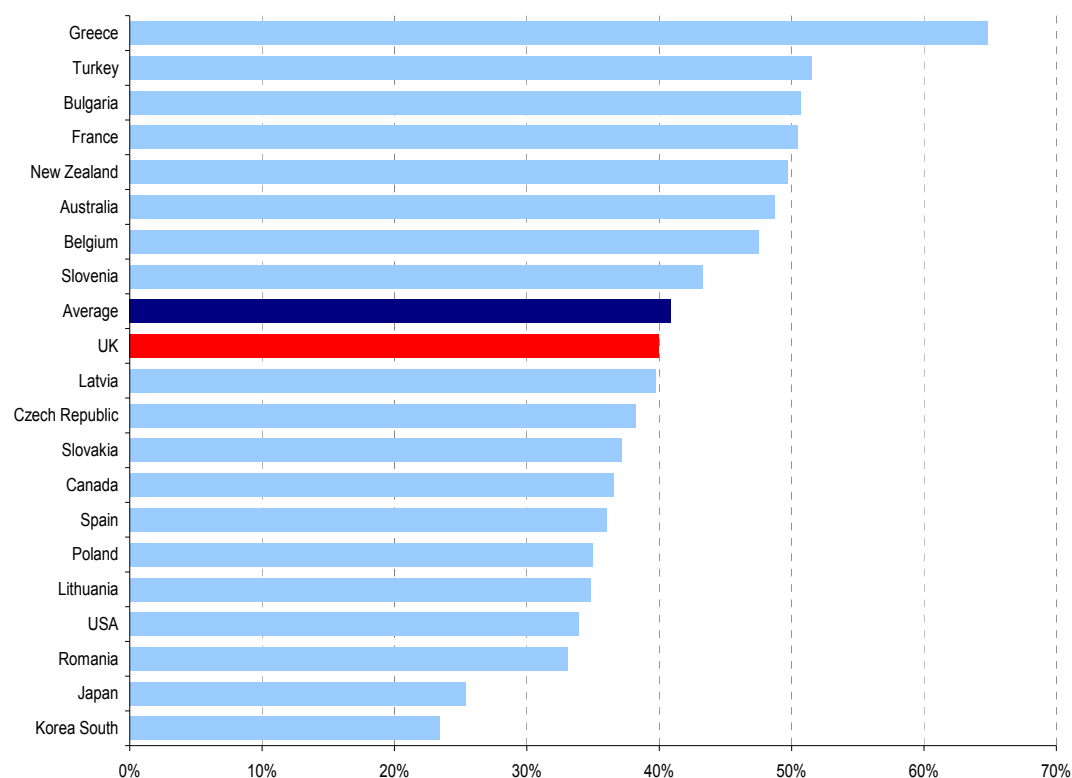
In addition, the UK minimum wage is actually one of the highest in the OECD when adjusted for purchasing parity (see Chart 2.5).⁶ The annual “take home” pay from working full-time in a minimum wage job, after adjusting for purchasing power, is also among the highest in the OECD.⁷ However, these purchasing parity figures should be treated only as a rough guide as they are sensitive to the assumptions used and can be buffeted by exchange rate fluctuations.

⁶ Purchasing power parity is a method measuring the relative purchasing power in different countries' currencies over the same type of goods and services. Because goods and services may cost more in one country than in another, PPP allows us to make more accurate comparisons of standards of living across countries.

⁷ According to OECD (2007) *Economic Survey: United Kingdom*. This is adjusting for taxes and benefits for low-paid workers.

Chart 2.4: International comparisons of the minimum wage bite

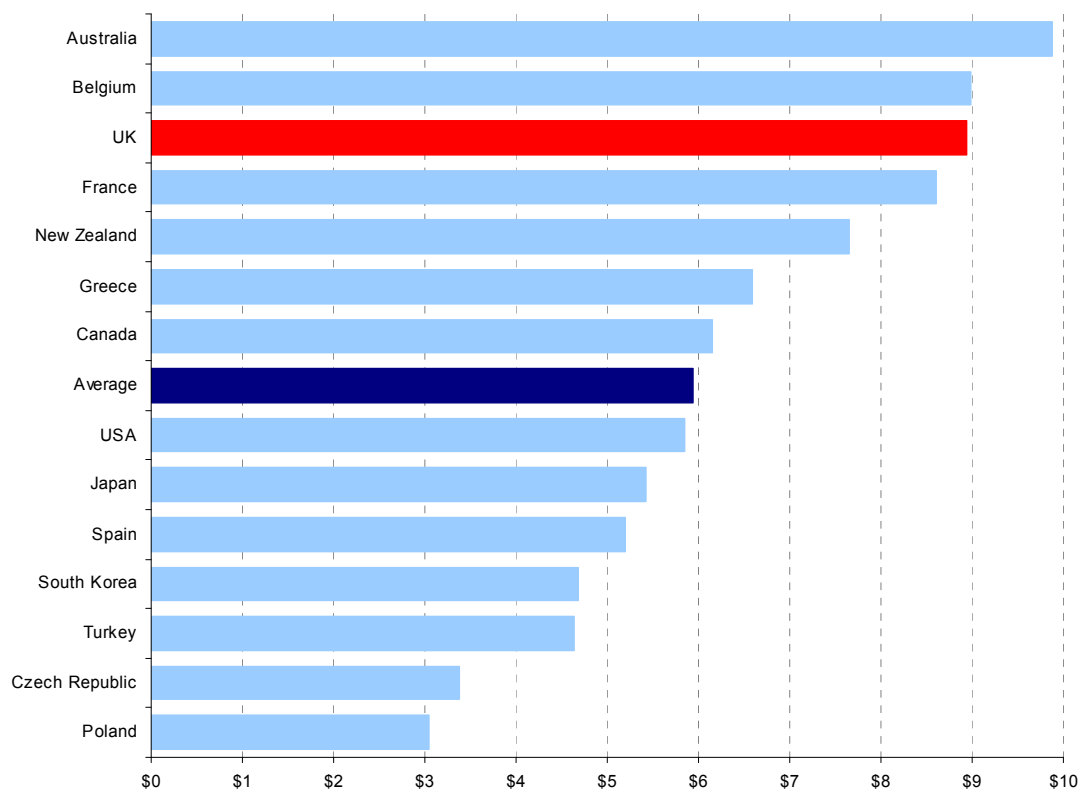
Per cent of mean earnings



Source: Various (see Annex C)

Chart 2.5: International comparisons of the minimum wage

NMW in US Dollar Purchasing Power Parity (PPP) terms



Source: Various (see Annex C)

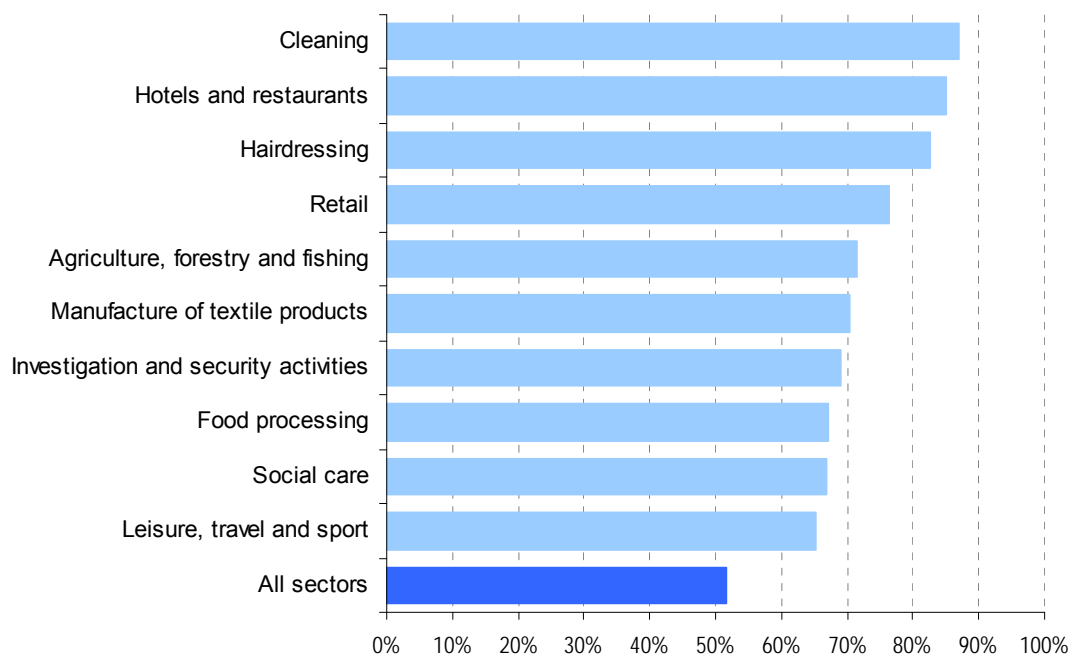
PPP assumptions use 2006 PPP in national currency units per US Dollar. Taken from the OECD (<http://www.oecd.org/dataoecd/61/54/18598754.pdf>). In some cases, we have had to convert a monthly, weekly or daily minimum wage to an hourly rate. In doing so we have assumed a 40 hour week and a 250 day working year.

The minimum wage and low paid sectors

The minimum wage is more likely to impact on employment in those sectors that are more reliant on low-wage workers. The LPC defines a number of sectors as being 'low-paid', which employ large numbers of people earning near the NMW.⁸ The adult bite is much higher in these sectors, with an unweighted average bite of around 74 per cent. The bite ranges from 65 per cent of the median in leisure, travel and sport to 87 per cent in cleaning (see Chart 2.6). In addition, some of the largest low-paid sectors such as retail trade and hotels and restaurants, have some of the biggest bites at 76 per cent and 85 per cent respectively.

Chart 2.6: The bite of the NMW in low-paid sectors

Adult minimum wage as per cent of median wage, 2007



Source: Office for National Statistics, Annual Survey of Hours and Earnings
Those aged 22+.

There is some empirical evidence that the increasing NMW is impacting on profitability (see Annex F). In addition, increasing minimum wages may put pressure on public sector budgets. For example, Annex F highlights that the NMW has increased running costs and reduced profitability of social care homes. While Local Authority fees have not fully compensated care homes for these cost increases, there is likely to be pressure for increases or risks of a decline in the quality of care.

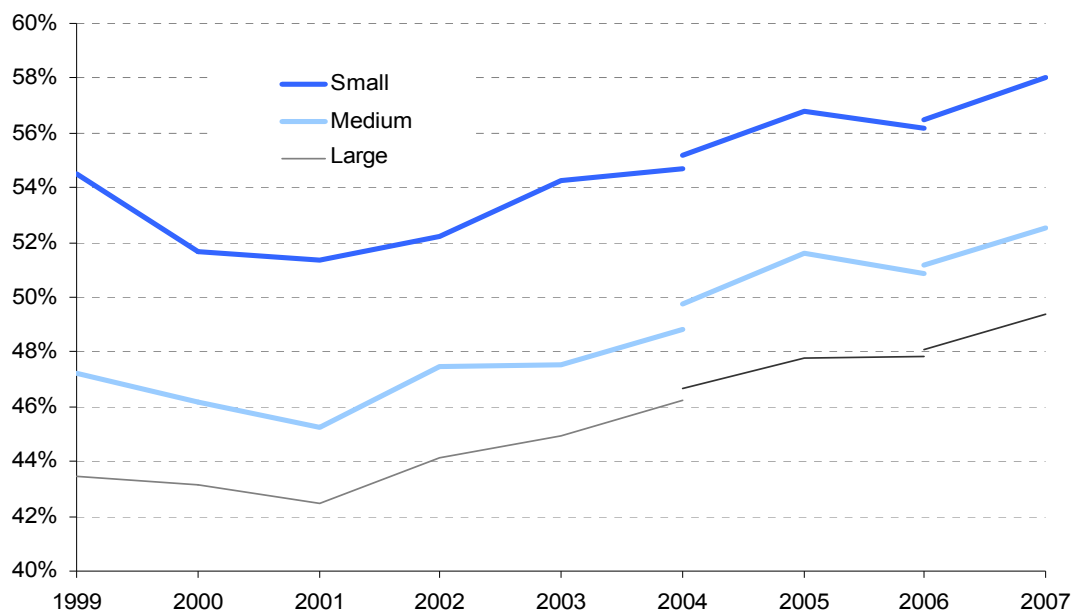
The bite for small firms

Chart 2.7 highlights that the minimum wage as a per cent of the median wage tends to be higher for smaller firms than for medium and larger firms. The bite for smaller firms was over 58 per cent in 2007, compared to around 52 per cent for medium sized firms and 46 per cent for larger firms. This highlights that the minimum wage is having a greater impact on the costs and profitability of smaller firms.

⁸ Defined as hotels and restaurants; cleaning; hairdressing; retail; agriculture, forestry and fishing; investigation and security activities; manufacture of textile products; food processing; social care; leisure; and travel and sport.

Chart 2.7: The bite of the NMW by organisation size*

Adult minimum wage as per cent of median wage



Source: Office for National Statistics, Annual Survey of Hours and Earnings

1999-2004 ASHE data - excluding supplementary information

2004-2006 ASHE - old methodology

2006-2007 ASHE - new methodology

*Small organisations are defined as 1 to 49 employees, medium as 50-249 employees and large is 250 + employees.

See Annex H for further information on the changes to ASHE data.

Those aged 22+.

Proportion of employees earning the minimum wage

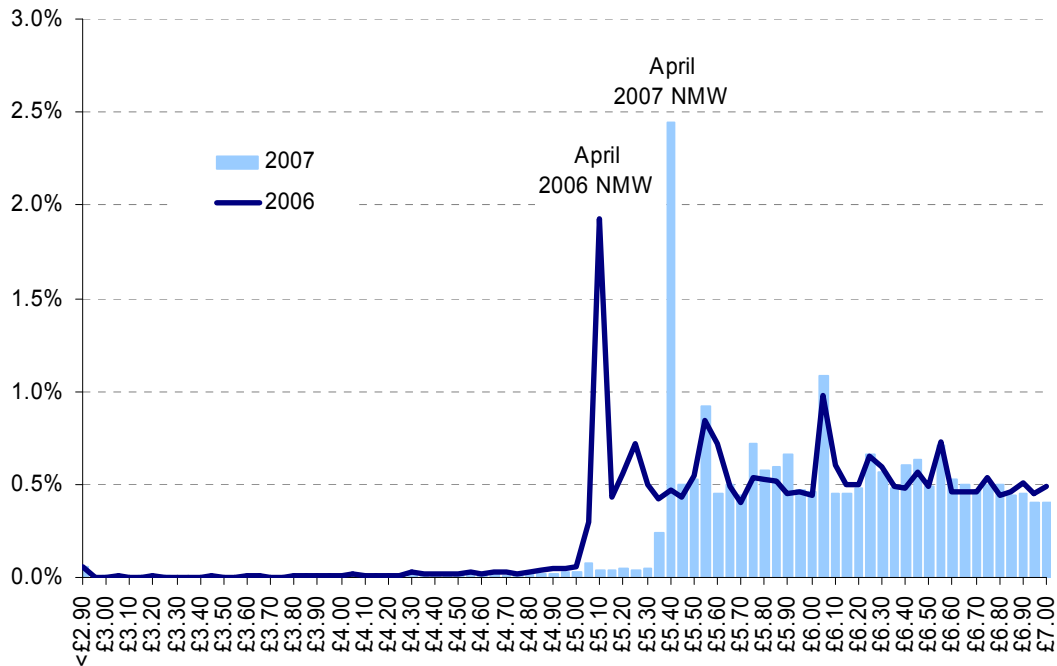
Chart 2.8 shows the proportion of adult jobs at different points across the hourly pay scale in 2006 and 2007. It highlights a jump in the distribution of adult hourly pay at the point where the minimum wage cuts in. In particular, the uprating of the adult minimum wage from £5.05 to £5.35 in October 2006 resulted in this spike moving from the old rate to the new higher rate between April 2006 and 2007.

There has also been a rise in the number of jobs paying the NMW as it increases relative to median wages. The number of jobs earning the NMW increased from 1.9 per cent in 2006 to 2.4 per cent in 2007. If the NMW continues to grow faster than median or average earnings, it will become the wage-setting mechanism for an increasing proportion of the workforce.

A similar effect can be seen for the Development Rate, paid to 18–21 year olds. Chart 2.9 shows a spike in the distribution of hourly pay around the Development Rate of £4.45 which prevailed in April 2007. However, there has actually been a slight fall in the number of employees who earn the Development NMW (from 3.0 per cent in 2006 to 2.9 per cent in 2007). This at least partly reflects the larger proportion of 18-21 year olds who were being paid at the adult NMW rate in 2006 (7.2 per cent in 2007 compared to 6.1 per cent in 2006). In total, 81 per cent of employee jobs for those aged 18-21 were paid at or above the adult NMW in 2007.

Chart 2.8: Adult low-pay distribution, April 2007

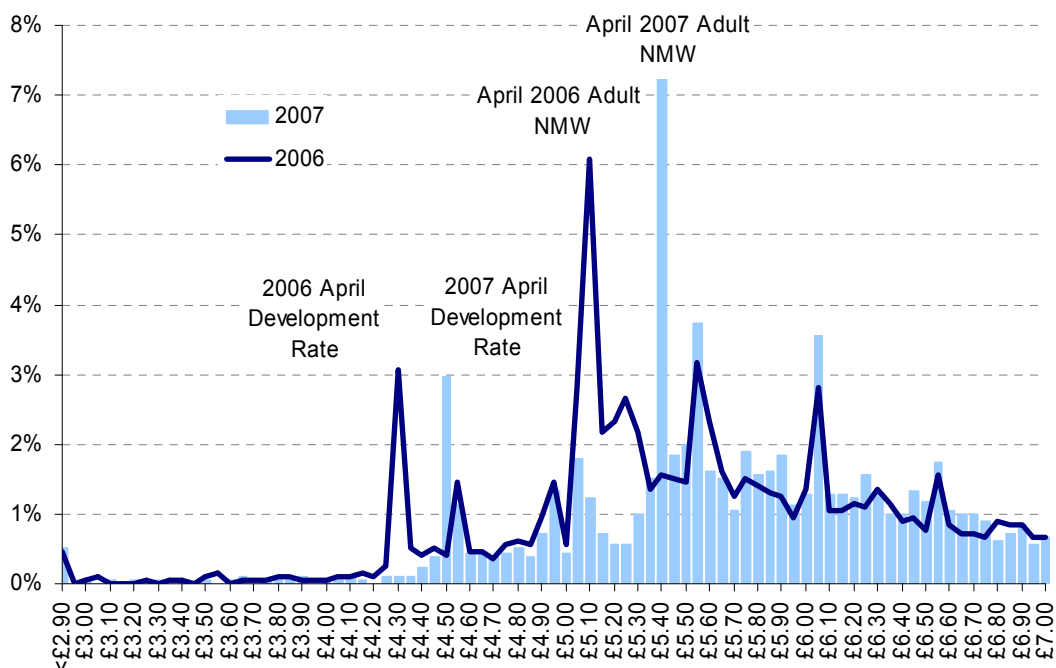
Per cent of adult jobs (22 years or older)



Source: Office for National Statistics, Annual Survey of Hours and Earnings

Chart 2.9: 18-21 year old low-pay distribution, April 2007

Per cent of 18-21 year old jobs



Source: Office for National Statistics, Annual Survey of Hours and Earnings

The numbers of jobs paying less than the National Minimum Wage rates

Relatively few employees would be expected to be paid below the relevant minimum wage rate. It is of critical importance to the Government that everyone entitled to the National Minimum Wage actually receives their entitlement. The Government has announced its intention to introduce new penalties for all employers who underpay the National Minimum Wage and a

fairer system of paying arrears. These measures will be included in the Employment Bill announced in the Queen's Speech 2007.⁹

However, not all those that are paid less than the NMW reflect non-compliance. There are a number of circumstances where the National Minimum Wage does not apply and so individuals may legitimately earn less than the appropriate National Minimum Wage rate for their age. For example, individuals may be on Government training programmes or apprenticeships, where they are exempt for the first year, up to the age of 26. Employees may also not be receiving the National Minimum Wage in cash terms because employers can legitimately reduce rates to take into account the cost of accommodation provided, for which there is a standard level of deduction.

According to the latest Office for National Statistics (ONS) estimates of low pay based on data from the new ASHE survey in Spring 2007, there were 292,000 jobs held by people aged 16 or over paying less than the appropriate National Minimum Wage rate. This is equivalent to 1.2 per cent of all UK jobs, and is a decrease of around 6,000 on the revised April 2006 estimate.¹⁰ This comprised of 16,000 jobs held by 16-17 year olds, 45,000 jobs held by 18-21 year olds and 231,000 jobs held by those 22 and older.

Table 2.1 provides more details of the proportion of jobs paid at hourly wage rates less than the prevailing National Minimum Wage rate. It should be noted that these estimates are approximate, and subject to revision. For example, the previous estimate for 2006 of 1.3 per cent of jobs was subsequently revised down to 1.2 per cent in the 2007 ASHE release.

Part-timers have benefited by more than full-timers. Between 1998 and 2007, the number of jobs held by part-time workers earning below the National Minimum Wage rate fell from 14.1 per cent of part-time jobs to 2.1 per cent. This compares with a decline in the number of jobs held by full-time workers earning below the National Minimum Wage rates from 2.4 per cent in 1998 to 0.8 per cent in 2007.

⁹ See BERR (2007) *Government non-economic evidence to the Low Pay Commission* (www.berr.gov.uk/employment/pay/national-minimum-wage/Evidence-Low_Pay-Commission/page21634.html).

¹⁰ Note the 2006 ASHE showed that 336,000 people were paid below the National Minimum Wage. However, this figure was revised substantially reflecting new information from HMRC regarding the age of employees. This highlighted that some of the employees who appeared to be paid below the adult NMW were 16-17 or 18-21 and, therefore, earned above the respective NMW rates for their ages.

Table 2.1. Proportion of UK jobs paid below minimum wage

		1998*	1999	2000	2001	2002	2003**	2004	2005	2006	2007
All		5.6	2.1	1	1	1.4	1	1.1	1.2	1.2	1.2
All (18+)		5.6	2.1	1.0	1.0	1.4	1.0	1.1			
All (16+) ^{***}									1.2	1.2	1.2
All 16-17									4.0	3.8	4.1
All 18-21		7.2	2.4	2.2	2.1	2.7	2.3	2.3	3.0	2.3	2.5
All 22+		5.4	2.1	0.9	0.9	1.3	0.9	1.0	1.0	1.0	1.0
All men		2.9	1.4	0.6	0.7	0.8	0.7	0.9	1.0	0.9	0.9
All women		8.4	2.8	1.3	1.4	2.0	1.4	1.4	1.4	1.4	1.4
Men	full-time	1.8	0.8	0.3	0.3	0.5	0.4	0.7	0.9	0.7	0.7
	part-time	14.4	7.0	4.0	4.4	4.4	3.5	2.5	2.2	2.4	2.2
Women	full-time	3.6	1.1	-	-	0.7	0.5	0.8	0.9	0.9	0.8
	part-time	14.1	4.9	2.3	2.5	3.6	2.4	2.1	2.1	2.2	2.1
All full-time		2.4	0.9	0.4	0.3	0.5	0.4	0.8	0.9	0.8	0.8
All part-time		14.1	5.3	2.6	2.8	3.7	2.6	2.2	2.1	2.2	2.1

Source: Annual Survey of Hours and Earnings (ASHE); Office for National Statistics

Notes:

- Sample size too small for reliable estimate.

