FEATURE

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Labour demand: The need for workers

SUMMARY

This article looks at the labour input actually employed by private firms and public organisations. This gives labour demand as the total number of jobs in the economy and the number of hours worked by people in employment. However, at any point in time, part of an employer's needs for labour may remain unmet. Unmet labour demand is presented through statistics on vacancies, and also gives an insight into whether job creation is falling or rising. In addition, the article looks at other issues relating to the demand for labour, namely job separations and re-employment, skills, and the relationship between labour demand and the economic cycle.

Labour demand is based on microeconomic foundations for each individual employer. Both private firms and public sector bodies will seek to employ an optimal combination of labour and capital. This complex calculation is the basis on which employers decide their level of labour demand, enabling the use of labour as a key input in production. Therefore, labour demand is 'derived demand' because, before firms need workers, there must first be a demand for the goods and services they produce.

Statistics of labour demand are designed to illustrate the need for labour by employers for producing their output. The statistical picture is complicated, as employers may fill vacancies with people who have more than one job, either with them, or another employer. A further complication is when people share the same job. Also, in some enterprises, part or all the demand for extra labour may be met by a self-employed person providing extra input.

Jobs and hours of work

Employers have interest in labour as an input in producing goods and services. This input can vary in two ways: first, through the number of people a firm employs, which is captured by statistics on the number of jobs in the economy, and second, through the number of hours employed people work, which is captured by statistics on hours of work.

Jobs

The number of jobs in the UK economy has been following an upward trend since

1959, when the current series first became available.¹ There have been noticeable variations around this trend, linked closely to the economic cycle. Two examples of this are the fall in the number of jobs in the periods following 1979 and 1989, which coincided with two periods of negative Gross Domestic Product (GDP) growth.^{2,3} In the three months to June 2008, there were 31.7 million jobs in the economy, which was a record high since comparable records began (**Figure 1**). However, the three months to September 2008 showed a fall to 31.5 million jobs, reflecting a fall in labour demand.

Employee jobs represent most jobs in the UK. The number of employee jobs has grown from 22.8 million jobs in the three months to June 1959 to 27.2 million in the three months to June 2008, equivalent to an increase of 19.3 per cent. However, there has been a decline in the percentage of all jobs which are employee jobs, from 89.5 per cent in 1959 to 86.0 per cent in 2008. This reflects the growth in self-employment over the period.

Jobs by industry

Figure 2 shows, for the three months to September, the number of employee jobs by industry in 1978 (when a breakdown by industry first became available) and 2008. The largest increase has been in the finance and business services industry, where the number has more than doubled. There are also large increases in public administration, education and health (up by 42.5 per cent), distribution, hotels and restaurants (up by 35.1 per cent), and other

Figure 1
Workforce jobs, 1959 to 2008¹

Note:

1 Three months to June.

Source: *Employee Jobs*

Figure 2
Employee jobs: by industry, 1978 and 2008¹

Note:

1 Three months to September.

Source: *Employee Jobs*

services, which includes, for example, the activities of employers' organisations and of libraries (up by 56.4 per cent). In contrast, the extraction and production industries, made up of agriculture and fishing, energy and water, manufacturing, and construction, showed a combined fall of 50.8 per cent, from 9.4 million employee jobs in 1978 to 4.6 million in 2008. Manufacturing alone accounted for around 85.3 per cent of this decline, with the number of employee jobs in this sector falling from 6.9 million in 1978 to 2.8 million in 2008.

These job figures reflect the structural changes that have taken place in the UK economy, with a declining proportion of total output produced by the extraction and production industries, and an increasing proportion of total output produced by the service sector. Employee jobs in the service sector comprised 61.4 per cent of all employee jobs in 1978, compared with 83.0 per cent in 2008. Over the same period, the percentage of employee jobs in manufacturing fell from 28.4 per cent to only 10.4 per cent (**Figure 3**).