* Figures for 1998, before the NMW was introduced, are for jobs paid less than £3.00 p/h (aged 18-21) or £3.60 p/h (aged 22 and over).

** Estimates for 1998-2003 are based on a central estimate of the LFS and ASHE.

*** Before 2005 the estimates are for employees aged 18 and over, from 2005 the estimates are for those aged 16 and over.

Number of jobs paid at less than £3.00 per hour (aged 18-21) or £3.60 per hour (aged 22 and over) for 1998 to 2000.

Number of jobs paid at less than £3.20 per hour (aged 18-21) or £3.70 per hour (aged 22 and over) for 2001.

Number of jobs paid at less than £3.50 per hour (aged 18-21) or £4.10 per hour (aged 22 and over) for 2002.

Number of jobs paid at less than £3.60 per hour (aged 18-21) or £4.20 per hour (aged 22 and over) for 2003.

Number of jobs paid at less than £3.80 per hour (aged 18-21) or £4.50 per hour (aged 22 and over) for 2004.

Number of jobs paid at less than £3.00 per hour (aged 16-17) or £4.10 per hour (aged 18-21) or £4.85 per hour (aged 22 and over) for 2005.

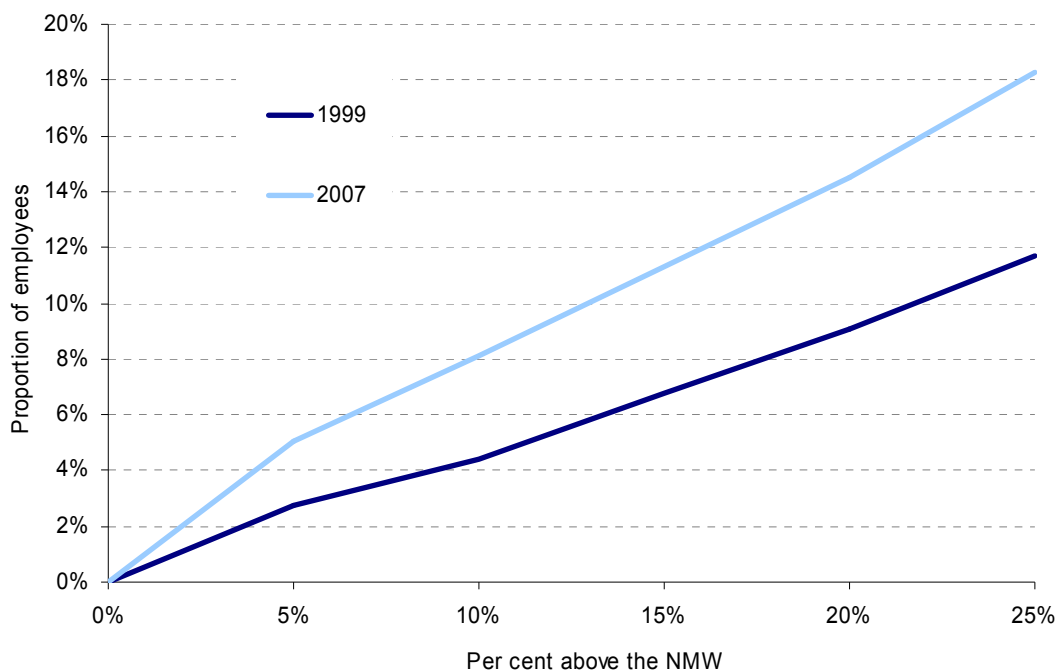
Number of jobs paid at less than £3.00 per hour (aged 16-17) or £4.25 per hour (aged 18-21) or £5.05 per hour (aged 22 and over) for 2006.

Number of jobs paid at less than £3.30 per hour (aged 16-17) or £4.45 per hour (aged 18-21) or £5.35 per hour (aged 22 and over) for 2007.

Compression of the earnings distribution

As the NMW increases relative to median earnings, there is an increase in both the proportion of employees earning the minimum wage and those earning relatively close to it. For example, around 9 per cent of employees worked between the NMW and 20 per cent above it in Spring 1999. This had increased to over 14.5 per cent by Spring 2007 (see Chart 2.10). In the low-paying sectors these proportions are higher, with around 33 per cent of employees in these sectors being paid within 20 per cent of the NMW (up from around 21 per cent in 1999).

Chart 2.10: Proportion of employees earning within a certain per cent above the NMW



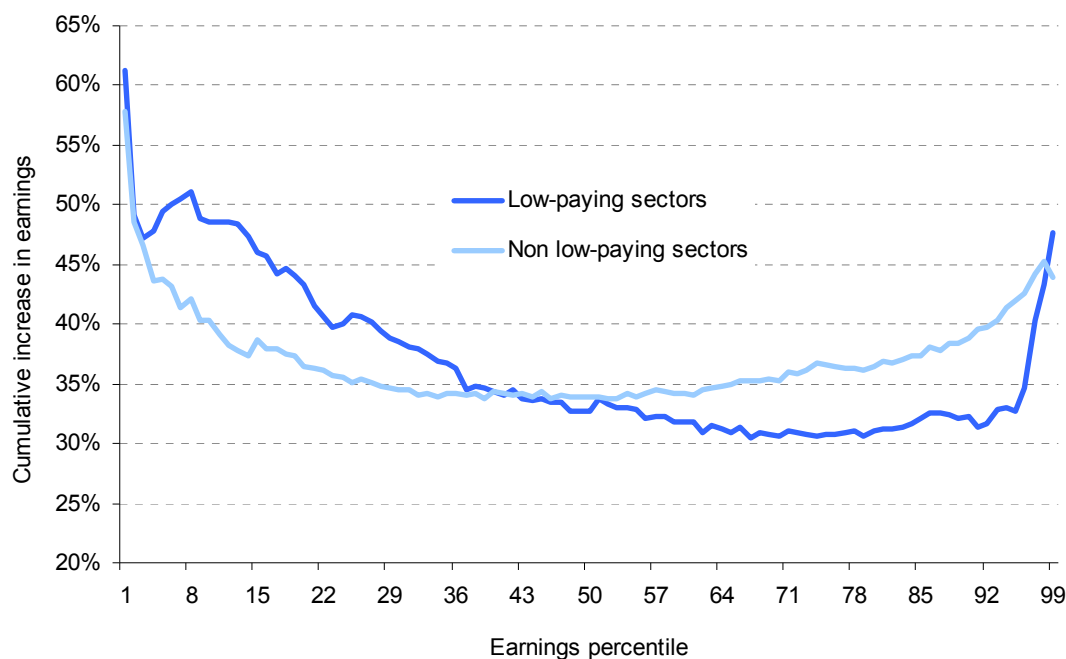
Source: Office for National Statistics, Annual Survey of Hours and Earnings
1999 - ASHE data - excluding supplementary information
2007 - ASHE data - new methodology
See annex H for further information on the changes to ASHE data.

In addition, the introduction and uprating of the NMW has not just benefited the bottom few per cent of employees. There has been an ‘upward ripple’ effect, with NMW increases influencing pay scales for at least the bottom one fifth of the workforce. Chart 2.11 shows the increase in hourly pay across the earnings distribution, from the lowest to highest income earners, between 1999 and 2007 for both the low-paying and non low-paying sectors. It highlights that employees at the lower end of the pay scale have received larger percentage increases in their pay than those at the middle or top end over this period, particularly employees working in the low-paying sectors. This trend appears to be continuing. In the most recent 2007 ASHE data, the earnings growth for full-time employees of the bottom decile increased by 3.5 per cent compared with a growth of 2.8 per cent for the top decile. These upward ripple effects mean a growing number of employees’ wages are influenced by the NMW when it increases faster than average earnings growth.

This ripple effect dissipates as it moves up the wage distribution so overall the National Minimum Wage has compressed the lower half of the earnings distribution (see Annex F). There are risks that this compression may damage incentives for employees’ progression within low-paying organisations. However, the ripple effect means that compression is less within the lowest fifth of the earnings distribution (see Annex F) where the risks of disincentives are greatest.

Chart 2.11: Cumulative increase in earnings by percentile, 1999-2007

Per cent increase



Source: Office for National Statistics, Annual Survey of Hours and Earnings
1999 - ASHE data - excluding supplementary information
2007 - ASHE data - new methodology
See annex H for further information on the changes to ASHE data.

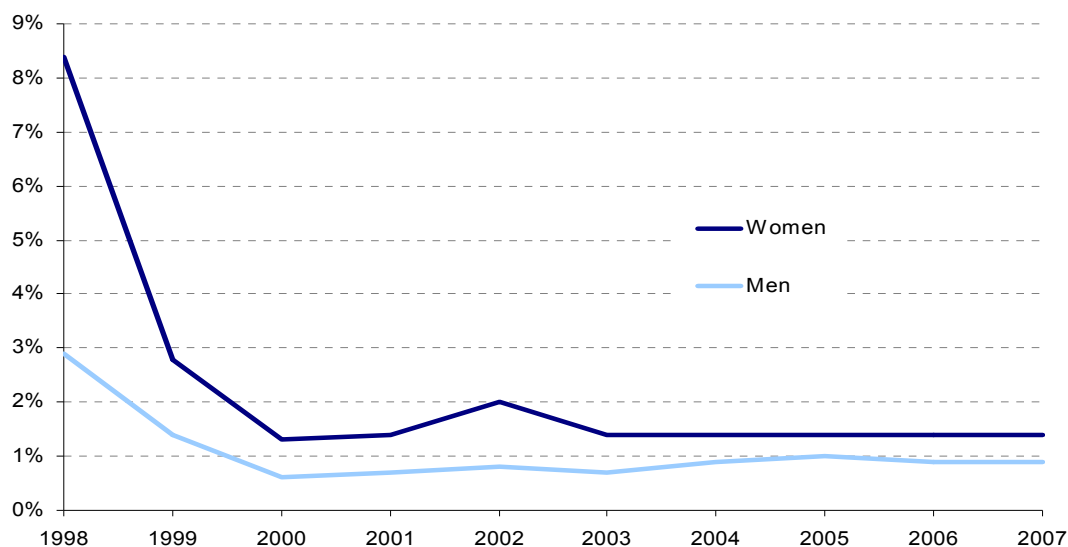
Incentives for progression also depend on interactions with the tax and benefit system. Although some families face high Marginal Deduction Rates (MDRs) as a result of the combination of taxation and the withdrawal of benefits, substantial improvements have been made in recent years. In 1998 740,000 families faced MDRs of over 70 per cent. In reforming the tax benefit system to improve incentives to progress in work, the Government has reduced the number of families on MDRs by over 70 per cent to 195,000. These changes mean that many low paid workers now receive more in disposable income from a given pay rise than they did 10 years ago. The MDR faced by different workers varies according to household composition and circumstances as well as the number of hours worked, but all workers earning the minimum wage will be better off as a result of an increase.

Gender wage gap

While not the underlying purpose for the introduction of the National Minimum Wage, it has helped reduce gender inequality as more females than males have been lifted up to a higher wage rate. Chart 2.12 shows that the number of jobs held by women paid less than the NMW fell from 8.4 per cent (940,000 women) in 1998 to 1.4 per cent in 2007 (175,000 women), while the number of men fell from 2.9 per cent (340,000 men) in 1998 to 0.9 per cent in 2007 (118,000 men).

Chart 2.12: Female and male jobs earnings less than the NMW

Per cent of total jobs



Source:

Estimates for 1998 to 2003 are based upon the central estimate of the LFS and ASHE.

2004+ based on ASHE.

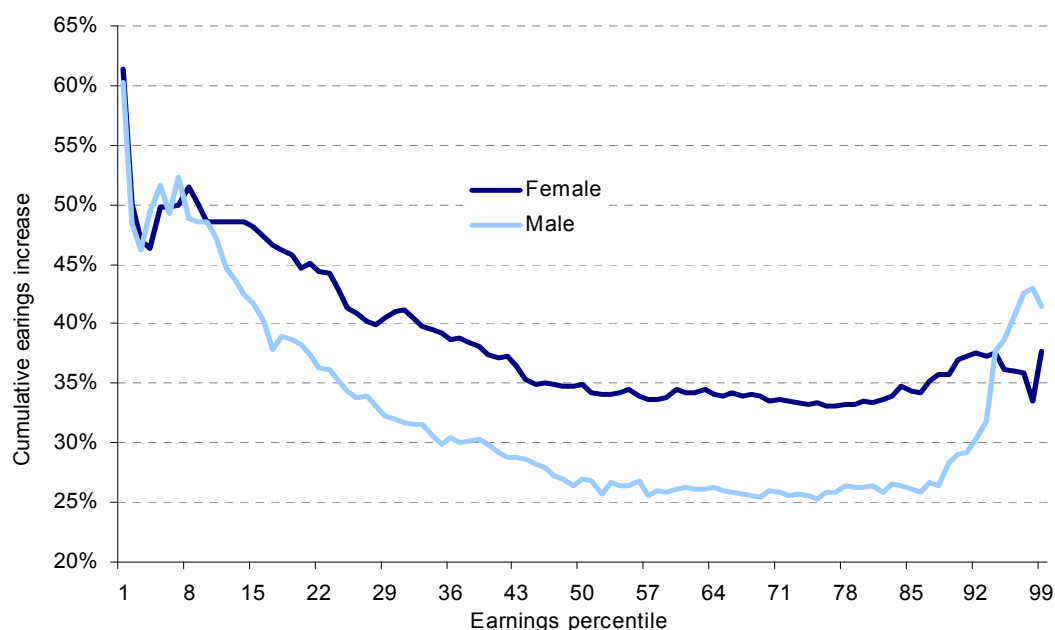
1998-2004 data covers those earnings less than the 18-21 year old rate and the adult rate. 2005 onwards also includes those earnings less than the 16-17 year old rate.

Not seasonally adjusted.

Chart 2.13 also highlights that female earnings have grown faster than male earnings in the low-pay sectors at almost all parts of the wage distribution since the introduction of the NMW in 1999. The exception is the top decile, where the gender wage gap continues to widen. This chart shows similar growth in the bottom deciles as once the NMW was introduced, there was no gender pay gap at this level - men and women receive the same rate.

Chart 2.13: Cumulative increase in earnings by percentile for low paying sectors, 1999-2007

Per cent change



Source: Office for National Statistics, Annual Survey of Hours and Earnings

1999 - ASHE data - excluding supplementary information

2007 - ASHE data - new methodology

See Annex H for further information on the changes to ASHE data.

SECTION 3

Impact on the labour market

While there has been a slight decline in the share of UK employment in low-paying sectors since 1999, there is no evidence that this is the result of the minimum wage. The trend predates the introduction of the NMW and there are two alternative causes of this phenomenon. It may reflect the UK's transition to higher-value sectors, as a result of an increasingly well-educated workforce and greater competition from emerging economies in lower-value sectors. This is supported by the evidence that it is the tradeable sectors that have generally experienced a declining employment share. Alternatively the trend could be explained by the process of skill-biased technological change.

While UK academic research to date has not found evidence that the adult minimum wage has reduced employment, there has not yet been time for the full impact of the minimum wage upratings from 2003 to 2006 to be seen. There is some evidence of a small impact of the NMW on hours worked and younger workers.

A very simple economic model might suggest that in a competitive labour market a minimum wage set above the market-clearing wage will tend to reduce employment opportunities for the low skilled. In reality this is only one way in which the minimum wage might affect the labour market. Other effects that do not result in unemployment are equally plausible. For example, if the labour market is not highly competitive, firms may hold employment levels down to keep wages relatively low. While there are often a large number of employers in low-paying industries, labour market frictions can still provide employers with some degree of market power. These include the lack of perfect information on possible alternative jobs, the costs of moving between employers and different preferences amongst workers for jobs which differ in terms of factors such as the type of work, working conditions, or the job location.

In these circumstances a minimum wage may have no detrimental impact on employment levels and can actually lead to higher employment. Indeed the empirical evidence in the UK has generally found no significant evidence of adverse employment effects from the introduction of the National Minimum Wage, with a much smaller range of estimates for the effects of the minimum wage on employment than in the US (see Annex F). However, the caveat to these findings is that there has not yet been time for the full impact of the relatively larger rise in the minimum wage from 2003 to 2006 to be seen. In addition, the employment impact of the minimum wage may only emerge over the longer-term as employers adjust their business models.

This chapter reviews the most recent data on employment from the Labour Force Survey (LFS) and the Annual Survey of Hours and Earnings (ASHE) for any emerging employment trends. As the NMW obviously affects low-paying

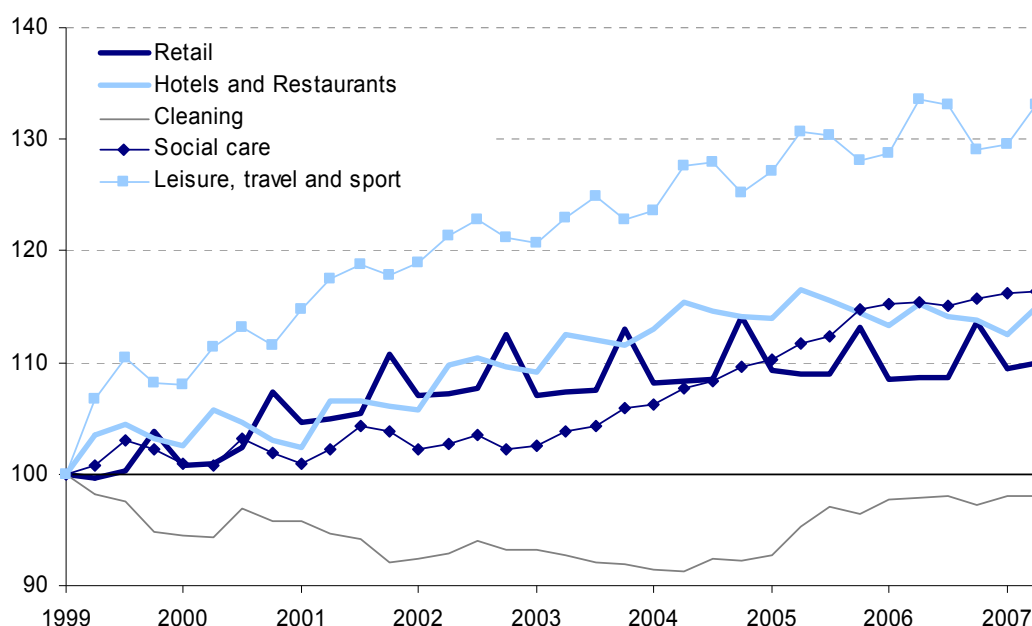
sectors more than other sectors, there is a particular focus on them.¹¹ However, we must be cautious in drawing conclusions from such a broad analysis of data trends, as it is not possible to directly attribute any changes to the National Minimum Wage rather than other factors.

Employment in low-paying sectors

Total employment in the low-pay sectors has been increasing since the introduction of the minimum wage in 1999. The number of jobs in the low-paying sectors has increased by 612,000 (7.8 per cent), compared to an overall jobs increase of 2.2 million (9 per cent) in the eight years to 2007. The largest job increases have been in the retail sector (up 309,000) and in hotels and restaurants (up 233,000), the two largest low-paying sectors. But the largest percentage rise (33 per cent) has been in leisure, travel and sport, as Chart 3.1 shows.

Chart 3.1: Jobs in major low-paying sectors since 1999

Index 1999 Q1 = 100



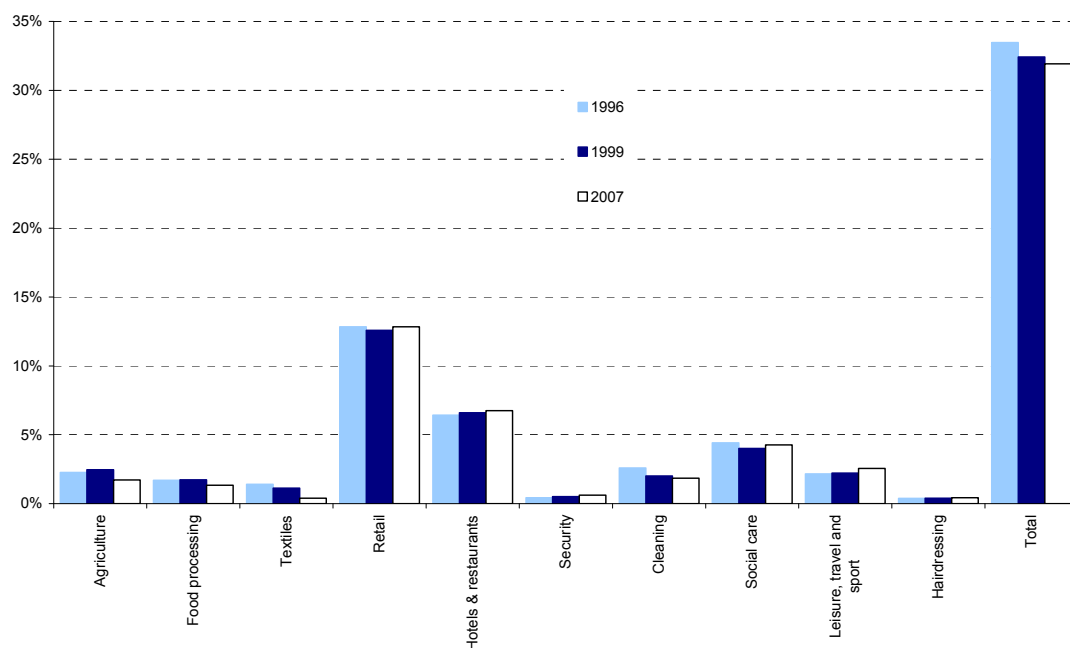
Source: Office for National Statistics, Employee jobs

Employment in the low-paying sectors has tended to grow more slowly than other sectors between 1999 and 2007. As a consequence, the share of the low-pay sectors in total employment has also fallen slightly; by about half a percentage point between June 1999 and 2007 (see Chart 3.2). However, this is a relatively small drop and is likely to have been affected by a number of factors other than the minimum wage. In particular, as the intensification of global economic competition from emerging economies accelerates the shift in the sectors in which the UK is competitive towards high knowledge and value-added sectors, we would expect to see some relative falls in employment in the low paying sectors. It is notable that the non-tradeable sectors of retail and hotels and restaurants are showing a less consistent fall in employment share over the same period. Alternatively the trend could be explained by the process of skill-biased technological change.

¹¹ Defined as hotels and restaurants; cleaning; hairdressing; retail; agriculture, forestry and fishing; investigation and security activities; manufacture of textile products; food processing; social care; leisure; and travel and sport.

Chart 3.2: Low pay sectors share in total employment

Per cent of total employment, March quarter

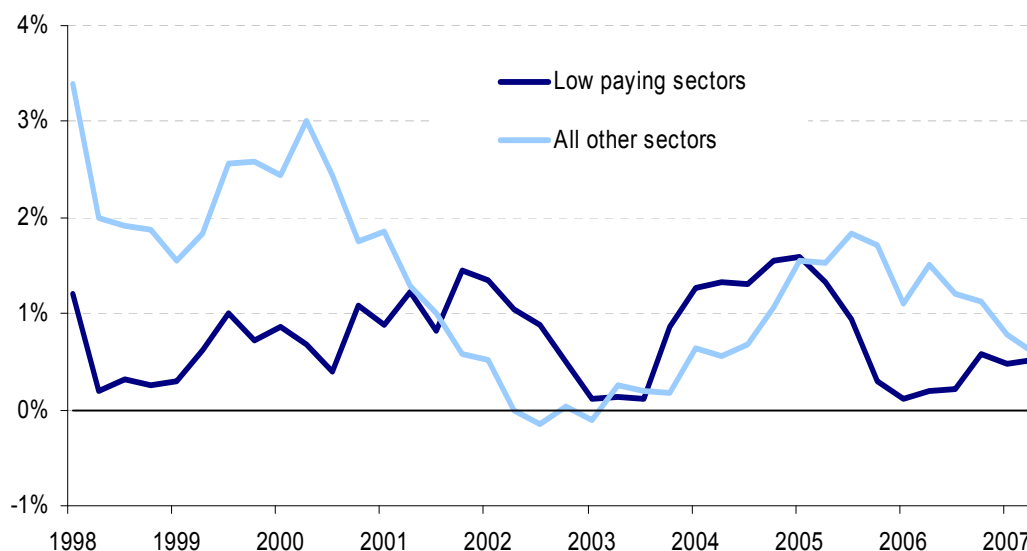


Source: Office for National Statistics, Employee jobs

In addition, since the minimum wage began to rise more rapidly in 2001, job growth in the low-paying sectors has tended to match that in the rest of the economy (see Chart 3.3). More recently, job growth in the low paying sectors declined much more rapidly than overall job growth in 2005 and recovered slightly over 2006. While still very weak, the most recent data shows annual job growth in the low-paying sectors as only slightly lower than in the overall labour market. However, it is likely to decline further in line with overall employment growth (see section one).

Chart 3.3: Annual jobs growth

Annual per cent change

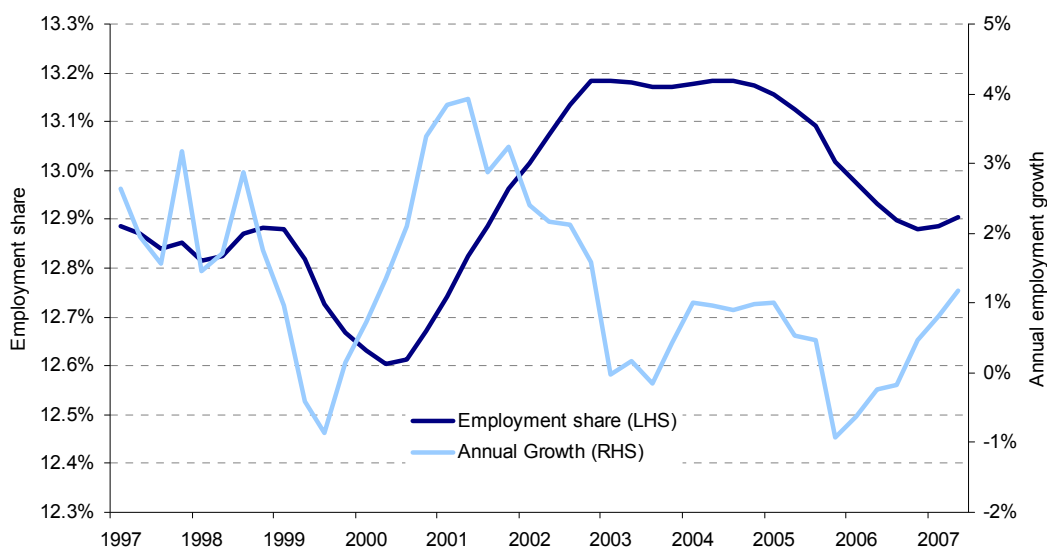


Source: Office for National Statistics, Employee jobs

The modest recovery in low-pay employment since mid-2006 reflects a pick-up in employment in retail which, as a large sector, has a big impact on overall employment growth rate for the low-pay sectors. After suffering declining

employment for most of 2006, retail employment growth recovered to 1.2 per cent in the year to June 2007 (see Chart 3.4).

Chart 3.4: Annual jobs growth and share in retailing

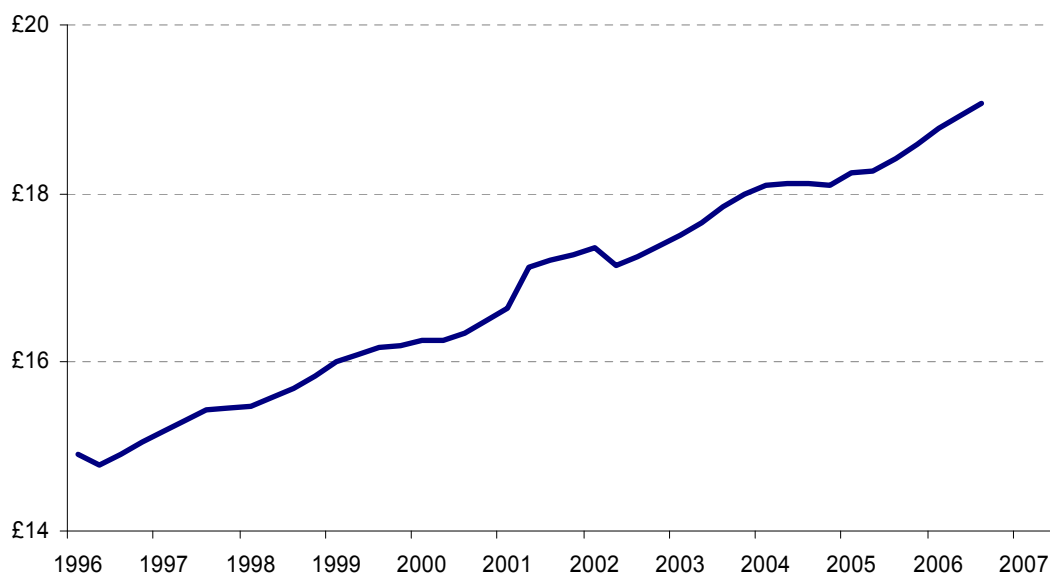


Source: Office for National Statistics, Employee jobs and Retail Sales Index

Part of the reason for weaker growth in retail employment relative to all sectors is the gradual but steady improvement in retail productivity. Chart 3.5 highlights that retail sales per employee have been increasing since at least 1996.

Chart 3.5: Retail sales per employee

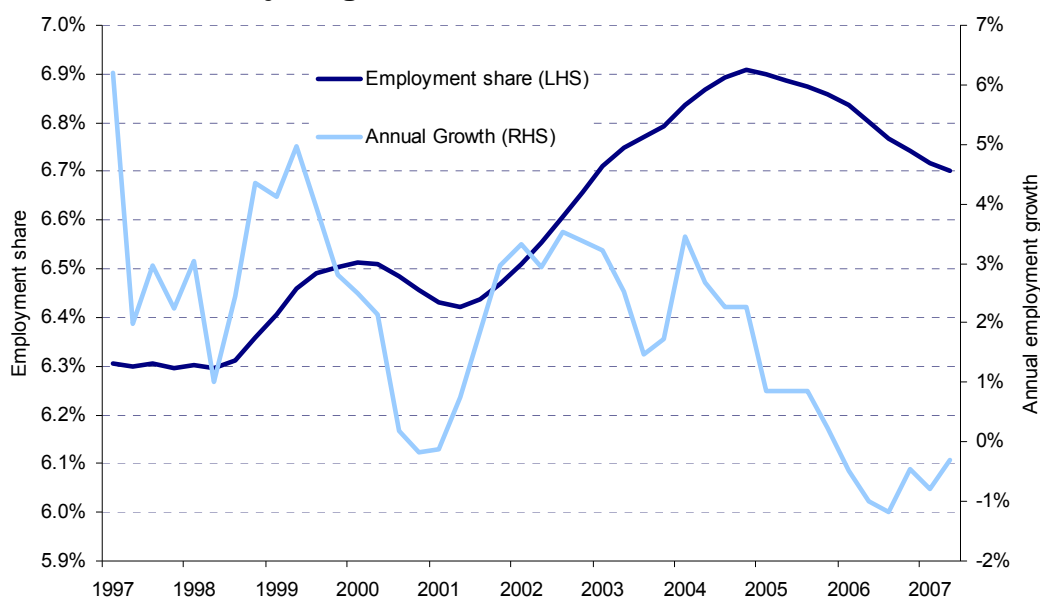
Pound millions per quarter



Source: Office for National Statistics, Employee jobs; ONS Monthly Survey of Distribution Services Sector

Hotels and restaurants have partly offset the recent improvement in retail, with a continued decline in employment. Jobs in hotels and restaurants fell by around 5,000 in the year to June 2007 (see Chart 3.6). However, the rate of decline did ease significantly.

Chart 3.6: Annual jobs growth and share in hotels and restaurants



Source: Office for National Statistics, Employee jobs

Looking forward, employment growth in the low-paying sectors is likely to be constrained. The recovery in the retail sector probably reflects the pick-up in consumption growth over late 2006 and early 2007. However, consumption growth is likely to be moderate over the rest of 2007 and 2008 before recovering in 2009-10. This is of concern given that employment growth in a number of the consumption-dependent low-pay sectors has still been soft even in light of the recent recovery in consumption and GDP. As well as hotels and restaurants, other low-paying sectors, such as hairdressing, textiles and leisure, experienced a fall in employment in the year to June 2007.

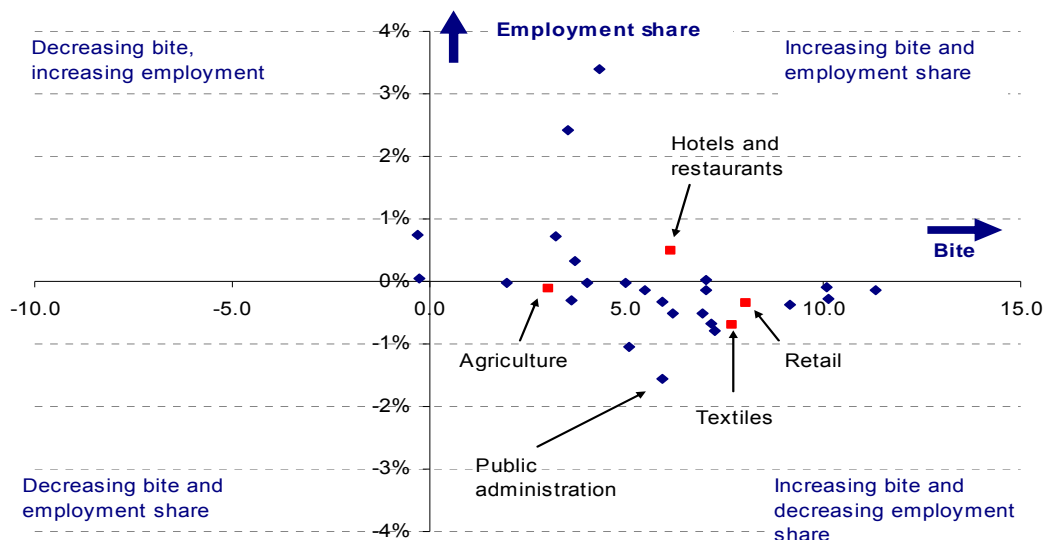
Impact of the bite on employment sector shares

It is difficult to draw conclusions from broad trends in employment in low-paying sectors, as they are driven by a number of factors other than the minimum wage. One approach to dig deeper into the relationship between employment and the impact of the minimum wage is to explore whether there is any relationship between the sectors that have experienced the largest increases in the bite and those that have seen the largest falls in their share of total employment. This is shown in Chart 3.7, which includes points for the major sections and sub-sections of the Standard Industrial Classification. While this chart suggests some correlation between increasing bite and declining employment share, there is no evidence that this is causal.

As noted above, such a relationship is not borne out by the evaluation evidence on the NMW and is more readily explained by trade-induced changes in the UK's industrial structure (see Annex F). Many of the sectors in the bottom right quadrant are manufacturing sectors – so their declining employment share may again simply reflect the relative decline in manufacturing. The sector with the strongest relationship between the bite and employment share is public administration. However, there are a number of factors driving containment of employment in public administration. The story is mixed for the low-paying sectors – there does seem to be some relationship between the bite and employment share for retail and textiles but there is not for hotels and restaurants.

Chart 3.7. Change in bite against change in employment share, 1999 – 2007

Per cent change in Standard Industrial Classification sectors

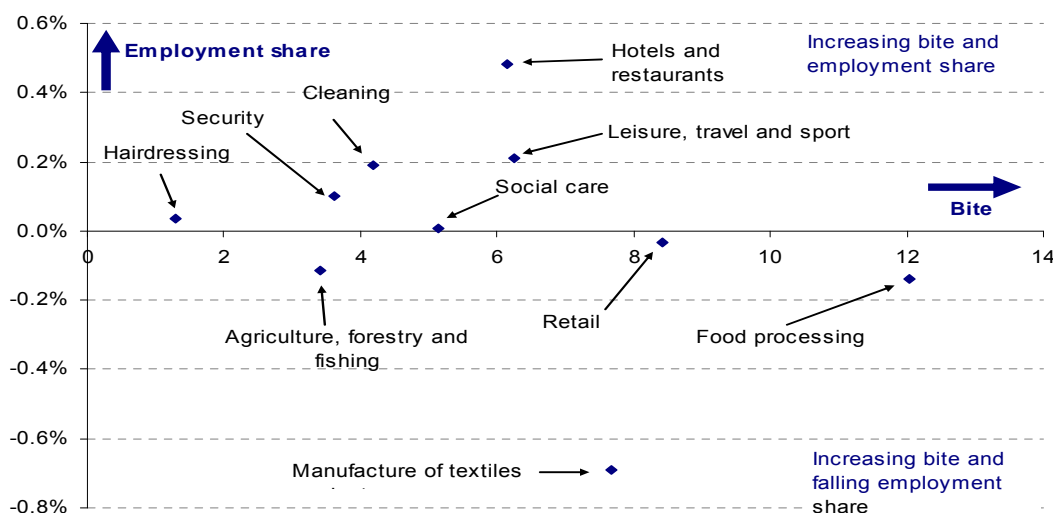


Source: Office for National Statistics, Annual Survey of Hours and Earnings
 1989 - ASHE data - excluding supplementary information
 2007 - ASHE data - new methodology
 See annex H for further information on the changes to ASHE data
 Low-pay sectors are squares; diamonds are other sectors
 Those aged 22+.

Chart 3.7 is based on broad industrial classifications, which are not completely consistent with the low-paying sector definitions used by the LPC. Chart 3.8 shows the change in bite against change in employment share for these sectors. It highlights a similar story – with a stronger relationship between the bite and employment share for the tradeable low-paying sectors and no relationship for most of other sectors.

Chart 3.8. Change in bite against change in employment share, 1999 to 2007

Per cent change in low paid sectors



Source: Office for National Statistics, Annual Survey of Hours and Earnings
 1989 - ASHE data - excluding supplementary information
 2007 - ASHE data - new methodology
 See annex H for further information on the changes to ASHE data.
 Those aged 22+.

Regional employment in the low-pay sectors

The minimum wage will also have a deeper bite in low-wage regions compared to higher-wage regions. Empirical studies have found some evidence of an association between the NMW bite by region and employment changes, although this impact is usually small and not always significant (see Annex F).

Regional data on jobs in the low-paying sectors is only available up to 2005, which limits the ability to analyse the impact of more recent movements in the minimum wage. The share of low-paying jobs relative to total jobs declined in most regions between 1999 and 2005 in line with the trends in low-paying sectors. However, we also have to be careful in drawing conclusions from this data as it may also reflect the changing sectoral composition of the UK economy. In particular, it was the northern regions, which were perhaps the regions that still faced the greatest need to move up the value-chain in the late 1990s, that have witnessed the greatest falls in the share of low-paying jobs between 1999 and 2005.

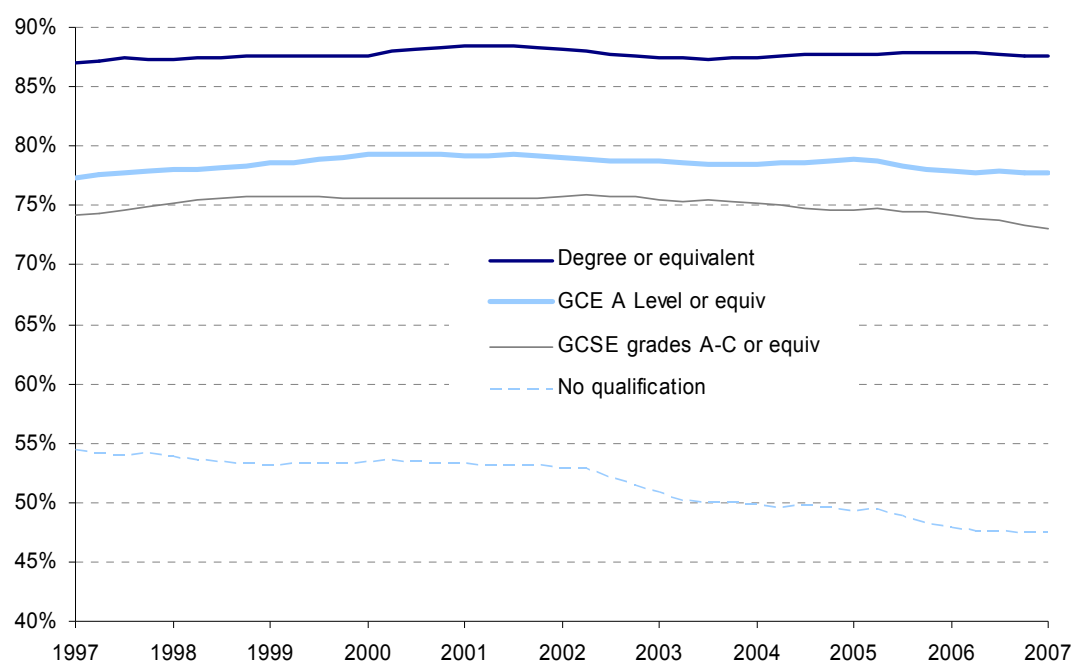
Employment of low skilled

As well as looking at low-paying sectors, another way to explore the impact of the National Minimum Wage is to analyse the labour market outcomes of the low-skilled, who are the most likely to be beneficiaries of the minimum wage.

Chart 3.9 highlights the large and growing gap between the employment outcomes of unqualified and qualified workers. Unqualified workers have experienced a relative deterioration in employment rates from around 54 per cent in 1997 to around 47 per cent in 2007. This is only slightly more than half the employment rate of those with a degree or equivalent.

Chart 3.9: Employment and inactivity rates by qualifications

Per cent of working age population, four quarter moving average



Source: Office for National Statistics, Labour Force Survey.

Not seasonally adjusted.

Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.

See annex H for further information on the switch between season and calendar quarter LFS data.

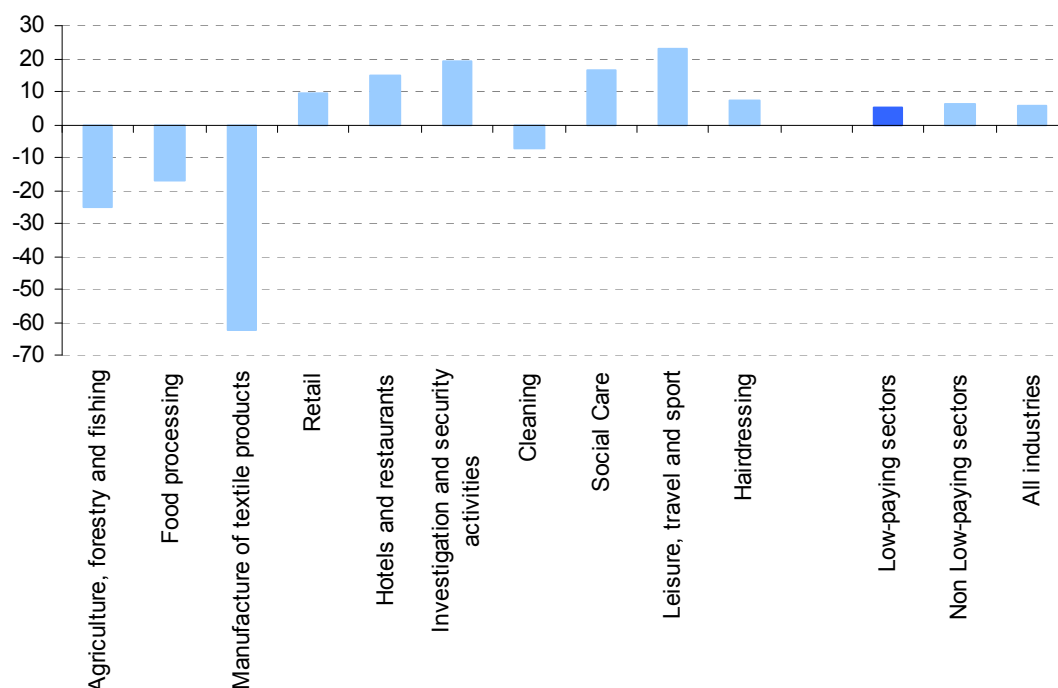
Evidence on hours worked

Employers may alter hours rather than levels of employment in response to minimum wages. This is particularly likely for low paying sectors as they have low fixed costs per worker, little on-the-job training, high labour turnover, limits to the substitution of capital for labour and a high incidence of part-time work. Empirical studies have found some impact of minimum wages on hours (see Annex F).

Over 1999-2007 total hours worked in the low-paying sectors grew just over 5 per cent, slightly less than the 6 per cent growth in the non low-paying sectors (see Chart 3.10). However, the variation across the low paid sectors has been significant. The lower value-added tradeable sectors that have been exposed to lower-cost international competition have seen large falls in total hours worked, offsetting growth in other low-paying sectors. While it is possible that the NMW may have reinforced this trend, it is not possible to disentangle the impact of the NMW from this simple trend analysis.