Job densities

Estimates of the number of jobs in local authority areas in the UK can be compared with the population below state pension age to produce estimates of job densities (**Map 1**). These provide an indication of the level of labour demand from employers in an area (number of filled jobs), against the potential labour supply (resident population below state

pension age in an area) and should not be confused with the employment rate (which compares resident employment levels to the resident population). The main data sources for estimates of the number of jobs are employer surveys. These are then compared with the official mid-year population estimates for people below state pension age. In the analysis for this article, below state pension age is defined as all males aged between 16 to 64, and all females aged between 16 to 59. This reflects the different ages at which males and females currently become eligible for the state pension.

Areas where the job density is greater than one show more jobs in an area than residents who are below state pension age. This can signify the presence of inward commuting (although care needs to be taken in interpretation as an individual can have more than one job). Estimates of less than one show there are fewer jobs in an area than residents below state pension age. This is a possible sign of outward commuting (although, again, caution needs to be used as not all residents below state pension age in an area would want or be able to work). Although it is not covered in this article, a further insight into these patterns can be gained by comparing the job density rates for an area with the employment rates. For example, an area with a relatively low job density may still have a relatively high employment rate, which suggests outward commuting.

Map 1 shows that metropolitan areas have higher job densities, compared with most rural or semi-rural unitary authorities. The influence of London and unitary authorities along the 'M4 corridor' can be traced by moving away from these two regions to the North East, South East and South West, where the shading becomes relatively lighter (excluding

Figure 3
Composition of employee jobs: by broad industry group, 1978 and 2008¹

Note:

1 Three months to September.

Source: *Employee Jobs*

Map 1

Job densities:¹ by unitary authority and local authority district, 2006

United Kingdom

Note:

- ¹ The job density for each local authority is calculated from the number of employees taken from the Annual Business Inquiry, which refers to December of each year; they also include self-employed, HM Forces and government-supported trainees. Job densities are calculated as the number of jobs per resident of working age (16 to 59/64).

metropolitan or authorities representing large conurbations). The insert for London highlights how the concentration of jobs and population, and commuting patterns, influence this map. Broadly speaking, there is an east/west divide around the City of London authority, which is an example of an authority with a high number of jobs and a fairly low resident population. Examples of authorities with darker shading for slightly different reasons include those in north-western Scotland and mid-Wales, which are sparsely populated.

Hours of work

As mentioned earlier, employers may vary the labour input to their production process by adjusting the number of hours that employed people work. In the short run, a firm is more likely to respond to a change in the demand for its product by adjusting hours worked rather than the number of people employed. This is because firms face costs in adjusting the size of their workforce, such as training, administration and search costs. In the presence of such costs, firms may find it more profitable to adjust hours of work rather than the number of jobs.

Variation in hours worked is viewed as an indicator that is relatively responsive to changes in labour demand. For example, consider a firm that faces an unexpected increase in the demand for its product. In the short run, to meet this increased demand, it may need its workers to work overtime. Statistics on the number of jobs will not capture this change in labour demand, as the number of people employed can remain unchanged. Statistics on hours will capture the change in labour demand, by reporting an increase in total hours worked.

Figure 4 shows total weekly hours of work in the UK since 1971 and the employment rate. Total hours of work have seen large cyclical variations, which relate closely to the economic cycle (note the reduction in hours and employment rate immediately following 1979 and 1989). In earlier years, this was closely matched by employment. However, since 1999, the employment rate has become much more stable, whereas hours worked have continued to show a steady increase.

The stability of the employment rate and the increase in total hours worked confirm the increase in employment levels over the period, but also point to the increase in potential labour supply of people below state pension age. In early 2008, total actual hours of work stood at 948 million,

exceeding the previous peak in total hours observed in 2005. Since this peak, the series has shown a slight downward movement to the most recent level of 938 million hours in the three months to September 2008.⁴

Movements in total hours of work arise as the combined effect of two forces: movements in average hours worked by individuals and movements in the number of people in employment.

Average hours worked by individuals have been on a downward trend since a peak at the end of 1994 (Figure 5). During periods of economic growth, like those experienced in the UK over the past ten years, this trend could reflect supply-side factors, for example, people increasingly choosing to work fewer hours or the increase in part-time working.

The downward trend in average hours of work implies that the growth in total hours of work observed throughout the 1990s was driven by gains in employment. Indeed, although average hours remain well below the levels seen in the early 1990s,

employment growth has increased by a larger percentage, thereby compensating for the decline in average hours.