Chart 3.10: Changes in hours worked for low pay sectors, 1999-2007

Per cent change

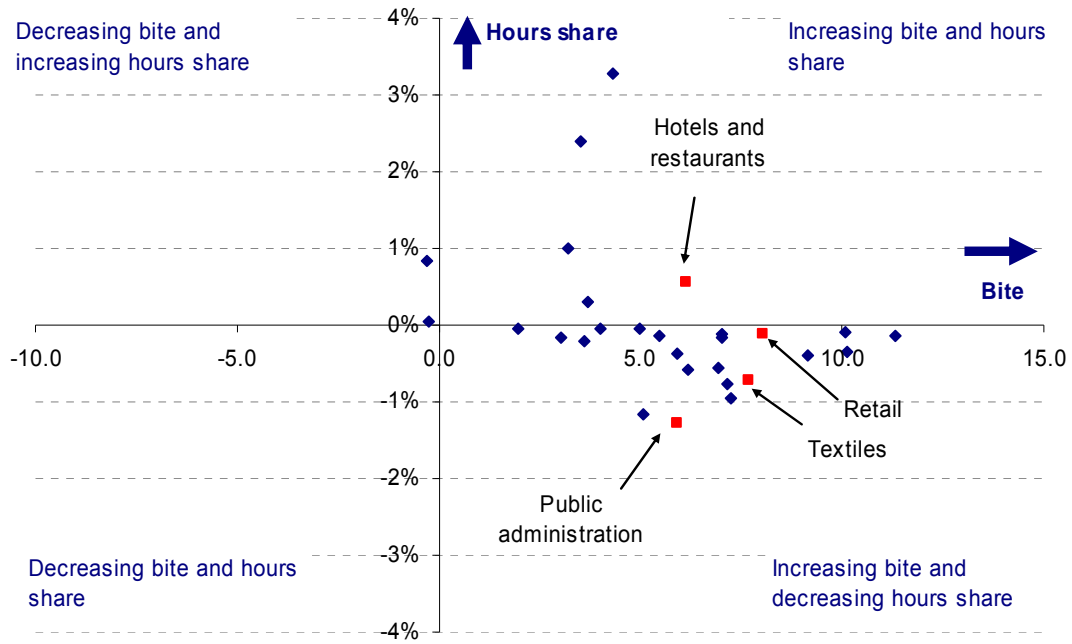


Source: Office for National Statistics, Annual Survey of Hours and Earnings
1999 - ASHE data - excluding supplementary information
2007 - ASHE data - new methodology
See annex H for further information on the changes to ASHE data.

Chart 3.11 shows a small correlation between changes in the bite and hours, as a proportion of total hours. However, this relationship is not consistent across sectors and, as with employment, may be driven by wider sectoral changes in the UK economy.

Chart 3.11: Change in bite against change in hours share, 1999 to 2007

Per cent change



Source: Office for National Statistics, Annual Survey of Hours and Earnings
1999 - ASHE data - excluding supplementary information
2007 - ASHE data - new methodology
See annex H for further information on the changes to ASHE data.
Those aged 22+.

SECTION 4

Developments in the labour market for younger workers

The labour market has proved challenging for some younger workers. The employment rate of 16 and 17 year olds, excluding full-time students, has been declining for some time, although it has improved somewhat over 2007. Lower employment rates may at least partly reflect higher participation in full-time education, which means younger people who are entering the labour market may increasingly be those that will find it most difficult to find employment. However, there continues to be a significant minority of 16 and 17 year olds who are not in employment, education or training. The 18-19 year old age group has also experienced a fall in employment rates, but this drop is much smaller than for their younger counterparts. The labour market outcomes and minimum wage bite of 21 year olds remains more like that of younger workers than those aged 22 or more.

This section includes a separate analysis of younger workers. This focus is warranted as the labour market outcomes of younger workers are more at risk from the uprating of the minimum wage. As younger workers are typically paid less than older workers, the bite of the NMW is significantly higher for younger age groups than for adults. In addition, the NMW can potentially change the balance of incentives between education and employment. Therefore, it is important to monitor the labour market outcomes of this group closely to strike the right balance between protecting young workers while not jeopardizing their employment and education prospects.

More details on employment and unemployment rates by age group can be found at Annex B.

16-17 year olds

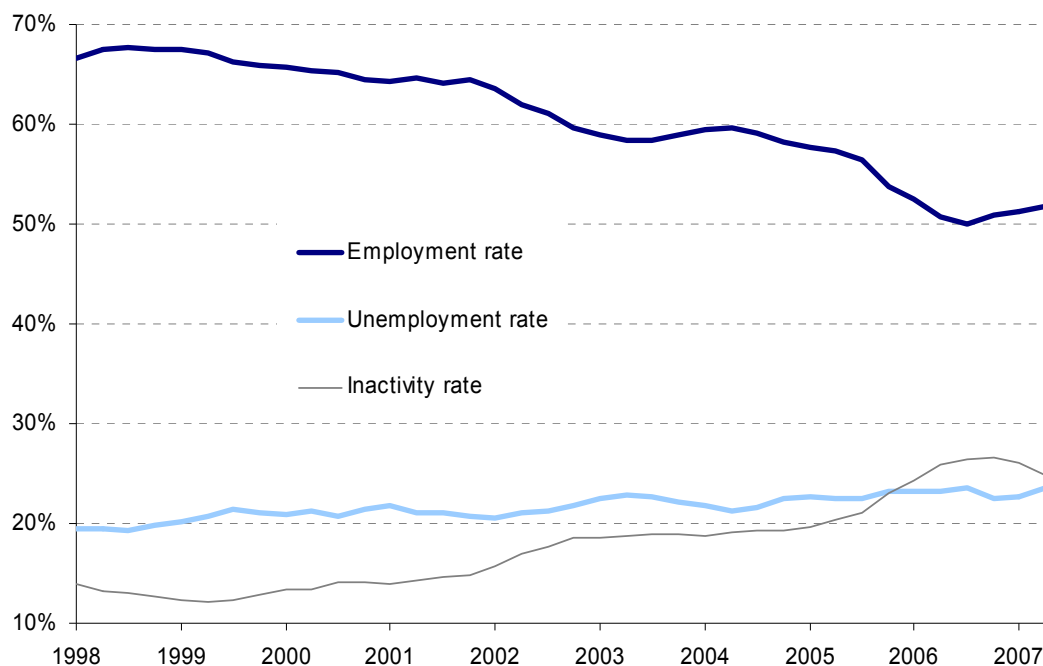
The minimum wage rate for 16-17 year olds was introduced in October 2004. It was initially set at the rate of £3.00 and was increased to £3.30 from October 2006 and then £3.40 from October 2007. The Government's aim is to afford very young workers some protection from poverty pay, while maintaining the incentives for 16-17 year olds to remain in education or job-related training and build-up their knowledge and future earnings potential.

Chart 4.1 indicates that the employment rate of 16 and 17 year olds, excluding full-time students, has been declining for some time, although it has picked up slightly in the last couple of quarters. This decline has been reflected in both rising unemployment and inactivity, although the upward trend in the inactivity rate has been steeper over the last few years. As a consequence, the inactivity rate is now higher than the unemployment rate for this age group.

This rise in inactivity has been more marked than for older age groups, although it has improved slightly over 2007.¹²

Chart 4.1: Employment, unemployment and inactivity rates of 16-17 year olds, excluding full time students and graduates

Per cent of age group, four quarter moving average



Source: Office for National Statistics, Labour Force Survey. 4-quarter averages
 Not seasonally adjusted.
 Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.
 See Annex H for further information on the switch between season and calendar quarter LFS data.

The deterioration in labour market outcomes for 16-17 year olds pre-dates the introduction of the NMW, and has taken place over a period when the employment rates of most disadvantaged groups have risen faster than the overall working age employment rate. This may reflect the greater interaction of other groups with welfare to work policies, as access to financial support is combined with a requirement to undertake appropriate work-focused activity. It may also partly reflect the increasing participation of 16 to 17 year olds in education. As more stay on in full-time education, those entering the labour market may increasingly be those that will find it most difficult to find employment.

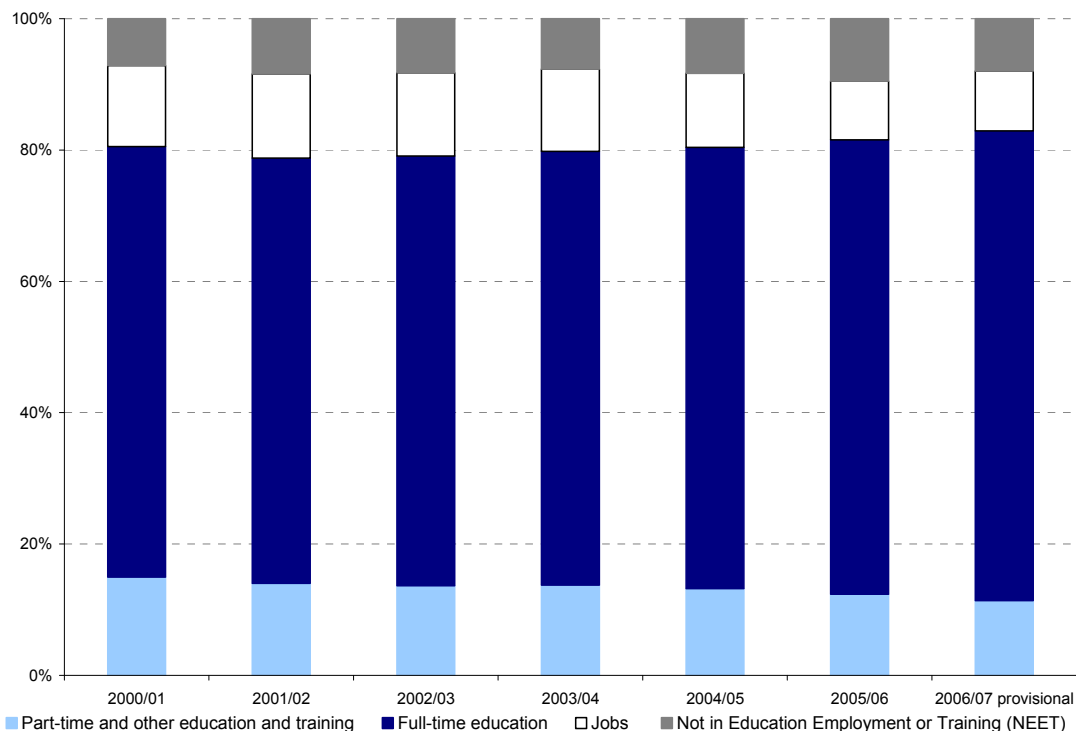
However, there continues to be a substantial minority of 16 to 17 year olds that are not in education or employment (NEET). The NEET rate peaked in the mid 1980s and has been around 7 to 10 per cent over the last decade. The most recent published data show the NEET rate improved between the first quarter of 2006 and 2007, from 9.5 per cent to 8 per cent, reflecting improvements in both unemployment and inactivity rates among those not

¹² Note that this analysis is based on LFS data to be consistent with our analysis for other age groups in the economic evidence. LFS data are not exactly the same as the Department for Children, Schools and Families Statistical First Release data, which is used in Chart 4.2. This data shows that for 16-17 year olds not in education or training, unemployment is higher than inactivity and both have shown some improvement in the first quarter of 2007.

participating.¹³ The Department for Children, Schools and Families (DCSF) strategy to further reduce the NEET rate to 2010 has recently been published.¹⁴

Chart 4.2: Economic status of young people aged 16-17

Per cent of age group



Source: DCFS. The labour market indicators reported here are those published in the DCSF Statistical First Release (SFR) 'Participation in Education, Training and Employment by 16-18 Year Olds in England: 2005 and 2006 and Participation in Education and Training by 16 and 17 Year Olds in each Local Area in England: 2004 and 2005.' These differ from labour market figures published elsewhere in this report since they use academic age to select 16 and 17 year olds (rather than actual age), apply to England only (as opposed to England and Wales) and combine the first quarter LFS with other administrative data. SFR figures are a 'snapshot' of the first quarter of each year; i.e. 2006/07 refers to the March quarter of 2007.

As noted above, participation in full-time education for both 16 and 17 year olds has increased significantly since 2004. It has been gradually increasing since 2001 but growth is particularly marked since 2004 at around two percentage points a year. This may be because any inducement of the 16-17 NMW to enter employment has at least been partly offset by the introduction of the Education Maintenance Allowance at the same time.

18-21 year olds

The employment rate amongst 18 to 21 year olds, excluding full time students and graduates, is now lower than at the time the minimum wage was introduced in 1999 (see Chart 4.3).

There has been a relatively gradual decline in the employment rate for this age group from around 2001 in both male and female employment rates (also see Chart 4.4). While the majority of the fall in the employment rate since its peak in 2001 has been absorbed by the inactivity rate, the unemployment rate has also risen by over two percentage points (see Chart 4.4). In the last

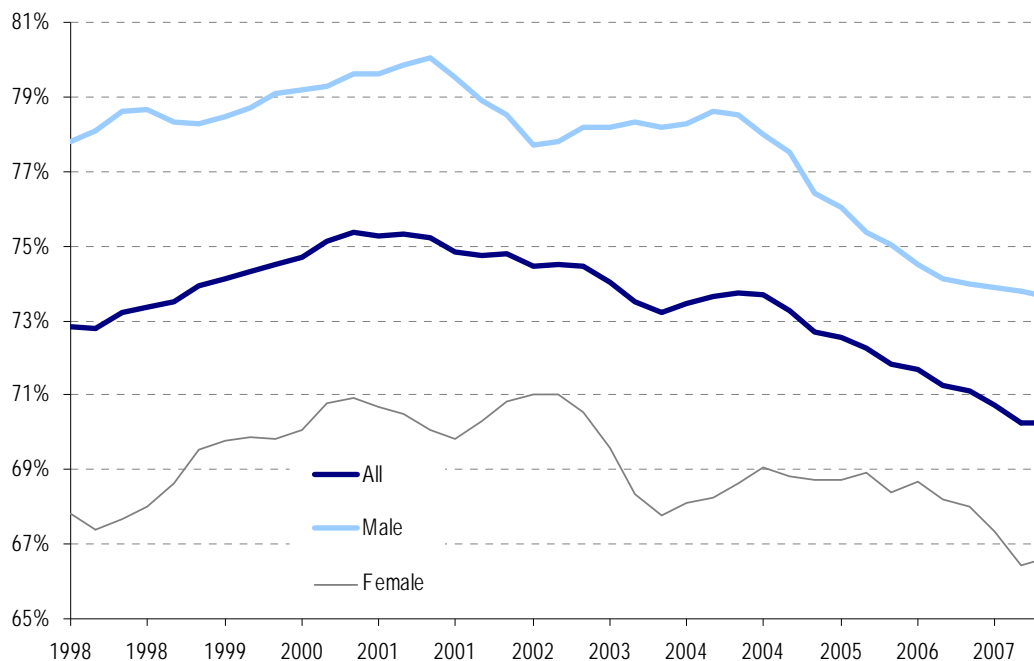
¹³ The NEET is not fully consistent with the LFS inactivity rate shown in Chart 4.1. It is based on the Department for Children, Schools and Families Statistical First Release data and excludes all those in any form of education or training, while Chart 4.1 only excludes those in full-time education.

¹⁴ See <http://www.dfes.gov.uk/14-19/documents/NEET%20%20Strategy.pdf>.

couple of years, the unemployment rate has actually been increasing faster than the inactivity rate for this age group.

Chart 4.3: Employment rate of 18-21 year olds excluding full-time students and graduates

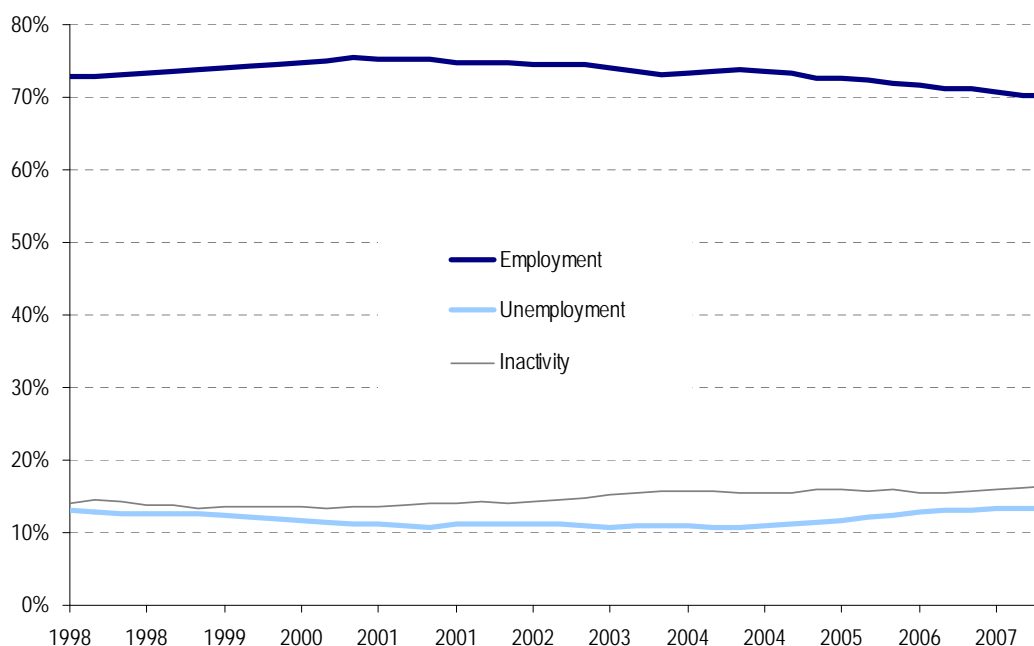
Per cent of age group, four quarter moving average



Source: Office for National Statistics, Labour Force Survey. 4-quarter averages
 Not seasonally adjusted.
 Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.
 See Annex H for further information on the switch between season and calendar quarter LFS data.

Chart 4.4: Unemployment rate of 18-21 year olds excluding full-time students and graduates

Per cent of age group, four quarter moving average



Source: Office for National Statistics, Labour Force Survey. 4-quarter averages
 Not seasonally adjusted.
 Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.
 See Annex H for further information on the switch between season and calendar quarter LFS data.

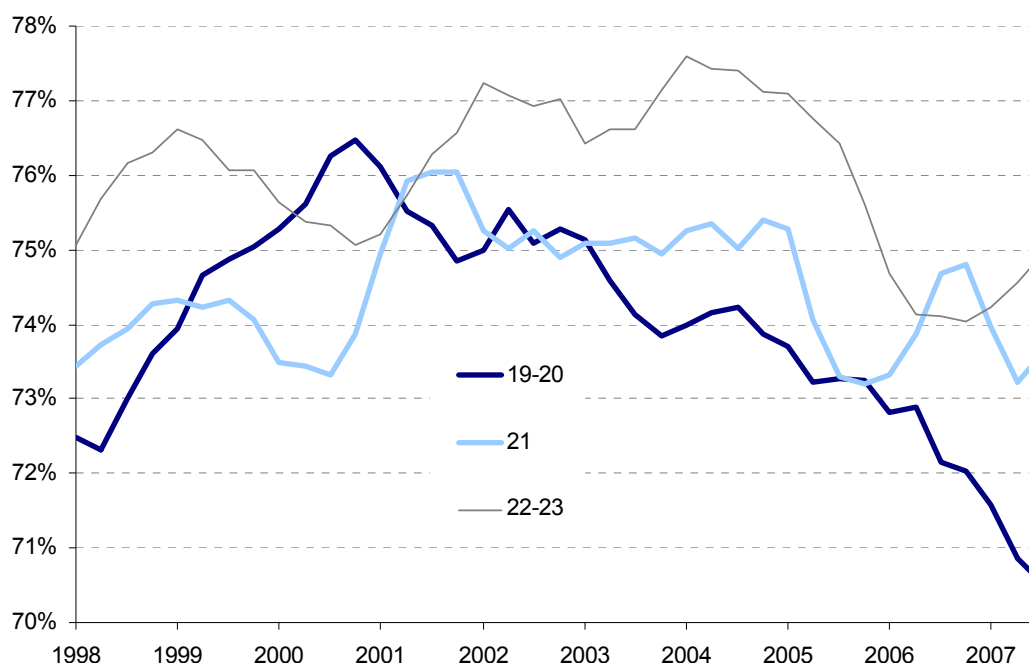
However, Chart 4.3 and 4.4 mask some differences in labour market outcomes for the individual age groups. In particular, while there is some decline in employment rates for 18 and 19 year olds, the employment rates of 20 and 21 years olds are more stable. The recent fall in the employment rate for 18-19 year olds may reflect, in part, a period of slower growth in the economy since 2004. However, it does not seem to have picked up in response to the recovery in economic growth in the second half of 2006.

21 year olds

Currently 21 year olds are covered by the Development Rate, as the Government believes the labour market performance of 21 year olds resembles more closely that of 18 to 20 year olds than older workers. Looking at the employment rate (excluding students and graduates) by individual age, Chart 4.5 indicates that the employment rate of 21 generally moves more in line with the 19-20 year old rate.

Chart 4.5: Comparison of the employment rate of 21 year olds with 19-20 and 22-23 year olds, excluding full-time students and graduates

Per cent of age group, four quarter moving average

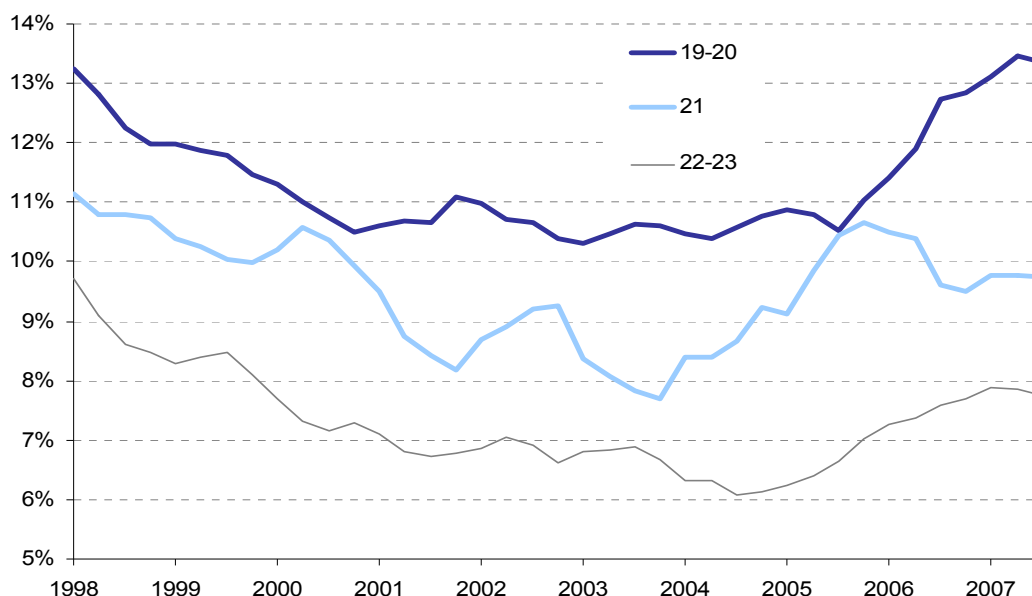


Source: Office for National Statistics, Labour Force Survey. 4-quarter averages.
 Not seasonally adjusted.
 Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.
 See Annex H for further information on the switch between season and calendar quarter LFS data.

In addition, the unemployment rate of 21 year olds also remains above that of 22 year olds and above (see Chart 4.6). This group is likely to be vulnerable to further increases in unemployment in light of the weakening labour market (see section one).

Chart 4.6: Comparison of the unemployment rate of 21 year olds with 19-20 and 22-23 year olds, excluding full-time students and graduates

Per cent of age group, four quarter moving average

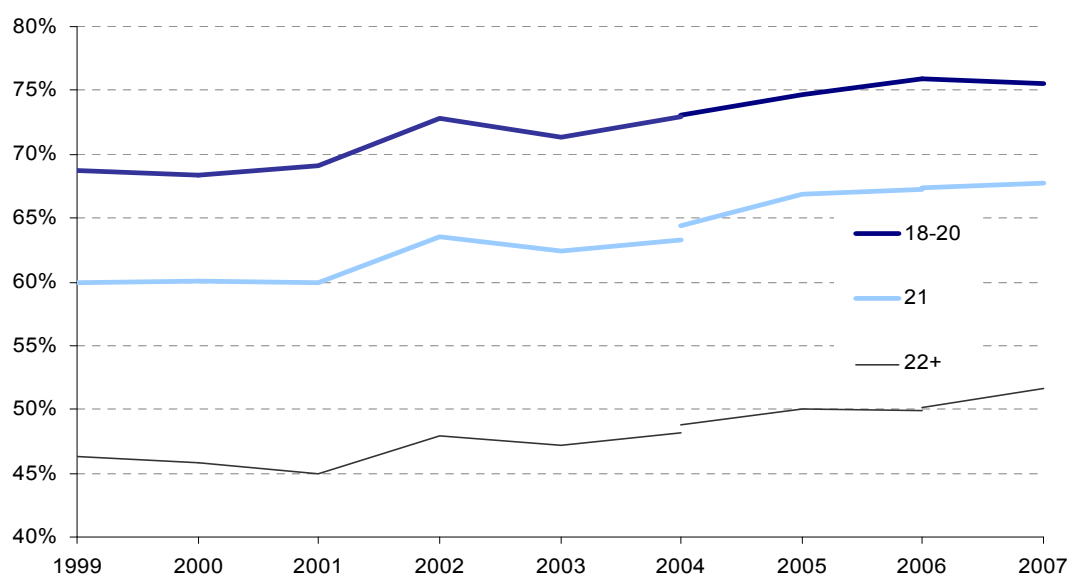


Source: Office for National Statistics, Labour Force Survey. 4-quarter averages
 Not seasonally adjusted.
 Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.
 See Annex H for further information on the switch between season and calendar quarter LFS data.

Chart 4.7 also shows that the bite for 21 years old is relatively similar to 18-20 year olds. The 21 year old bite is around 15 percentage points higher than the adult minimum wage as a percent of median earnings, while it is only around 8 percentage points below the 18-20 year old bite. This implies that increases in the NMW have made low-skilled 21 year olds relatively expensive and this would be exacerbated if 21 years olds were shifted to the adult rate.

Chart 4.7: The bite of the NMW for 18-20 and 21 year olds

Minimum wage as a per cent of median earnings



Source: Office for National Statistics, Annual Survey of Hours and Earnings
 1999-2004 ASHE data - excluding supplementary information
 2004-2006 ASHE - old methodology
 2006-2007 ASHE - new methodology
 See Annex H for further information on the changes to ASHE data.

SECTION 5

Other issues

Net migration into the United Kingdom has been at historically high levels in recent years, partly reflecting inflows from the A8 accession countries. While net immigration to the UK appears to have peaked in 2004, it remains at historically high levels. Many recent migrants have been employed in lower paid jobs and sectors. While there is not yet evidence of any adverse impact on unemployment, the impact of the recent influx of immigrants on wage growth is more ambiguous. The limited UK research to date suggests that immigration boosts wages of most domestic workers but one study by Dustmann et al (2007) suggests it may also tend to modestly slow wage growth at the bottom of the earnings distribution. This impact is very small and has been more than offset by increases in the minimum wage.

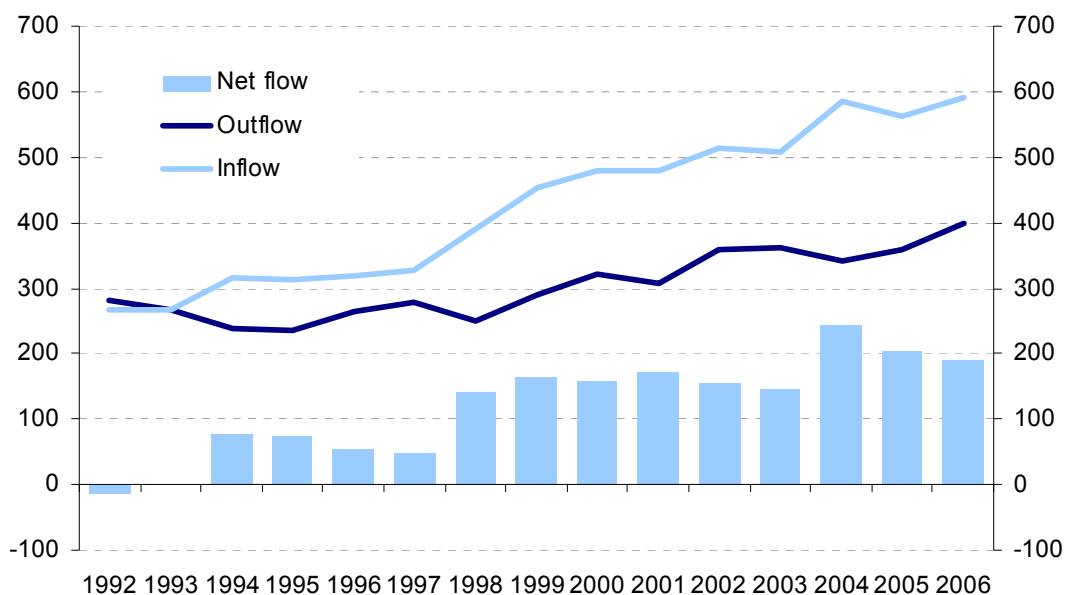
The Government is increasing the current statutory minimum holiday entitlement from 4 weeks to 5.6 weeks (with half of the increase taking effect in October 2007 and the remaining increase to be introduced in April 2009). As a large proportion of those benefiting from the minimum wage will also benefit from the extension of leave, this will have cost implications for many NMW employers.

Migration

Inward migration into the United Kingdom has risen strongly in recent years. While net flows into the UK are still high by historical standards, they have decreased somewhat over the last couple of years from a peak of over 240,000 in 2004 to around 190,000 in 2006 (see Chart 5.1).

Chart 5.1. Inflows and outflows of migrants into the UK

Thousands



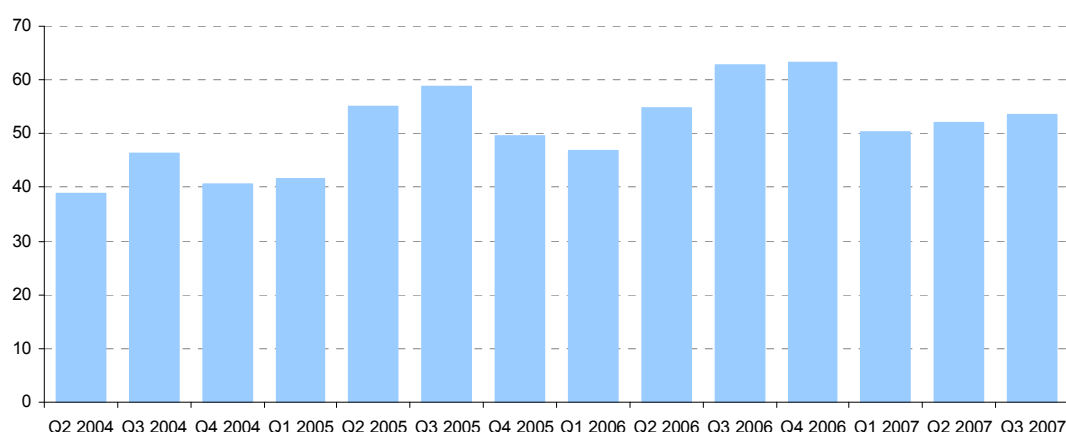
Source: Office for National Statistics, International Passenger Survey

One of the main drivers of the increase in the inflow of migrants in recent years has been the accession of the eight Central and Eastern European members (the A8 group) into the European Union. While the International Passenger Survey (IPS) only covers those entering or leaving the UK for at least a year and so does not count shorter term migrants as the Workers Registration Scheme (WRS)¹⁵ will, trends between the two have been similar.

The IPS still shows an increasing inflow of A8 migrants in 2006. However, there is a substantial lag in the release of data from the IPS. More recent data from the WRS suggests that the inflow of A8 migrants in the first three quarters of 2007 were lower than for the same quarters in 2006 (see Chart 5.2). There were less than 54,000 approved applicants to WRS in the third quarter of 2007, compared to almost 63,000 in the same quarter of 2006. Data from the Department for Work and Pensions shows growth in the allocation of national insurance numbers to EU accession countries easing from over 130 per cent in the year to March 2006 to around 16 per cent in the year to March 2007.

Chart 5.2. Approved applications for the Workers Registration Scheme

Thousands



Source: WRS, Home Office

This table shows applicants rather than the number of applications made. The figures are for initial applications only and do not include multiple applications, where an individual is doing more than one job simultaneously, or applications to re-register, where an individual has changed employers.

The economic and fiscal impacts of immigration were summarized in a recent cross-departmental submission to the House of Lord Select Committee on Economic Affairs.¹⁶ As migration increases the supply of labour, there are often concerns that it will depress wages or increase unemployment for domestic workers. However, this fear is often based on a 'lump of labour' fallacy that there is a fixed number of jobs to go around. As migrants consume as well as work, they increase the demand for, as well as, the supply of labour. In addition, if migrants fill skill shortages in the labour market they may allow some sectors to expand, increasing employment opportunities for domestic workers. Indeed the broad academic consensus is that the

¹⁵ The Workers Registration Scheme (WRS) requires employees (but not the self-employed) from the A8 countries to register before taking work.

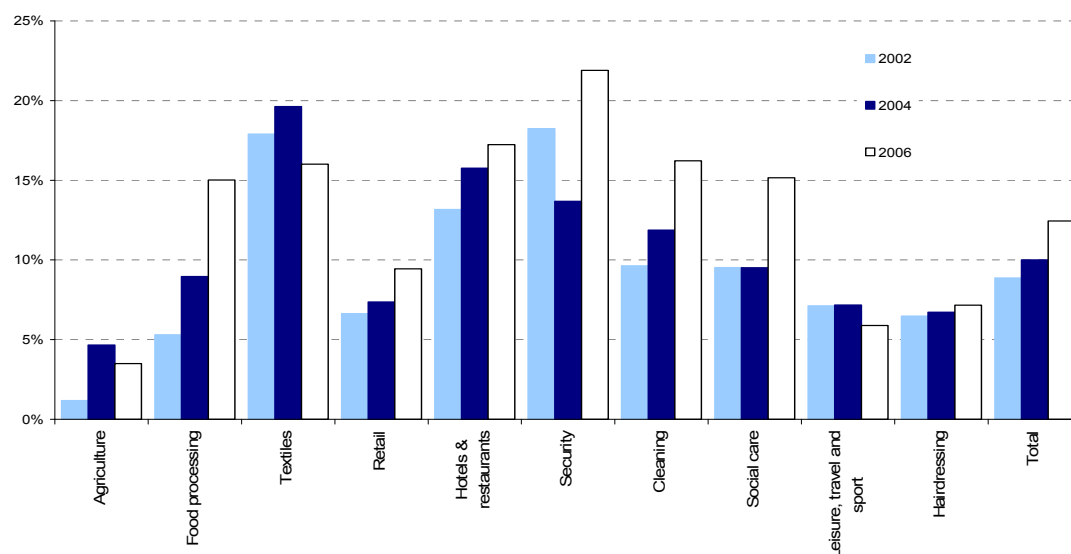
¹⁶ Home Office and Department for Work and Pensions (2007) *The Economic and Fiscal Impact of Immigration*. A Cross-Departmental Submission to the House of Lords Select Committee on Economic Affairs.

impact of migration on native labour market outcomes in the UK is negligible.¹⁷

However, many migrants appear, at least initially, to compete at the lower end of the labour market. While the majority of new European immigrants are relatively well-educated in comparison with the indigenous population,¹⁸ they predominantly work in the least skilled occupations and in the low-paying industries such as administration, hospitality and catering, and food processing. Chart 5.3 highlights that the proportion of foreign-born workers in the low paid sectors has generally been increasing.

Chart 5.3. Proportion of foreign-born workers in low-pay sectors

Per cent of total



Source: Office for National Statistics, Labour Force Survey

In particular, the recent relatively large inflows of A8 migrants tend to be concentrated in lower paid jobs. Data on the hourly rate of pay of A8 migrants from the WRS shows that a high proportion – just over 40 per cent - of registrations reported pay at or close to the minimum wage rate of the time (see Chart 5.4).¹⁹

Has this concentration of migrants at the lower end of labour market displaced lower-skilled domestic workers in the labour market? While it has coincided with an increase in the unemployment rate of younger workers, the most recent UK analysis, based on claimant count data, found no support for the

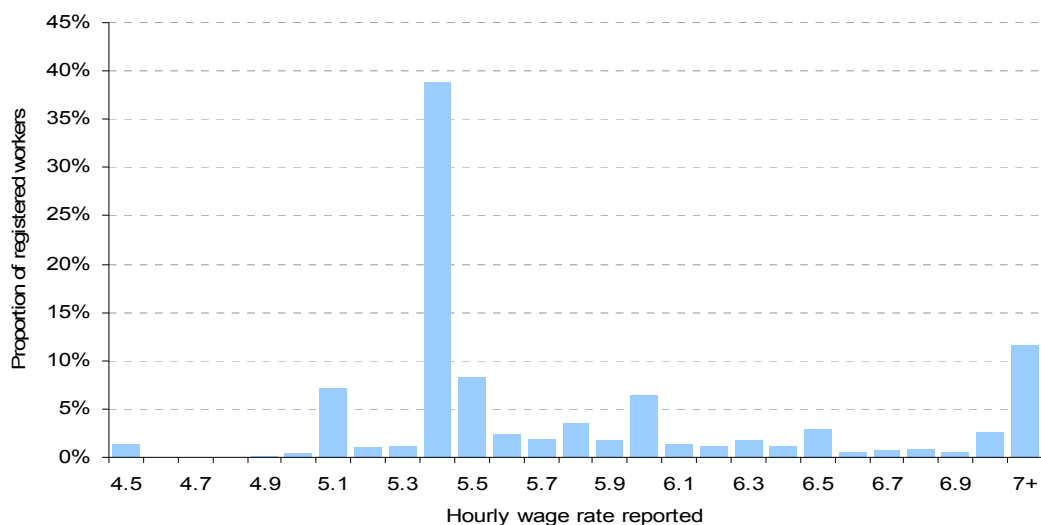
¹⁷ See, for example, Dustmann C, Fabbri F, Preston I and Wadsworth J (2003) *The local labour market effects of immigration in the UK*. Home Office Online Report 06/03 (www.homeoffice.gov.uk/rds/pdfs2/rdolr0603.pdf) or Blanchflower, D., Saleheen, J. and Shadforth, C. (2007) *The Impact of the Recent Migration from Eastern Europe on the UK Economy*, Bank of England. (<http://www.bankofengland.co.uk/publications/speeches/2007/speech297.pdf>).

¹⁸ See Saleheen, J. and C. Shadforth (2006) *The Economic Characteristics of Immigrants and their Impact on Supply*. *Quarterly Bulletin*, Vol. 46, No. 4, Bank of England, London.

¹⁹ While WRS data is not comprehensive, it is likely that A8 workers form a high proportion of new migrants. However, the wage data here must be viewed with some caution, as new A8 employees may not clearly know their pay at the time of registration and their hourly pay may change during the course of their employment, which would not be picked up by the data.

argument that accession country immigrants have contributed to overall unemployment or that of younger workers.²⁰

Chart 5.4. Distribution of reported hourly pay of workers registering on the WRS between October 2006-March 2007



Source: Workers Registration Scheme, Home Office

The figures have been sorted so as to include only people aged 22 or older, all application outcomes (approved, cancelled, exempt, refused, withdraw) and to exclude people registered as from "other" nationality (other than A8).

A significant increase in the labour supply through migration may also be expected to put downward pressure on wage growth. However, research generally finds a slightly positive effect of migration on wage growth on average. A recent UK study found that immigration boosted the wage growth of most domestic workers. However, the inflow of migrants between 1997 and 2005, which largely pre-dated the recent wave of A8 immigration, may have slightly slowed wage growth at the lower end of the wage distribution. These impacts were small, partly reflecting the insulating role played by the National Minimum Wage. Over the period considered, the real (inflation-adjusted) hourly wage grew by an average of 18 pence per year at the first decile. Without immigration, this figure would have been 0.7 pence higher. Further up the wage distribution, immigration added about 1.5 pence per year to real hourly wage growth at the median, and 2.3 pence at the ninth decile.²¹

Holiday entitlement

The Government plans to increase the current statutory minimum holiday entitlement from four weeks to 5.6 weeks (maximum 28 days), to implement its commitment to make paid time off for bank holidays additional to the previous four-week holiday entitlement.

The increased holiday entitlement has been implemented by amending the current Working Time Regulations regarding the quantum of annual leave. The introduction of the increased holiday is phased – the entitlement increased to 4.8 weeks (equivalent to an extra four days' holiday for someone

²⁰ Gilpin, N. et al. (2006) *The Impact of Free Movement of Workers from Central and Eastern Europe on the UK Labour Market*. Working Paper, No. 29, Department for Work and Pensions, London.

²¹ Dustmann, C., Frattini, T. and Preston, I. (2007) *A study of migrant workers and the national minimum wage and enforcement issues that arise*. Report commissioned by the Low Pay Commission (<http://www.econ.ucl.ac.uk/cream/pages/LPC.pdf>).

working five days a week) from October 2007 and the remaining increase will be introduced in April 2009.

The final Impact Assessment estimated that a total of 6 million people will benefit from the increased holiday entitlement (including 4.5 million employees and 1.5 million other workers).²² The estimated annual wage cost for implementing this is between £2.6 billion and £3.5 billion. Adding on non-wage labour costs implies an annual total labour cost of £3.3 billion to £4.4 billion.²³ There are also expected to be additional administration costs of £140 million transitional costs and £43 million ongoing administrative cost.

As an example, Table 5.1 looks at the cost for a representative NMW worker who benefits from the full 8 day increase in holidays. The first tranche of increased holiday leave is estimated to have added eight pence to the wage cost of this representative National Minimum Wage employee and ten pence to the total labour cost. Assuming the same level of minimum wages, the second tranche of additional holiday to be introduced in April 2009 should have a similar cost.

Table 5.1. Example: cost of additional holiday entitlement for a representative person on the NMW who receives full 8 day increase

Element of cost	Cost £	Assumptions
Wage cost of first holiday tranche (from 1 Oct 2008)	£0.08	Annual percent increase = $0.8/52\text{weeks} = 1.5\%$ Cost = $1.5\% * £5.52$ (NMW from 1 Oct 2007)
Wage cost of second holiday tranche (from 1 April 2009)	£0.08	As above
Total wage cost	£0.17	Annual percent increase = $1.6/52\text{weeks} = 3.1\%$ Cost = $3.1\% * £5.52$ Or sum of tranche 1 and 2.
Total labour costs of first tranche	£0.10	Wage cost * 1.20 (20% non-wage labour costs are consistent with the Labour Force Survey)
Total labour costs of second tranche	£0.10	As above
Total labour cost	£0.20	Sum of tranche 1 and 2
Administration costs	£0.004	Annual admin costs are £7.17 based on total admin costs divided by number of beneficiaries. Converted to an hourly cost assuming a 37 hour working week ²⁴
Total cost per person	£0.21	Sum of total labour cost and administration costs

Source: BERR (2007) The Working Time (Amendment) Regulations
Numbers may not sum due to rounding.

This gives a total additional labour cost to an employer of the representative NMW worker of around 20 pence. Adding on additional administration costs from processing the increased holiday entitlement provides a total per person,

²² See BERR (2007) *The Working Time (Amendment) Regulations 2007. Final Regulatory Impact Assessment*. June 2007. (<http://www.berr.gov.uk/files/file39873.pdf>).

²³ This includes non-wage labour costs of 20%, which is consistent with the Labour Cost Survey.

²⁴ It assumed that processing the additional holiday entitlement would take 15 minutes of management time per worker.

per hour cost of around 21 pence.²⁵ This is an absolute maximum cost, as a number of people on the NWM will already have some or all of the extra statutory eight days entitlement. For example, the employer cost of the regulation change for a NMW worker currently with 24 days holiday would be less than 11 pence and around 5 pence for a worker currently with 26 days holiday.

There is likely to be significant overlap between those who benefit from the minimum wage and those who benefit from the extension of the entitlement to annual leave, as the lowest paid are least likely to receive a leave entitlement equivalent to the 28 days. However, we do not fully know the extent of that overlap. A survey of holiday entitlement undertaken by BERR to inform the impact assessment for this regulatory change only collected information on holiday entitlement for annual salary bands. Converting the minimum wage to an annual salary, suggests that an estimated 36 to 43 per cent of people on the NMW will benefit from the full additional eight days holiday entitlement. In addition, another 31 percent to 46 percent of the survey sample may partly benefit from the changes (they currently enjoy between 21 and 28 days holiday). However, this will be a significant over-estimate as we do not know the hours worked by employees in the survey sample, so it does not weight or adjust for part-time workers who will have a lower leave entitlement. A more reliable guide will be estimates of the Low Pay Commission, based on the LFS, that around a third of all workers in the low paying sectors would be affected by the change in October 2007 and at most 40 per cent of all low paid employees.²⁶

²⁵ This is only the ongoing annual cost of implementing the additional holiday leave and excludes the one-off transitional cost from introducing the new legislation.

²⁶ Low Pay Commission Report (2007) *National Minimum Wage*. March 2007. (http://www.lowpay.gov.uk/lowpay/report/pdf/6828-DTi-Low_Pay_Complete.pdf).

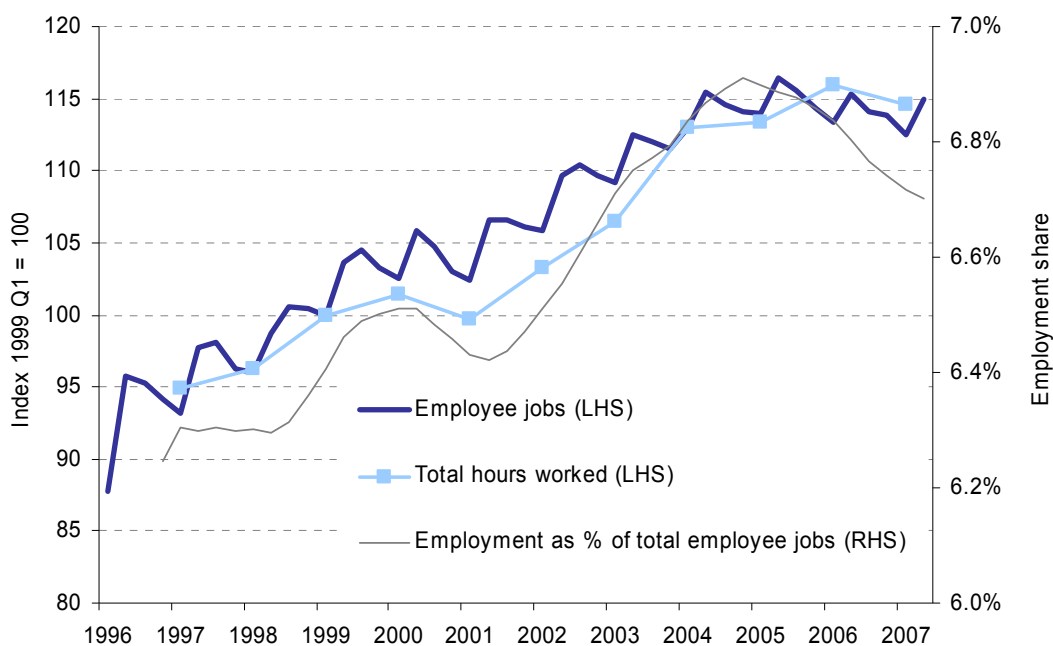
ANNEX A

Employment in low-paying industries

This annex looks at trends in employee jobs in the main low-paying sectors in the UK economy: hotels and restaurants, textile and textile products, security, cleaning, leisure, social care and retail.