Vacancies

Despite the opportunity to vary the number of hours employees work, part of an employer's needs for labour may remain unmet. Statistics on vacancies provide estimates on the size of this unmet labour demand. Vacancies arise when creating new posts or former jobholders leave a post. These are an outward sign that employers are acting to recruit new employees. Vacancies also provide some insight into employers' behaviour, and can act as an indicator of changes in employers' opinions of economic conditions.

From a record high in the three months to March 2008 of around 687,000, reported vacancies fell to around 602,000 in the three months to September 2008. The latest three-monthly rolling averages for October and November show further decreases in the levels of vacancies reported. Looking

Figure 4

Total actual weekly hours of work¹ and employment rate,² 1971 to 2008

Notes:

- 1 Main and second job.
- 2 The employment rate is for people between 16 and 59/64 years of age.

Source: Labour Force Survey

Figure 5

Average weekly hours of work and total number of people in employment,¹ 1992 to 2008²

Note:

- 1 All aged 16 and over.
- 2 Each calendar quarter up to three months ending September 2008.

Source: Labour Force Survey

at vacancies by industry, these fluctuate around different levels, broadly reflecting the industry size and turnover levels. The industry with the largest number of recorded vacancies for the three months to September 2008 was distribution, hotels and restaurants, with around 163,000 vacancies (**Figure 6**). Education, health and public administration also showed a consistently higher level of vacancies than most other industries, recording around 159,000 vacancies for the same period. From 2001 to the middle of 2003, the finance and business service sector showed a significant fall in the number of vacancies, followed by an increase to a record high in August 2007 (177,000). However, since then, the series has fallen to a figure of around 144,000 in September 2008.

Job separations and re-employment

Job separations occur when an employee leaves a paid job or when an employee's job is removed. Increasing frequencies of job separation can be an indicator of changes in the labour market and the economy. In periods of economic growth, it is common to see employees leaving their job to seek better ones, while in periods of downturn, redundancies may increase.

Job separations can be voluntary, when an employee leaves a job of their own accord or involuntary, when an employer initiates the separation. Redundancies, dismissals and temporary jobs ending are classified as involuntary redundancies. All other reasons are classified as voluntary job separations, including resignations and retirement. There are well over twice as many voluntary job separations as there are involuntary ones.

The position of job separations within the labour market can be ambiguous, unless interpreted in the overall context of the economy and/or demographic trends. Job separations may arise because of demand-side forces, for example, companies facing reduced demand for their products and, as such, needing a lower labour input. However, they may also arise because of supply-side forces, for example due to individuals' decisions to leave the labour market and enter retirement.

Job separations can be presented as levels or rates. Separation rates are the number of people below state pension age who separated from a paid job in the three months before interview divided by the number of people who said they were in employment for more than three months, plus those who had separated from a paid job.

Figure 7 shows voluntary and involuntary job separation rates for all people of working age from the three months to March 1997 to the three months to September 2008. Involuntary separations show the least change over the time period, the lowest being 1.0 per cent in the three months to June 2007 and June 2008, and the highest being 1.9 per cent in the three months to December 1998. The involuntary separation rate has not risen above 1.5 per cent since the three months ending March 2002. Voluntary job separation rates have shown more movement in the time period. They reached a low of 2.4 per cent in the three months to March 2006 and March 2008, and a high of 4.1 per cent in the three months to September 1998 and the three months to December in 1999 and 2000.

There is a strong seasonal pattern in job separations, with rates peaking in the three months to September and in the three months to December of every year. Typically, the rate in these quarters is between 0.6 and 1.1 percentage points higher than in the other quarters. This makes it difficult to use job separations as an indicator to assess the impact of reduced GDP growth. To overcome seasonality, a four-quarter average of job separations by reason for leaving is shown in **Table 1**. Two reasons stand out in terms of their effect on the overall movements in job separations: resignations and temporary workers. Resignations accounted for 39.8 per cent of the total in the 12 months to March 2008, while temporary job ending accounted for 14.0 per cent. Since 1998, there has been a fall in the total