Chart A1. Employee jobs and total hours in hotels and restaurants

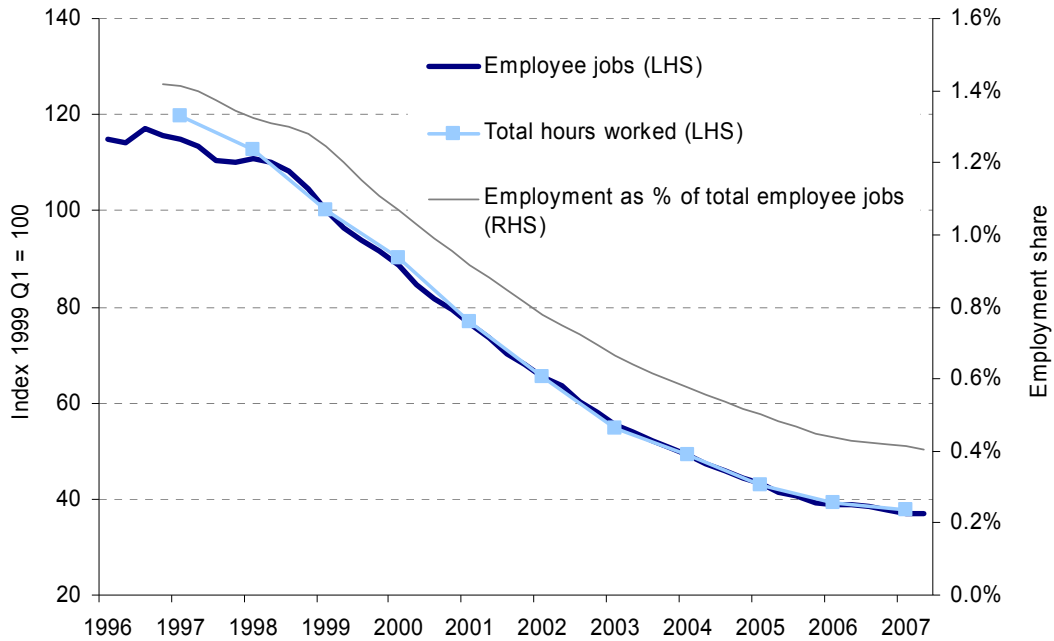
Index and per cent of total



Source: Office for National Statistics, Employee jobs, 4-quarter averages
Not seasonally adjusted.
Total hours worked: employee jobs * mean weekly total hours from ASHE.

Chart A2. Employee jobs and total hours in textiles and textile products

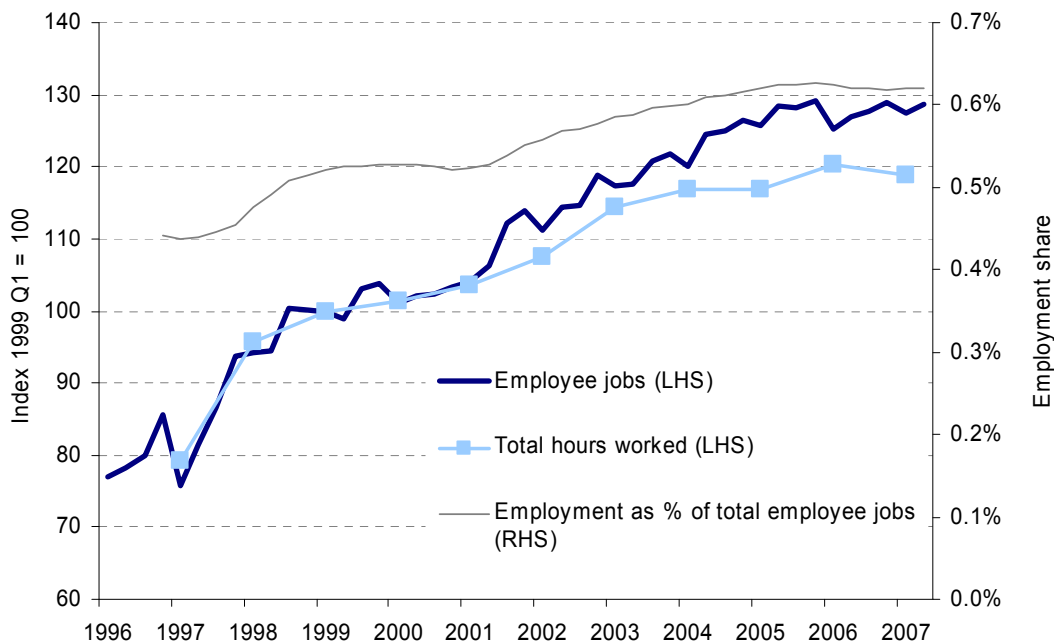
Index and per cent of total



Source: Office for National Statistics, Employee jobs, 4-quarter averages
 Not seasonally adjusted.
 Total hours worked: employee jobs * mean weekly total hours from ASHE.

Chart A3. Employee jobs in investigation and security activities

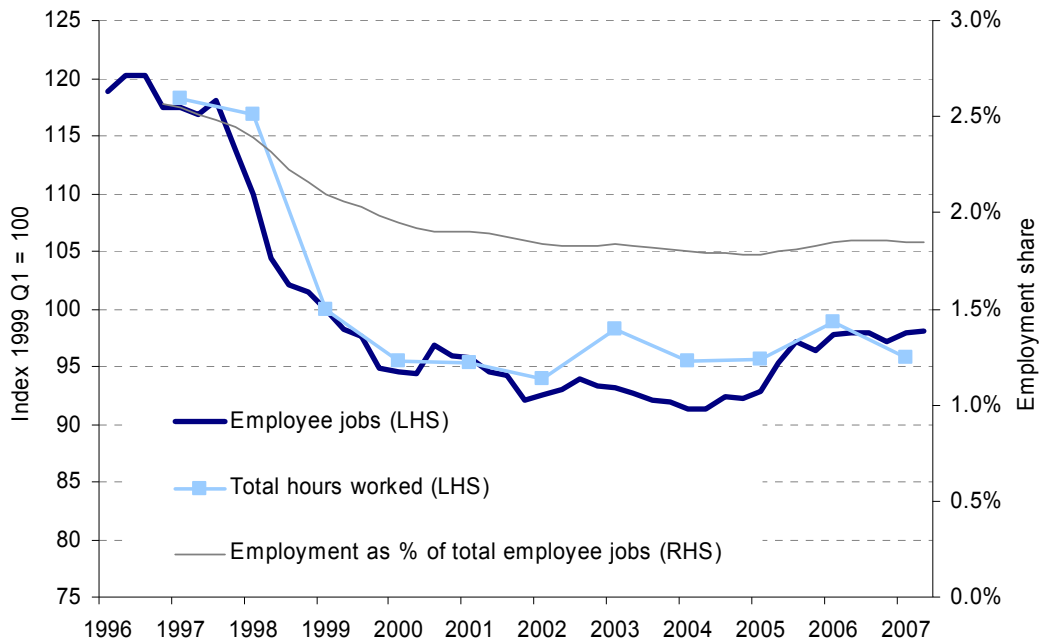
Index and per cent of total



Source: Office for National Statistics, Employee jobs, 4-quarter averages
 Not seasonally adjusted.
 Total hours worked: employee jobs * mean weekly total hours from ASHE.

Chart A4. Employee jobs and total hours in cleaning

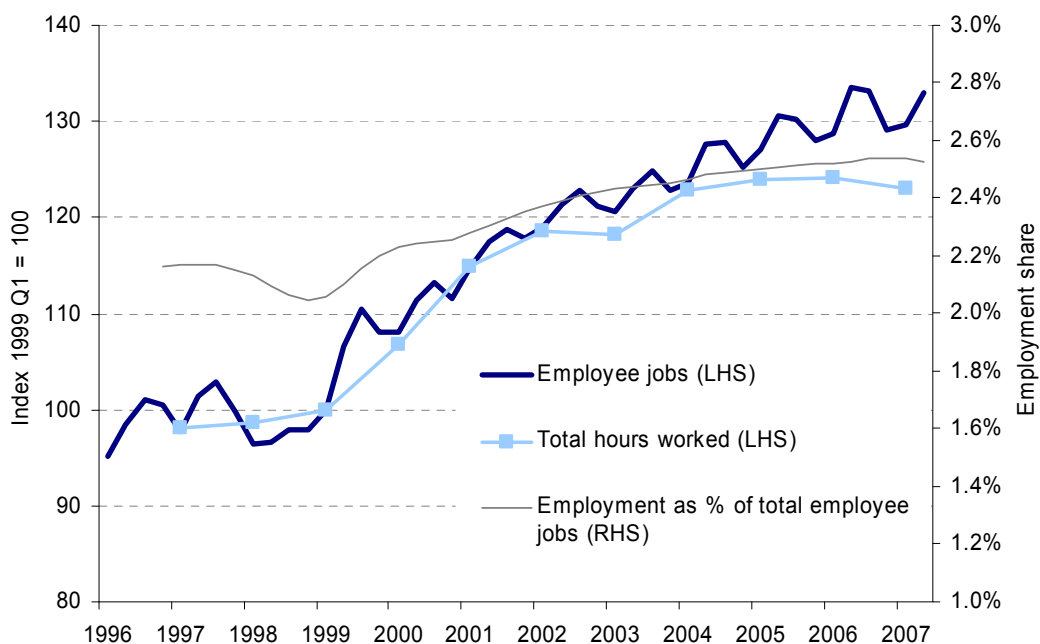
Index and per cent of total



Source: Office for National Statistics, Employee jobs, 4-quarter averages
 Not seasonally adjusted.
 Total hours worked: employee jobs * mean weekly total hours from ASHE.

Chart A5. Employee jobs and total hours in leisure, travel and sport

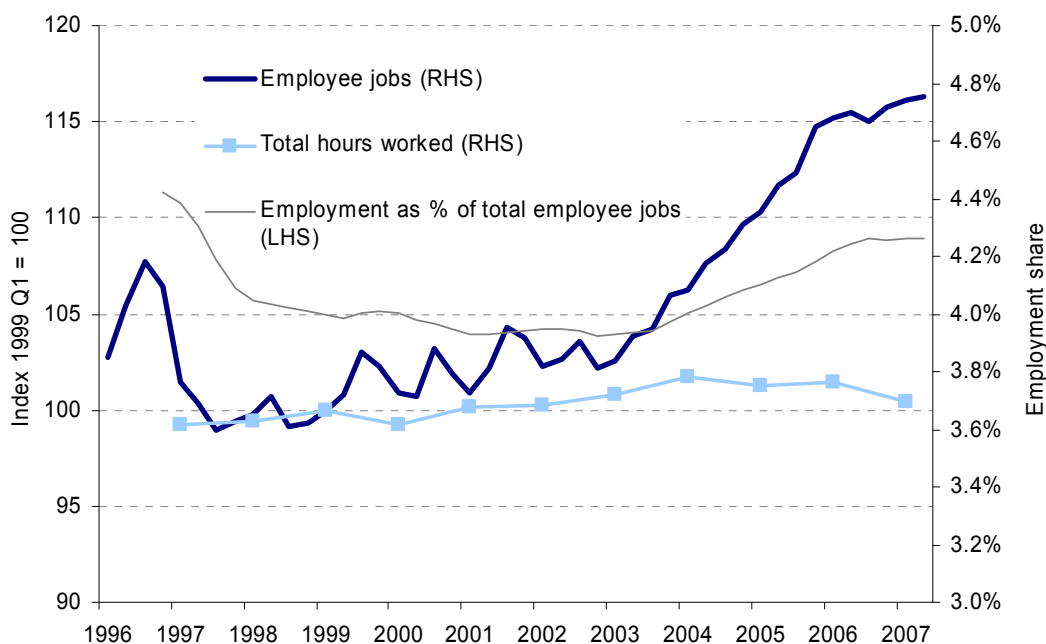
Index and per cent of total



Source: Office for National Statistics, Employee jobs, 4-quarter averages
 Not seasonally adjusted.
 Total hours worked: employee jobs * mean weekly total hours from ASHE.

Chart A6. Employee jobs and total hours in social care

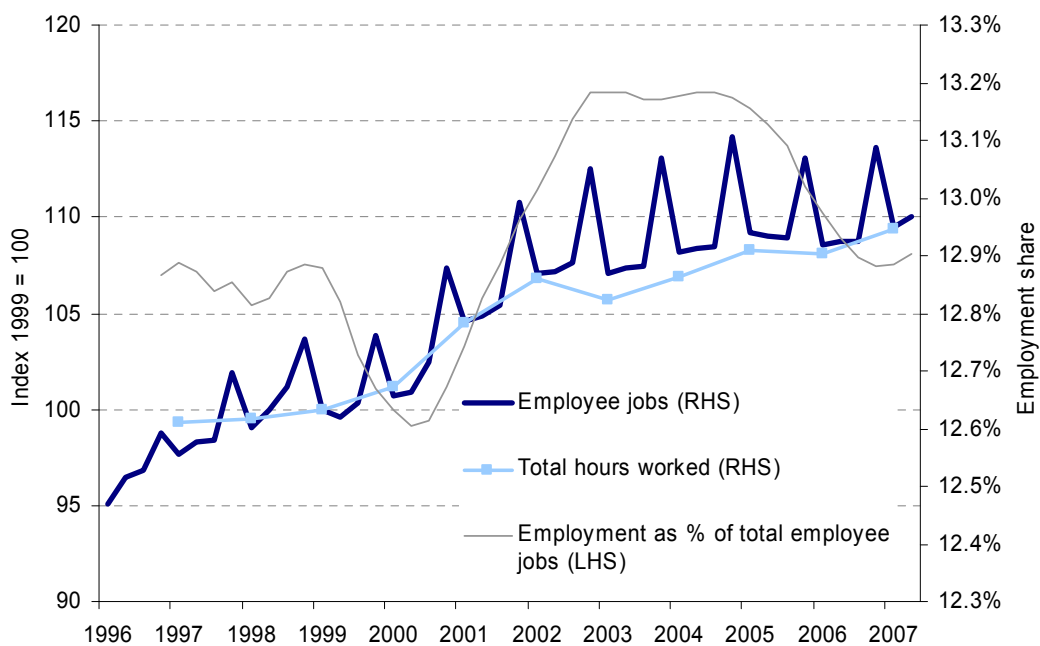
Index and per cent of total



Source: Office for National Statistics, Employee jobs, 4-quarter averages
 Not seasonally adjusted.
 Total hours worked: employee jobs * mean weekly total hours from ASHE.

Chart A7. Employee jobs and total hours in retail

Index and per cent of total



Source: Office for National Statistics, Employee jobs, 4-quarter averages
 Not seasonally adjusted.
 Total hours worked: employee jobs * mean weekly total hours from ASHE.

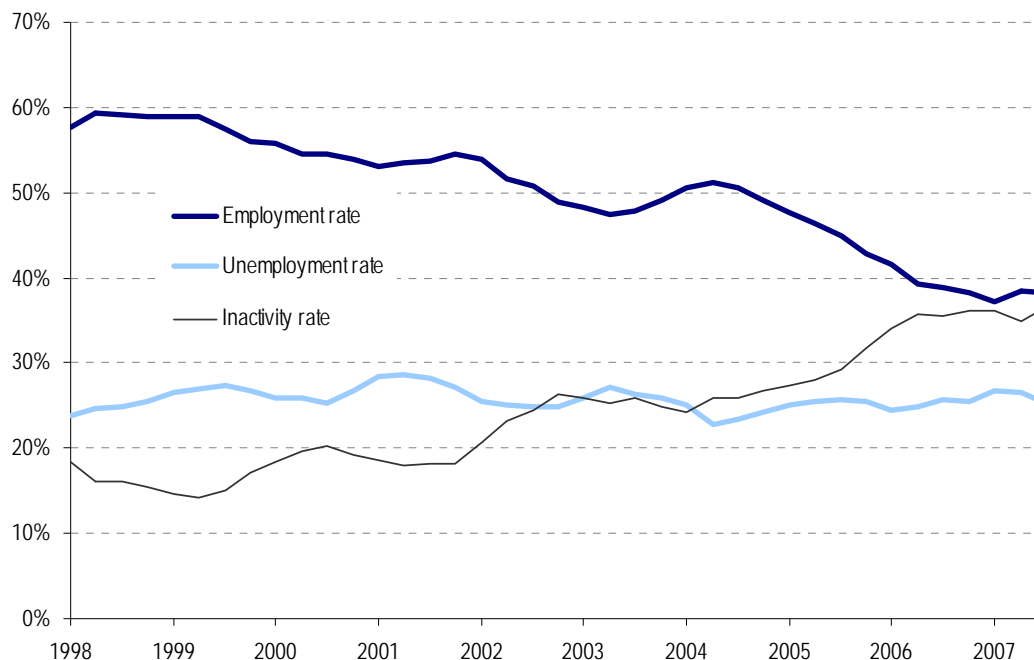
ANNEX B

Employment and unemployment rates by age group

This annex provides a breakdown of employment and unemployment rates for the 16 to 23 year olds. It is a complement to the analysis in section 4 on the labour market for younger workers.

Chart B1: Employment, unemployment and inactivity rates of 16 year olds excluding full-time students and graduates

Per cent, four quarter (annual) average



Source: Office for National Statistics, Labour Force Survey. 4-quarter averages.

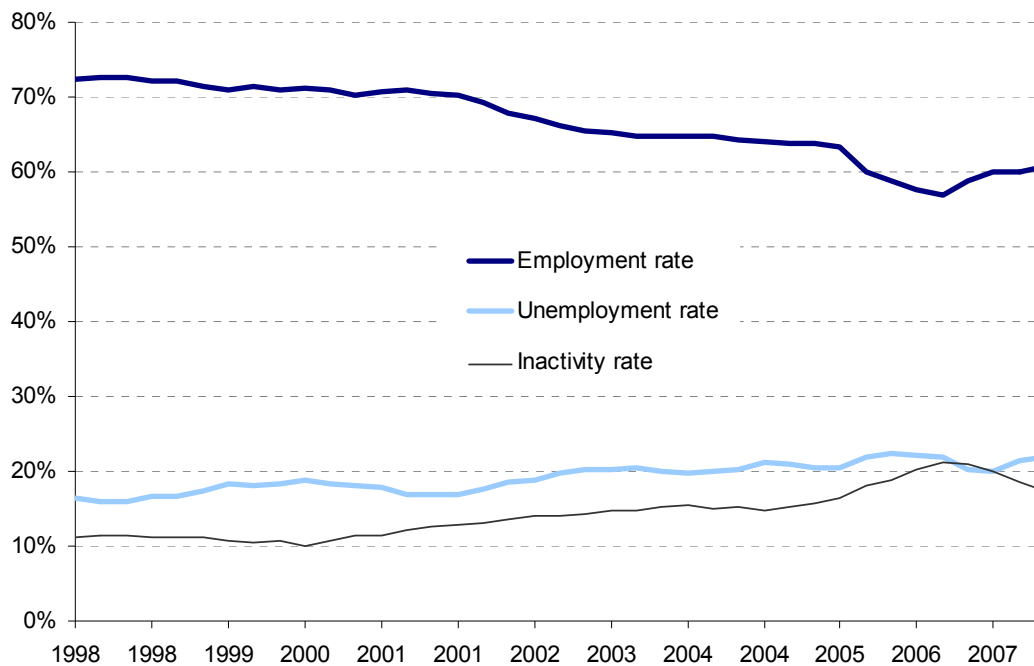
Not seasonally adjusted.

Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.

See annex H for further information on the switch between season and calendar quarter LFS data.

Chart B2: Employment, unemployment and inactivity rates of 17 year olds excluding full-time students and graduates

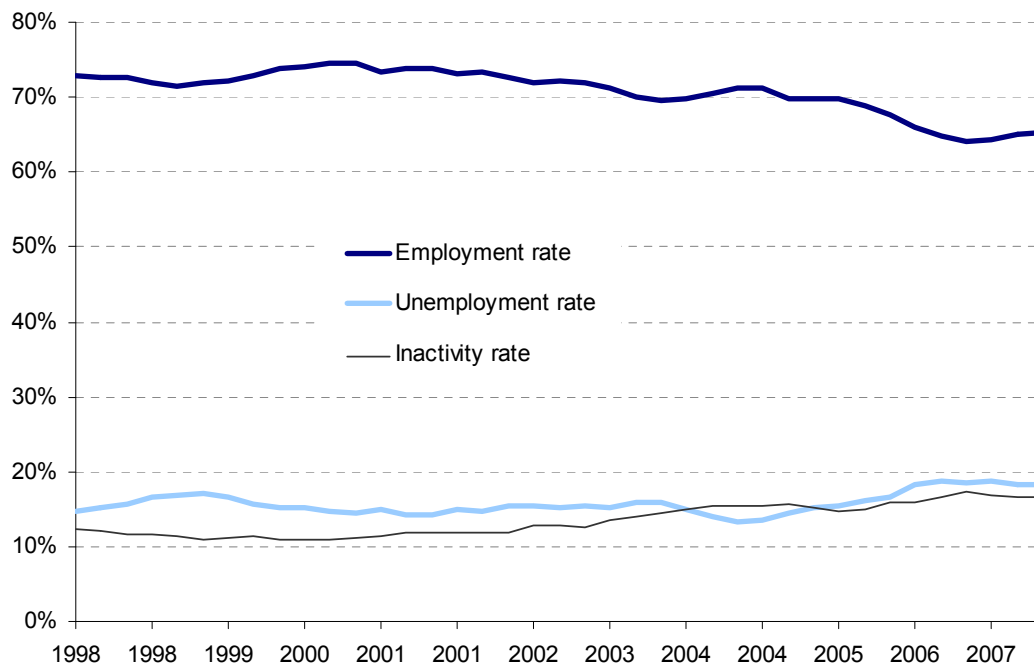
Per cent, four quarter (annual) average



Source: Office for National Statistics, Labour Force Survey. 4-quarter averages.
 Not seasonally adjusted.
 Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.
 See annex H for further information on the switch between season and calendar quarter LFS data.