Figure 6
Vacancies: by industry, 2001 to 2008¹

Note: Source: Vacancy Survey

1 Rolling three-month averages up to three months ending September 2008.

Figure 7
Job separation rates,¹ 1997 to 2008²

Notes: Source: Labour Force Survey

1 Below state pension age.

2 Each calendar quarter up to three months ending September 2008.

Table 1
Job separations: by reason, 1998 to 2008¹

United Kingdom

Millions and percentages, not seasonally adjusted

	Involuntary separations				Voluntary separations							Total (millions)
	Dismissed	Made redundant	Temporary job ended	Total involuntary separations (millions)	Resigned	Gave up work for health reasons	Took early retirement	Retired at or after statutory retirement age	Gave up work for family personal reason	Left for some other reason	Total voluntary separations (millions)	
1998	3.0	11.9	16.5	1.6	30.3	3.4	1.6	0.6	9.7	23.0	3.5	5.2
1999	3.1	12.9	15.8	1.7	34.4	3.2	1.2	0.4	8.4	20.8	3.7	5.4
2000	3.0	12.9	15.2	1.6	35.1	3.4	1.4	0.5	8.2	20.3	3.6	5.2
2001	2.3	12.2	13.7	1.5	34.7	2.9	1.3	0.3	7.9	24.7	3.8	5.3
2002	2.3	14.3	13.3	1.6	33.2	3.3	1.0	0.5	7.2	24.9	3.6	5.2
2003	2.4	14.6	13.1	1.5	34.3	3.6	1.2	0.7	7.3	22.9	3.4	4.9
2004	2.8	12.6	13.6	1.4	34.2	3.5	1.4	0.5	7.0	24.4	3.4	4.8
2005	2.8	11.6	12.3	1.3	35.3	3.4	1.2	0.6	7.7	25.1	3.5	4.8
2006	2.9	12.9	13.5	1.3	35.9	3.3	1.6	0.6	7.0	22.3	3.1	4.4
2007	2.7	12.7	14.4	1.3	36.8	3.1	1.8	0.4	7.7	20.5	3.1	4.4
2008	2.9	10.8	14.0	1.2	39.8	2.9	1.6	0.4	7.4	20.3	3.1	4.3

Note:

1 Twelve months ending March.

Source: Labour Force Survey

number of job separations, from 5.2 million to 4.3 million. The number of temporary jobs ending has decreased from around 853,000 in the 12 months to March 1998 to around 605,000 in the 12 months to March 2008. This has the impact of driving down the number of involuntary job separations from 1.6 million to 1.2 million over the same period. Resignations continue to show a rise, but all other voluntary reasons are falling, contributing to an overall drop in the number of voluntary separations, from 3.5 million to 3.1 million.

Redundancies

In **Figure 8**, the redundancy rate is higher than the unemployment rate until the three months to June 2006, having shown a significant decline since the peak observed in the three months to March 2002. For most of the time period presented, the two series are declining or fairly flat, reflecting the strength of labour demand. However, the increase in 2008 signals a weakening of the labour market. In the three months to March 2008, the redundancy rate stood at 4.4 per thousand, a record low since comparable records began in 1995; thereafter, the increase between the three months to June 2008 and the three months to September 2008 of 1.1 per thousand employees was the largest since the three months to September 2001. At the same time, the unemployment rate increased by 0.4 percentage points to 6.0 per cent, reflecting the weakening labour market.⁴

Redundancy rates by industry are available since 1997. In recent years, they have been highest in both the manufacturing sector and construction industry. In the

three months to September 2008, the redundancy rate for manufacturing stood at 7.9 per thousand, while for construction it stood at 21.3 per thousand, the highest for any industry since 1997. Historically, the industry showing the lowest redundancy rates has been public administration, education and health, with the rate not exceeding 3 per thousand employees at any point since 1997.

Table 2 (overleaf) shows re-employment rates broken down by previous industry. Re-employment rates show the proportion of people made redundant in the three months before their Labour Force Survey (LFS) interview who were in employment again at the time of their subsequent interview. The respondent's new industry category is not necessarily the same as the industry from which they were made redundant. There appears to be little relationship between redundancy rates and subsequent re-employment. Years with high

redundancies do not necessarily show high re-employment, as many redundancies in a year suggest the economy is weak and jobs may not be available.