Chart B3: Employment, unemployment and inactivity rates of 18 year olds excluding full-time students and graduates

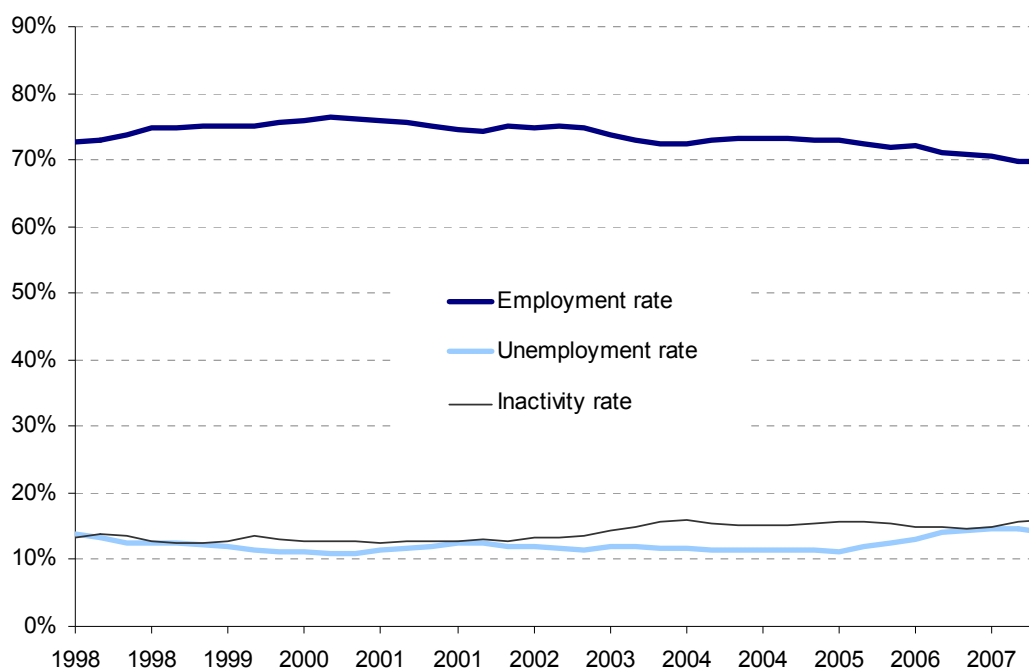
Per cent, four quarter (annual) average



Source: Office for National Statistics, Labour Force Survey. 4-quarter averages.
 Not seasonally adjusted.
 Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.
 See annex H for further information on the switch between season and calendar quarter LFS data.

Chart B4: Employment, unemployment and inactivity rates of 19 year olds excluding full-time students and graduates

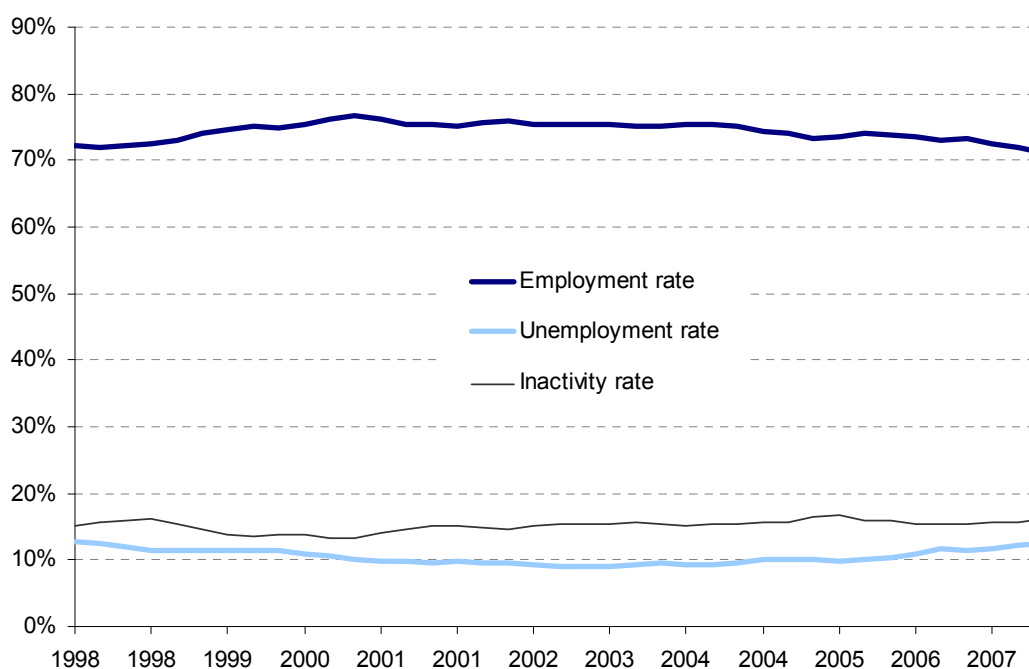
Per cent, four quarter (annual) average



Source: Office for National Statistics, Labour Force Survey. 4-quarter averages.
 Not seasonally adjusted.
 Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.
 See annex H for further information on the switch between season and calendar quarter LFS data.

Chart B5: Employment, unemployment and inactivity rates of 20 year olds excluding full-time students and graduates

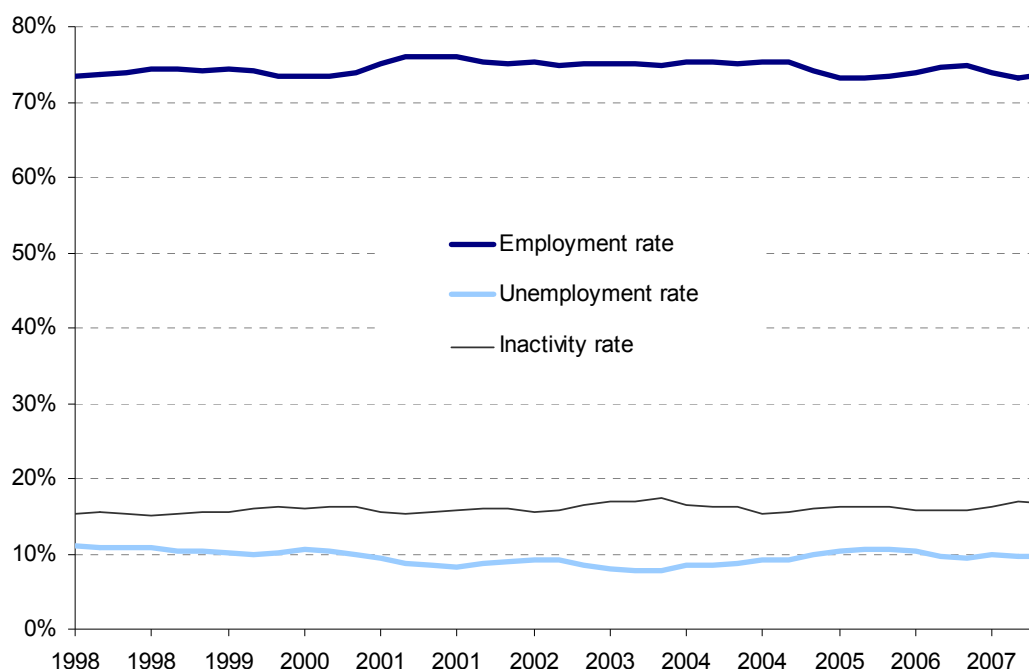
Per cent, four quarter (annual) average



Source: Office for National Statistics, Labour Force Survey. 4-quarter averages.
 Not seasonally adjusted.
 Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.
 See annex H for further information on the switch between season and calendar quarter LFS data.

Chart B6: Employment, unemployment and inactivity rates of 21 year olds excluding full-time students and graduates

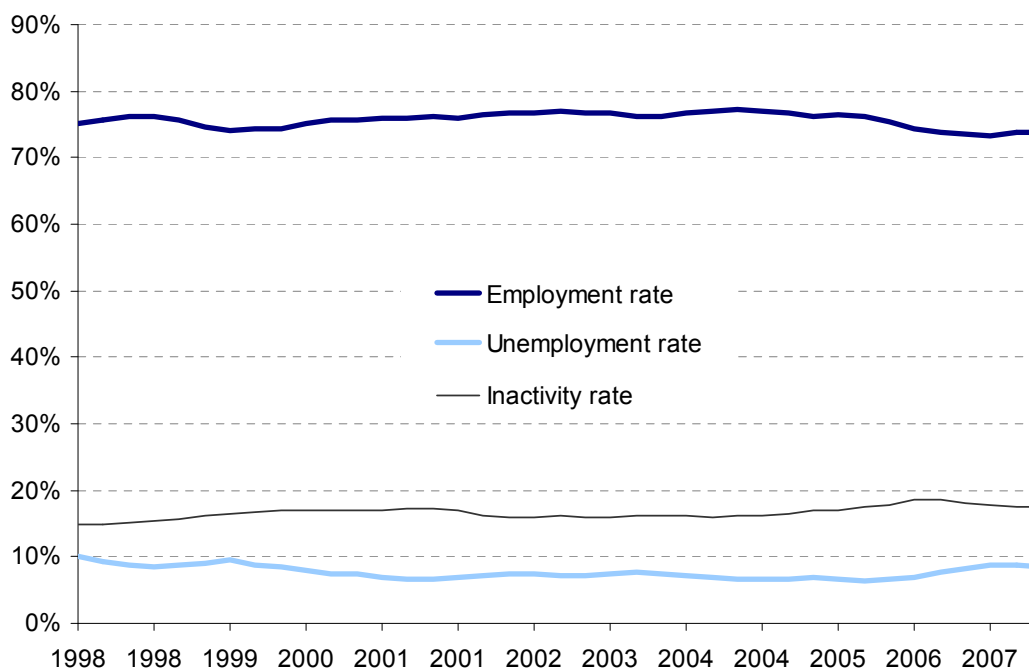
Per cent, four quarter (annual) average



Source: Office for National Statistics, Labour Force Survey. 4-quarter averages.
 Not seasonally adjusted.
 Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.
 See annex H for further information on the switch between season and calendar quarter LFS data.

Chart B7: Employment, unemployment and inactivity rates of 22 year olds excluding full-time students and graduates

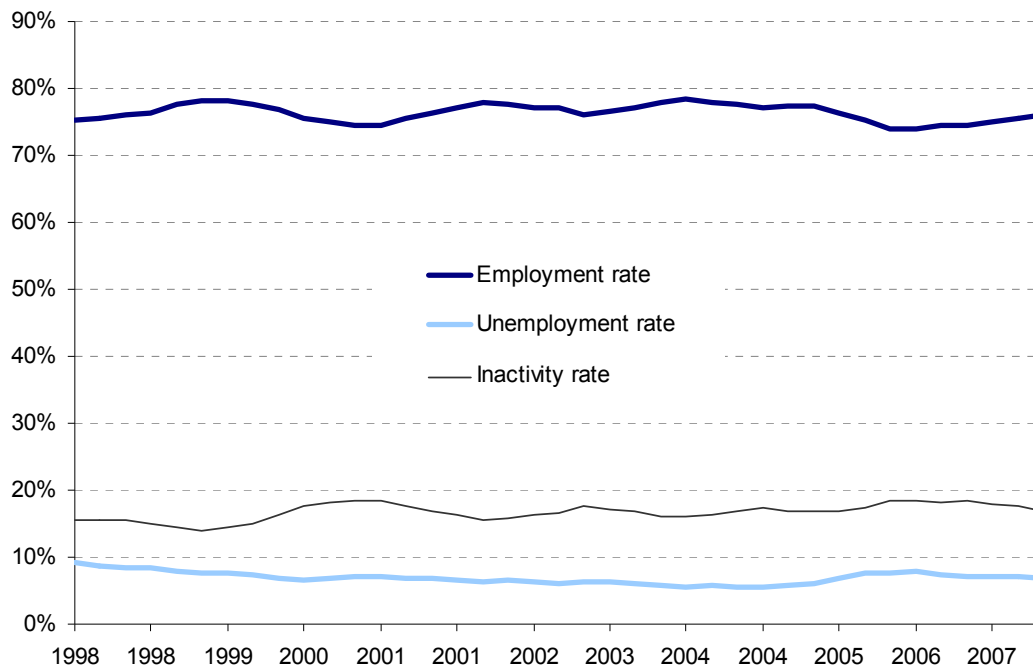
Per cent, four quarter (annual) average



Source: Office for National Statistics, Labour Force Survey. 4-quarter averages.
 Not seasonally adjusted.
 Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.
 See annex H for further information on the switch between season and calendar quarter LFS data.

Chart B8: Employment, unemployment and inactivity rates of 23 year olds excluding full-time students and graduates

Per cent, four quarter (annual) average



Source: Office for National Statistics, Labour Force Survey. 4-quarter averages.

Not seasonally adjusted.

Results for Q3 2005 and earlier are calculated from seasonal LFS microdata.

See annex H for further information on the switch between season and calendar quarter LFS data.

ANNEX C

Regional employment in low-paying industries

Table B.1. Employee jobs in the low-paying sectors by region (000's)

	North East	North West	Yorkshire & Humber	East Midlands	West Midlands	Eastern	London	South East	South West	Wales	Scotland	Great Britain	Y/Y*
Retail													
1996	117	356	250	204	263	289	397	438	263	128	273	2979	2.4
1997	119	349	252	206	264	306	408	444	265	131	271	3013	1.1
1998	125	379	280	221	285	317	406	473	287	143	279	3195	6.0
1999	128	387	262	211	282	295	439	484	291	137	278	3194	0.0
2000	128	387	284	224	292	325	431	502	303	145	280	3302	3.4
2001	126	401	290	235	304	331	440	529	310	154	306	3426	3.8
2002	134	402	302	236	305	344	435	531	325	159	306	3479	1.6
2003	134	408	307	246	304	353	424	521	333	160	304	3493	0.4
2004	135	417	315	259	319	351	425	520	337	166	300	3545	1.5
2005	138	411	313	256	310	351	423	513	322	169	289	3495	-1.4
Hospitality													
1996	57	166	128	89	125	116	224	198	143	65	153	1465	3.4
1997	59	178	130	91	115	121	249	202	146	67	150	1508	2.9
1998	60	188	133	99	130	126	245	208	149	70	156	1564	3.7
1999	66	182	129	100	134	126	273	224	143	77	151	1606	2.7
2000	59	183	128	100	129	135	265	232	149	67	165	1611	0.3
2001	63	187	127	103	134	136	275	229	159	75	168	1656	2.8
2002	63	202	129	105	136	138	289	243	164	69	169	1708	3.1
2003	63	207	130	106	133	141	299	245	173	73	168	1737	1.7
2004	63	204	142	107	146	144	289	256	172	81	171	1775	2.2
2005	70	204	137	112	147	133	300	254	169	81	174	1781	0.3
Investigation and security activities													
1996	4	14	9	9	9	6	27	13	6	3	11	112	8.7
1997	7	15	10	7	10	8	28	15	7	4	11	121	8.0
1998	5	16	13	8	9	7	31	17	7	4	10	128	5.9
1999	6	17	11	8	9	7	34	18	6	4	12	133	3.7
2000	6	17	10	7	8	9	33	17	6	4	13	132	-0.6
2001	7	18	9	8	10	10	39	18	8	5	14	146	10.4
2002	6	20	11	11	11	10	39	20	9	5	12	152	4.3
2003	7	20	11	10	11	12	40	19	9	5	13	156	2.4
2004	6	21	12	10	11	13	38	19	13	5	14	162	3.9
2005	6	20	12	12	11	12	39	21	12	6	16	165	2.1
Industrial cleaning													
1996	17	53	41	26	42	49	97	62	33	21	49	490	-2.2
1997	17	51	40	28	48	47	90	62	33	19	45	479	-2.2
1998	17	54	44	33	53	51	96	62	32	18	47	508	5.9
1999	14	50	41	27	44	45	96	62	29	18	42	469	-7.7
2000	12	48	42	26	43	49	102	64	31	18	48	482	2.9
2001	14	52	38	24	46	43	96	62	31	13	46	463	-4.0
2002	15	53	39	25	46	45	93	63	33	14	41	466	0.7
2003	14	49	39	19	45	42	89	69	34	14	45	459	-1.5
2004	55	41	37	21	45	38	94	76	32	17	44	423	-8.0
2005	17	38	35	17	40	37	97	67	32	15	46	442	4.5
Social work activities													
1996	41	112	79	67	80	78	123	144	93	50	97	963	8.4
1997	41	109	76	60	74	77	112	123	86	46	82	885	-8.2
1998	41	108	77	62	78	79	119	121	90	47	72	893	1.0
1999	43	118	82	60	83	77	115	127	86	48	81	921	3.0
2000	43	115	78	62	81	79	116	128	87	49	82	920	0.0
2001	46	120	85	66	82	91	118	137	92	52	85	975	5.9
2002	46	120	91	65	82	84	123	137	89	55	94	985	1.1
2003	49	121	95	75	87	83	116	140	89	56	100	1010	2.5
2004	47	121	99	74	91	91	124	143	96	59	106	1050	4.0
2005	48	127	98	80	102	94	132	152	104	64	117	1118	6.5

	North East	North West	Yorkshire & Humber	East Midlands	West Midlands	Eastern	London	South East	South West	Wales	Scotland	Great Britain	Y/Y*
Leisure													
1996	18	57	41	30	37	41	94	68	37	21	51	497	2.0
1997	19	56	44	31	38	42	96	68	39	22	50	507	1.9
1998	19	53	39	28	36	42	93	69	36	21	48	485	-4.2
1999	20	55	40	31	40	47	107	74	40	23	50	529	9.1
2000	20	59	46	35	41	48	103	83	41	24	52	552	4.4
2001	19	60	49	35	45	50	116	89	44	23	53	584	5.6
2002	24	66	49	39	47	55	114	89	46	24	57	612	4.8
2003	25	65	50	37	47	55	105	91	48	24	57	604	-1.2
2004	24	69	53	38	48	53	112	88	49	28	59	622	3.0
2005	29	72	58	43	54	58	169	100	52	32	71	736	18.3
Hairdressing													
1996	4	10	7	7	9	10	13	16	8	5	9	98	11.2
1997	4	10	7	6	8	10	15	16	8	4	8	97	-1.4
1998	5	10	7	6	9	9	14	15	8	4	9	95	-1.6
1999	5	12	7	6	9	10	15	16	9	4	9	102	6.8
2000	4	12	7	6	9	10	15	17	9	5	9	103	0.9
2001	4	11	7	6	9	10	15	17	8	4	9	100	-2.5
2002	4	13	8	7	8	10	13	15	8	4	9	101	1.0
2003	5	13	8	7	10	11	14	18	8	4	10	108	6.4
2004	5	14	8	8	9	10	15	17	9	5	10	111	2.9
2005	5	13	10	9	11	11	14	19	9	5	11	117	6.0
Textiles													
1996	16	62	51	78	23	10	22	8	11	13	38	331	0.3
1997	14	60	47	69	23	9	25	8	12	12	34	313	-5.7
1998	15	58	42	71	23	9	22	7	10	11	32	299	-4.3
1999	12	51	36	60	20	8	21	7	10	9	29	263	-12.2
2000	9	50	33	53	17	7	17	6	7	7	22	227	-13.4
2001	8	41	29	43	15	7	14	5	8	7	19	194	-14.6
2002	6	37	24	33	13	6	12	5	7	6	17	165	-14.8
2003	5	32	21	28	11	6	11	4	7	5	14	145	-12.4
2004	4	29	18	25	9	6	10	4	6	4	13	127	-12.2
2005	3	24	17	20	8	5	10	4	6	4	11	112	-11.9
Agriculture, forestry and fishing													
1996	2	4	5	4	3	8	3	11	5	3	15	62	41.7
1997	1	5	5	7	4	11	3	15	5	2	13	72	16.4
1998	1	4	4	6	4	10	3	14	6	1	15	68	-5.6
1999	2	4	5	6	4	9	2	13	5	2	14	64	-5.0
2000	1	4	5	7	4	10	4	14	5	2	14	70	8.7
2001	2	4	5	7	4	10	3	15	5	2	15	72	2.6
2002	2	4	5	7	5	10	2	14	5	2	14	69	-4.3
2003	1	5	5	7	4	10	2	15	6	2	13	68	-1.1
2004	1	4	5	7	4	10	2	14	5	2	13	67	-1.9
2005	1	4	4	6	4	10	2	14	6	2	13	67	0.5
Food processing													
1996	16	58	58	49	35	43	22	27	36	19	41	404	-0.4
1997	17	62	67	56	34	41	24	28	40	20	40	430	6.4
1998	16	63	62	53	33	45	24	30	41	21	42	430	0.1
1999	16	64	62	58	34	43	26	28	40	19	43	433	0.8
2000	17	61	64	56	33	42	26	28	37	21	42	428	-1.2
2001	16	57	58	56	31	40	24	27	35	22	41	406	-5.2
2002	16	55	58	54	31	38	24	24	33	21	39	393	-3.1
2003	15	57	56	53	31	37	25	21	33	22	38	388	-1.4
2004	14	55	52	51	29	36	24	20	32	22	37	372	-4.0
2005	13	52	52	50	30	34	24	20	32	21	37	365	-1.9

Source: 1996-1997 Annual Employment Survey Rescaled; 1998-2005 Annual Business Inquiry; ONS*Y/Y shows percentage change of total regional employment from previous year.

ANNEX D

International comparison of minimum wage rates

Table D1. Current adult national minimum wage rates

Country	NMW (National Currency)	Period
Australia	A\$13.74/Hour	October 2007
Belgium	€1283,91/Month	Current
Bulgaria	BGN 180/Month	Current
Canada	C\$7.57/Hour	Dec-06
Czech. Republic	CZK 8000/Month	Current
Estonia	EEK 3600/Month	Current
France	EUR 8.44/Hour	Current
Greece (white collar)	EUR 767.54/Month	1st May 2007
Greece (blue collar)	EUR 29.37/Day	1st May 2007
Hungary	HF 65500/Month	Current
Ireland	EUR 8.65/Hour	1st July 2007
South Korea	Won 3480/Hour	Current
Latvia	Lats 120/Month	Current
Lithuania	LTL 600/Month	1st July 2007
Luxembourg	EUR 1570/Month	January 2007
Malta	LM 59.63/Week	Current
New Zealand	NZ \$ 11.25/Hour	1st April 2007
Poland	PLN 936/Month	Current
Portugal	EUR 470/Month	1 st January 2007
Romania	RON 440/Month	Current
Slovakia	EUR 217/Month	January 2007
Slovenia	EUR 538.53/Month	1 st August 2007
Spain	EUR 666/Month	Current
Netherlands	EUR 1301/Month	Jan-07
UK	£5.52/Hour	October 2007
USA	US \$ 5.85/Hour	1st July 2007

Table D2. International comparison of NMW bite

Country	NMW	Average Wage	Period	NMW as a % of mean	Median Wage	Period	NMW as a % of median
Australia	A\$ 13.74/Hour	A\$ 28.2/Hour	May-07	48.72%	A\$ 25.9/Hour	2006	53.05%
Belgium	€1283,91/Month	€ 2703/month	2005	47.50%			
Bulgaria	BGN 180/Month	BGN 355/Month	2006	50.70%	€ 186/Month	Feb-07	
Canada	C\$7.57/Hour	C \$ 20.71/Hour	First half of 2007	36.55%			
Croatia	HRK 804.3/Month	4774/Month	First half of 2007		€ 888/Week	Feb-07	
Czech Republic	CZK 8000/Month	20938/Month	First half of 2007	38.21%	€ 641/Week	Feb-07	
Denmark	N/A	DKK 153.29/Hour	2006				
Estonia	EEK 3600/Month	N/A	N/A	N/A	EEK7325/Month	Feb-07	49.15%
Finland	N/A	€ 2555/Month	2005				
France	€ 1280/Month	€ 2538.6/Month	2005	50.42%			
Germany	N/A	€ 2582/Month	2006				
Germany	N/A	€ 3510/Month	2006				
Greece	€ 767.54/Month	€ 1183.96/Month	First half of 2007 (estimated)	64.83%	€ 922/Month	Jun-06	83.25%
Hungary	HUF 65500/Month	HUF 158000/Month	2005		HUF 174868.2/Month	Feb-07	37.46%
Italy	N/A	€ 1788.8/Month	Year to August 2007				
Japan	YEN 673/Hour	YEN 2650/Hour	First half of 2007	25.40%			
Korea South	WON 603200/Month	WON 2575000/Month	First half of 2007	23.43%			
Latvia	Lats 120/Month	LATS 302/Month	2006	39.74%	Lats 292/Month	Feb-07	41.10%

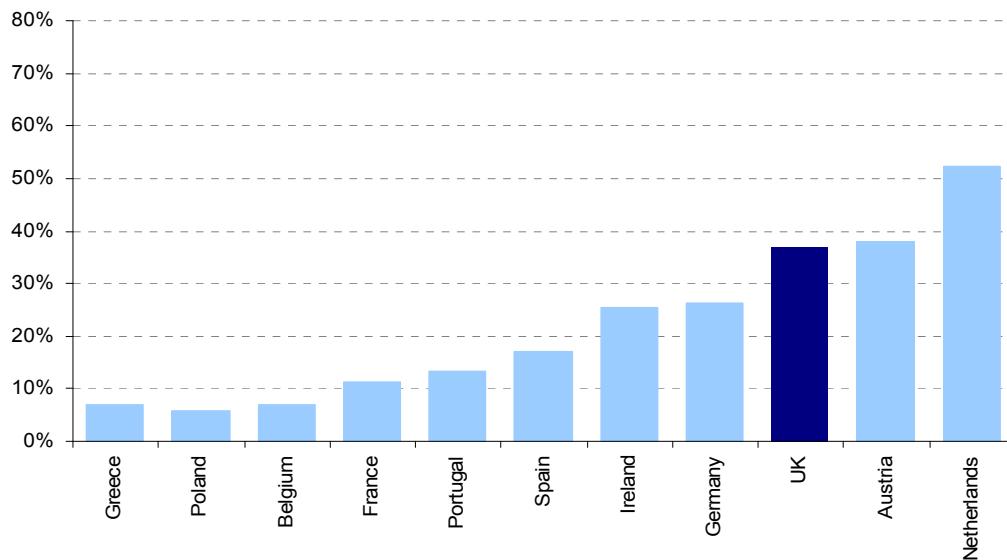
Country	NMW	Average Wage	Period	NMW as a % of mean	Median Wage	Period	NMW as a % of median
Lithuania	LTL 600/Month	LTL 1723/Month	First half of 2007 Quarter Ending	34.82%	LTL 1391/Month	Feb-07 Quarter ending	43.13%
New Zealand	NZ \$ 11.25/Hour	\$21.41/Hour PLN	June 2007	52.55%	NZ \$ 18/Hour PLN	June 2007	62.50%
Poland	PLN 936/Month	2676.65/Month LEI	First half of 2007 Quarter ending	34.97%	2230.6/Month RON	Feb-07	41.96%
Romania	RON 440/Month	1330.8/Month	First half of 2007 June 2007	33.06%	1250/Month	Feb-07	35.20%
Slovakia	€ 217/Month	€ 584/Month €	First half of 2007	37.16%	€ 658.7/Month	Feb-07	32.94%
Slovenia	€ 538.53/Month	1245.11/Month	First half of 2007	43.25%	€ 1153/Month	Feb-07	46.71%
Spain	€ 666/Month	€ 1847.7/Month YTL	2007	36.04%			
Turkey	YTL 710.88/month £5.35/hour from Oct 2006	1379/Month (Manf. Sector)	First half of 2007	51.55%			
UK ²⁷	£5.52/Hour from Oct 2007	£13.38/Hour	First half of 2007	39.99%	£ 10.37/Hour US\$	First half of 2007	51.59%
USA	US \$ 234/Week	\$690/week	2nd quarter 2007	33.91%	584.4/Week	2006	40.04%

²⁷ The UK median and mean bites have been calculated using the £5.35 minimum wage which prevailed between October 2007 and September 2007, as this is the rate which is consistent with the latest available data on average and median wages.

ANNEX E

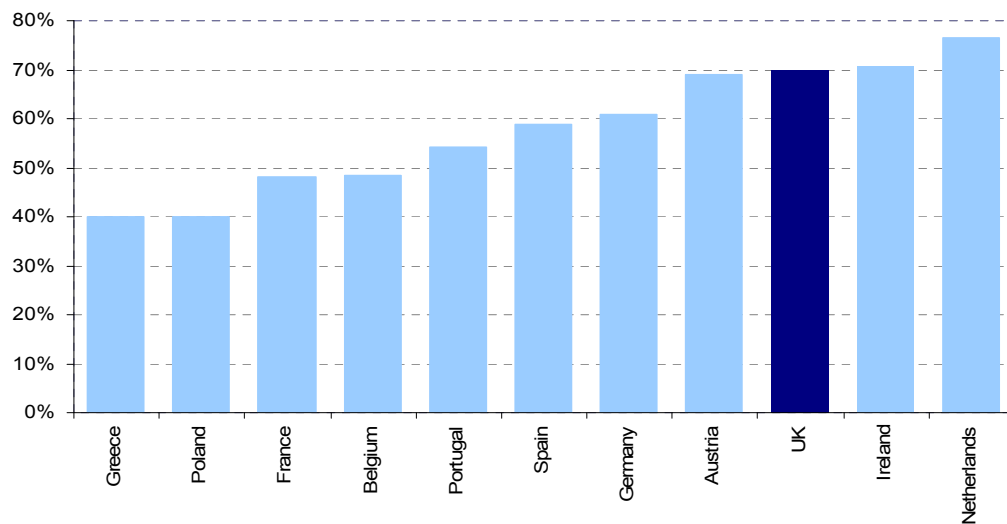
European employment and unemployment rates

Chart E1. Employment rate 16-19 year olds, 2007



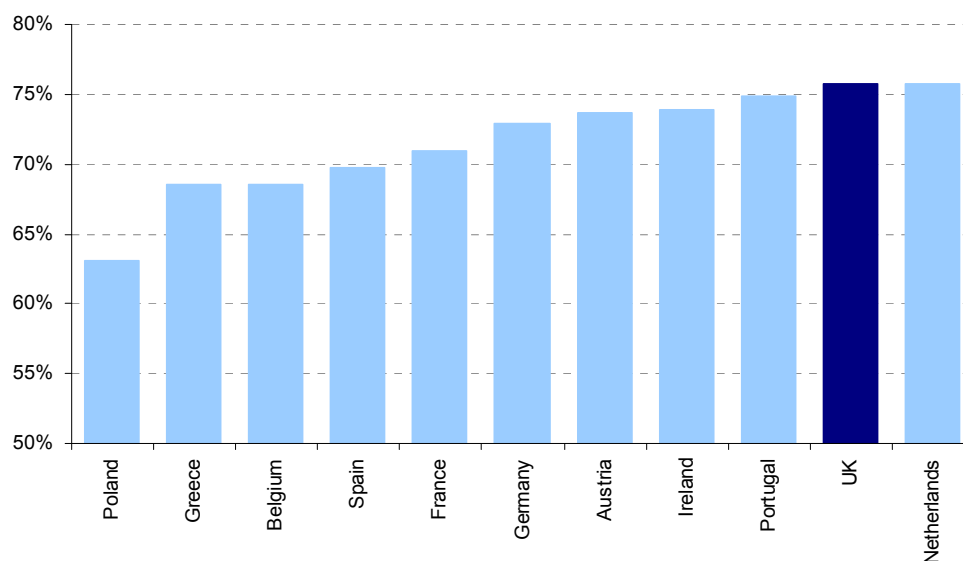
Source: Eurostat
Germany rate for Q1 2005

Chart E2. Employment rate for 20-24 year olds, 2007



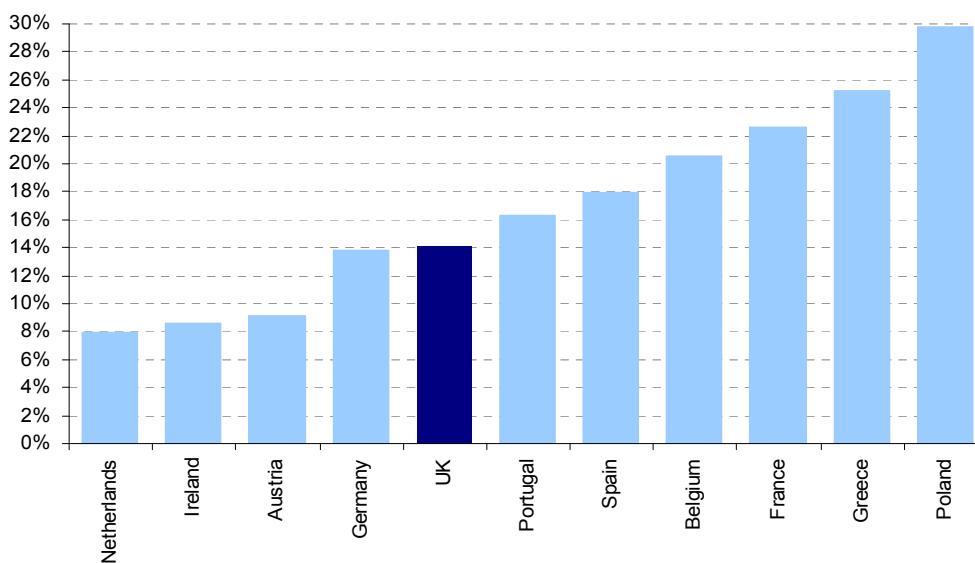
Source: Eurostat

Chart E3. Employment rate for 25-64 year olds, 2007



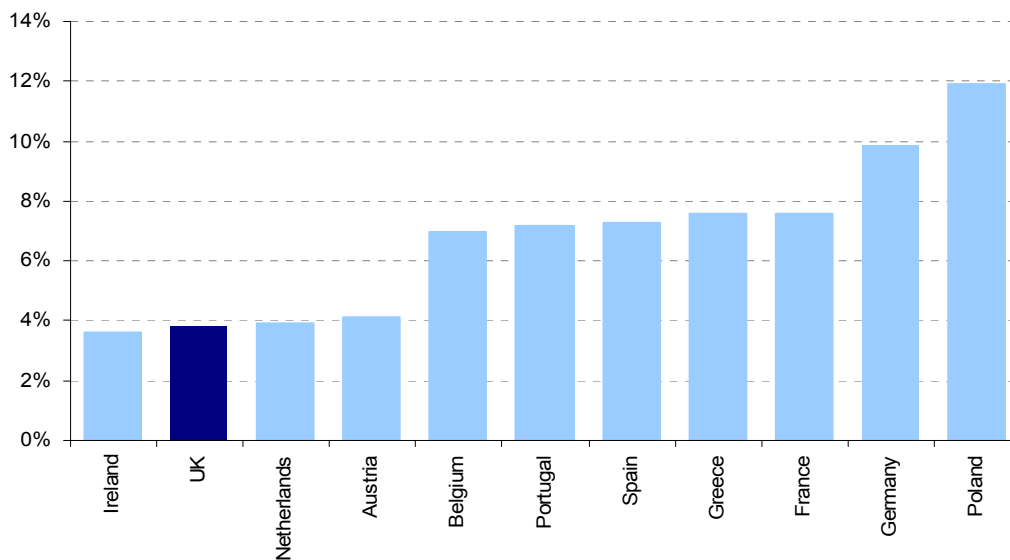
Source: Eurostat

Chart E4. Unemployment rate for 15-24 year olds, 2007



Source: Eurostat

Chart E6. Unemployment rate for 25-64 year olds, 2007



Source: Eurostat

ANNEX F

Review of recent minimum wage research

This short review summarises the recent empirical analysis of the labour market impacts of minimum wages. It focuses on UK research but also highlights some international, particularly US, evidence. For completeness this overview considers the recent literature which has been commissioned by the LPC.

Employment effects

There are three broad approaches to analysing the impact of minimum wages on employment using:

- ***Individual-level longitudinal data to estimate the impact on individual employment and hours worked.*** For example, Stewart (2004a and 2004b) compared the employment experience of individual workers affected with those not affected by the minimum wage. He found little evidence that the introduction of the National Minimum Wage, or the 2000 and 2001 upratings, had an adverse impact on the probability of employment. Dickens and Draca (2005) considered the 2003 uprating, finding insignificant disemployment effects. Jones et al (2006) found that increases in the exit rate from employment, as measured by ASHE, was actually less for the low-paid than the high paid.
- ***Spatial data to explore whether employment declined more in areas with a high proportion of low-wage jobs.*** Stewart (2002) analysed employment changes across 140 areas for the period straddling the introduction of the NMW. Stewart's estimates show no or negative impacts on employment (for example, a 5% rise in the wages for the 5th and 10th percentile was reflected in a 2% reduction in employment), but the latter was not statistically significant. However, Galindo-Rueda and Pereira (2004) did find that the net growth in employment was slightly less in areas with a relatively high proportion of workers affected by the NMW. While Experian's (2006) study of the relationship between the NMW bite and regional employment found no association for retail, there was a small negative impact on employment in the hospitality sector from the 2003 and 2004 upratings.
- ***Using firm level data to examine whether or not employment fell relatively more in those workplaces with a high proportion of low paid individuals.*** Kersley et al (2004) used the Workplace Employment Relations Survey to find no difference in closure rates between low-paying and other workforces, and low-paying workplaces were less likely to experience a fall in employment of over 25 per cent. Draca et al (2006) also found no correlation between the introduction of the NMW and closures, although they found a fall in profit margins. However, a number of studies of the care home sector have found employment effects. Machin and Wilson (2004) found that those firms affected by the

NMW were likely to suffer relative employment falls: for example, a 10 per cent increase in the proportion initially paid below the NMW was associated with 1.3 per cent lower employment growth. There is also evidence of a negative effect on hours.

Overall, while evidence is mixed, there is a lack of strong evidence of negative employment consequences from the introduction and subsequent upratings of the adult National Minimum Wage. However, Neumark and Wascher (2007) argue that the evidence for the UK is not unambiguous. In particular, the existing UK research is limited to estimating short-term effects and there may be longer-term impacts of the minimum wage. In addition, the employment effects of the relatively larger rise in the minimum wage from 2003 to 2006 have not yet been sufficiently studied.

Indeed there are a much wider range of estimates of the effects of minimum wages on employment in the US. In particular, longer panel studies that incorporate both state and time variation in minimum wages tend to find statistically significant employment effects from minimum wage increases. In contrast, the majority of US studies that found zero or positive effects of the minimum wage on low-skill employment were either short panel data studies or sector-specific case studies (Neumark and Wascher, 2007).

Effects on hours worked

Employers in low-paying sectors may alter hours rather than levels of employment in response to minimum wages.²⁸ Therefore, it is important to look at the impact on hours worked to understand the impact of the minimum wage on the labour market.

There is some evidence that introduction of the UK National Minimum Wage may have led to a reduction of working hours, particularly over the longer-term. For example, Stewart and Swaffield (2006) found a small but insignificant effect of the minimum wage on hours worked in the UK. However, the lagged effect of the minimum wage on hours is always negative, larger in value and generally statistically significant. The study concludes that the introduction of the minimum wage led to the reduction of one to two hours per week for affected workers. Couch and Wittenburg (2001) found that raising the minimum wage reduced the hours of work of teenagers in the US. As a result, they argue that estimates of the elasticity of teen labour demand with respect to the minimum wage based on employment data consistently understate the effect of minimum wage increases on labour utilisation by 10 per cent to 30 per cent.

Effects on wage distribution

The bottom quarter of the earnings distribution has experienced faster growth than the median since the introduction of the minimum wage, with these increases being greater for those who were lowest paid (Butcher, 2005 and OECD, 2006). This implies an upward 'ripple effect' from the National Minimum Wage within the bottom part of the wage distribution. Lam et al (2006) showed that wages for jobs near the minimum level have moved closely with the minimum wage, maintaining differentials. Other studies have found no strong evidence of ripple effects when the NMW was introduced in 1999 or uprated 2000-02 (Dickens and Manning 2004a, 2004b; Dickens and

²⁸ This is because low-pay sectors have low fixed cost per worker, little on-the-job training, high labour turnover, limits to the substitution of capital for labour and a high incidence of part-time work (OECD 2006).

Draca 2005). However, there is evidence of such effects from the 2003 uprating onwards (Butcher 2005 and Dickens and Manning 2006).

However, as these ripple effects dissipate as they move up the wage distribution, there has also been compression with the average and median wage. Metcalf (2004) found that workers in the bottom decile of pay experienced above average pay rises between 1998 and 2002, with no effects further up the wage distribution. Cameron and Fernandez (2007) find that the difference between the low paid and the average paid (whether mean or median) has been compressed. However, the upper part of the income distribution has been pulling away from the middle at the same time as the lower part has been compressing the middle.

This is an area where further research is needed. Lam et al (2006) suggest that more analysis of small firms is needed, as a number of low paying sectors are dominated by very small firms, where the impact of small pay changes may be large.

Effects on younger workers

The academic evidence for the impacts of minimum wages on the young are a little more mixed, with somewhat more evidence for disemployment effects than is the case with adults.

Neathey, Ritchie and Silverman (2005) found little evidence in the retail and hospitality sectors of a link between the minimum wage and decisions to employ young workers of various ages. However, Frayne and Goodman (2005) found that every 1 per cent increase in the 16–17 year old wage resulted in a 3.6 per cent decrease in employment in hours amongst this group, implying that a minimum wage of £3.00 would reduce employment in hours by around 6 per cent.

Several international studies have found evidence that minimum wages can have disemployment effects on the young. Campolieti, Fang and Gunderson (2005) found minimum wage elasticities ranging from -0.3 to -0.5 . Wessels (2005) found significant negative effects on teenager labour force participation for 16-19 year olds in the US.

Dickerson and Jones (2004) found that a minimum wage set between £2.50 and £4.00 will have negligible effects on education participation of 16-17 year olds. However, Rice (2006) finds that the probability of continued participation of young men in full-time education declines significantly as the expected wage increases, although the effects for young women are smaller and not statistically significant. Based on this analysis, Rice (2006) suggests that the impact of 'a cautiously set' minimum wage for 16 and 17 year olds on educational and employment outcomes is likely to be small. A NMW set at a level corresponding to the lowest decile of the observed distribution of actual earnings would reduce the expected participation rate in full-time further education among young males by no more than 1 percentage point. A more generous NMW set at the equivalent of the lower quartile would result in a decline of between 1 and 2.4 percentage points depending on the extent of the spillover effects on the overall distribution of wage offers.

Effects on profitability and prices

The impact of the minimum wage on employment will be muted the greater the extent to which the rise in labour costs is passed on in the form of higher prices or absorbed in a fall in profits.

The impact on overall inflation of the NMW is likely to be small, as the NMW only applies to a relatively small proportion of total jobs. However, there is some evidence of increases in the relative prices of goods and services produced by minimum wage workers. Wadsworth (2007) found prices rose, on average, by an extra 0.8 per cent a year relative to the RPI after the NMW was introduced.

There is also some limited evidence that the initial introduction of the NMW caused a relative fall in profits in the more affected firms. Draca et al. (2006) found that average profit margins fell for those most affected by the National Minimum Wage by 8 per cent to 11 per cent, compared to the control group of higher-wage firms. Their analysis of a sample of care homes also shows that those that had to raise their wages the most experienced the biggest drop in profits. In a follow-up study, Georgiadis (2006) found a negative association between homes with a larger fraction of affected workers and profitability, but it was not statistically significant. Experian (2006) found that relative gross operating surplus in the retail and hospitality sectors between 1999 and 2004 was lower in regions where the bite of the NMW was strongest but again the association was not statistically significant.

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ANNEX G

Beneficiaries of the 2007 NMW uprating by sex and region

Table G.1. Number of workers that stand to benefit from the October 2007 National Minimum Wage uprating by age and sex

	Male	Female	Total
16-17	15	11	26
18-21	53	45	98
22 and over	264	533	796
Total	332	589	920

Source Office for National Statistics, Annual Survey of Hours and Earnings

These data take account average earnings growth between the period April 2006 and September 2007; uprating from £3.30 to £3.40 for 16-17 year olds, £4.45 to £4.60 for 18- 21 year olds and from £5.35 to £5.52 for those 22 and over. ASHE measures number of jobs; therefore beneficiaries calculated assuming workers do not hold more than one job at the NMW. Numbers may not sum to total due to rounding.

Estimates of beneficiaries by country and government office region are also provided (Table 2).

Table G.2. Number of workers that stand to benefit from the October 2007 National Minimum Wage uprating by country and government office region

Country or region	Beneficiaries
Wales	50
Scotland	88
Northern Ireland	40
England	741
North-East	54
North-West and Merseyside	115
Yorkshire & Humberside	80
East Midlands	82
West Midlands	96
Eastern	74
London	83
South East	68
South West	88
United Kingdom	920

Source Office for National Statistics, Annual Survey of Hours and Earnings

These data take account average earnings growth between the period April 2006 and September 2007; uprating from £3.30 to £3.40 for 16-17 year olds, £4.45 to £4.60 for 18- 21 year olds and from £5.35 to £5.52 for those 22 and over. ASHE measures number of jobs; therefore beneficiaries calculated assuming workers do not hold more than one job at the NMW. Numbers may not sum to total due to rounding.

ANNEX H

Technical note

Annual Survey of Hours and Earnings (ASHE)

The Annual Survey of Hours and Earnings (ASHE) provides information about the levels, distribution and make-up of earnings and hours paid for employees within industries, occupations and regions.

In this report, estimates for 2004-2007 have been produced using ASHE, which replaced the New Earnings Survey (NES) in 2004. ASHE improves on the NES by extending the coverage of the survey sample and introducing weighting.

From 1997-2003, estimates are based on NES datasets that have been reworked using ASHE methodology. However, these datasets exclude the supplementary ASHE information and as a result there is an inconsistency between estimates in 2003 and 2004.

A further break in the data was also introduced in 2006 when ONS introduced a small number of methodological changes, including changes to the sample design itself as well as the introduction of an automatic occupation coding tool.

To identify these changes, ONS publish two estimates for both 2004 and 2006 – one on the new methodology and one based on the previous methodology. Where appropriate these inconsistencies are identified in this report.

Labour Force Survey (LFS)

In 2006 the structure of the Labour Force Survey switched from a seasonal quarter basis to a calendar quarter basis. The last set of published LFS seasonal results covered winter 2005. In accordance with European Union regulations, all subsequent quarters have been published on a calendar quarter basis.

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