The total services re-employment rate has decreased from 43.3 per cent in the 12 months to March 1999 to 40.6 per cent in the 12 months to March 2008, reflecting an increasingly unhealthy labour market. As the data are only available from 1997, it is not possible to compare the current re-employment rate with that observed during an economic recession. However, the total services rate has dropped sharply since peaking in the 12 months to March 2005, at 48.8 per cent. In the 12 months to March 2008, the highest re-employment rates were for people previously employed in agriculture (54.5 per cent), followed by distribution, hotels and restaurants (45.4 per cent). The lowest re-employment rate was in public administration, education and health (30.6 per cent).

Figure 8
Redundancy and unemployment rates, 1997 to 2008¹

United Kingdom

Percentages, seasonally adjusted

Note:

1 Calendar quarters up to three months ending September 2008.

Source: Labour Force Survey

Table 2

Re-employment rates in the three months after redundancy: by previous industry, 1999 to 2008¹

United Kingdom

Percentages, not seasonally adjusted

	Agriculture, fishing, energy and water	Manufacturing	Construction	Distribution, hotels and restaurants	Transport and communication	Banking, finance and insurance	Public administration, education and health	Total services
	(A–C, E)	(D)	(F)	(G–H)	(I)	(J–K)	(L–N)	(G–Q)
1999	38.9	42.1	38.7	44.1	43.4	47.5	37.8	43.3
2000	48.2	41.0	45.7	48.1	57.2	46.6	39.8	46.9
2001	50.7	43.5	43.2	45.1	59.6	54.7	46.0	49.9
2002	51.0	43.0	45.0	47.9	42.0	44.2	34.6	44.3
2003	41.7	41.7	42.4	39.6	44.4	40.1	37.5	40.4
2004	51.1	44.4	37.2	49.7	43.6	47.1	43.4	46.2
2005	46.8	47.4	58.6	54.0	49.8	44.0	47.7	48.8
2006	41.8	39.2	47.0	45.1	33.4	38.5	46.8	41.6
2007	50.0	40.5	42.7	44.9	37.7	35.9	32.5	38.5
2008	54.5	40.0	38.9	45.4	37.2	41.7	30.6	40.6

Note:

Source: Labour Force Survey

1 Twelve months ending March.

Skills

The level of skills in the workforce is of particular importance to employers and is an important feature in the demand for labour. This is because a rise in the skills level of people employed by a firm is associated with an increase in productivity. In addition, there is a link between investment in skills and innovation and flexibility. As a result, skills and skill shortages have a significant impact on many economic measures such as productivity, GDP growth, employment and earnings.

Over the past century, the UK has experienced dramatic changes in the structure of the economy, with a shift from an economy based on manufacturing to one where the service sector is dominant. The labour market has had to adjust in response to the changing demand for certain skills to avoid a mismatch between demand and supply. When a mismatch exists, employers may face skill shortages or skills gaps.

Skill shortages and gaps

Skill shortages are defined as recruitment difficulties caused by a shortage of individuals with the required skills in the accessible labour market. Skills gaps are deficiencies in skills of an employer's existing workforce, both at the individual level and overall, which prevent the firm from achieving its business objectives. Skills gaps arise from inadequate training.

The 2007 National Employers Skills Survey (NESS), which covers business activity in England, found that 7 per cent of establishments reported having hard-to-fill vacancies (HtFV). Also, 5 per cent of establishments reported skill-shortage vacancies (SSV) as part of the reasons these positions were proving hard to fill.

Comparison with previous surveys since 2001 shows that, while the proportion of all employers facing HtFVs and HtFVs caused by skills shortages has remained stable, the number of SSVs as a proportion of total employment fell from 2001 to 2007.

The pattern of recruitment difficulties by occupation showed a particular concentration of skills shortages among 'skilled trades' and 'associate professionals'. These occupation groups both accounted for 14 SSVs per thousand employees and, together, only 14 per cent of those in total employment (as covered by NESS). Conversely, 'managers' accounted for around 18 per cent of total employment and only 2 SSVs per thousand employees.

Regionally, London faced the most acute problem in skill shortages in 2007. It accounted for 18 per cent of total employment (as covered by NESS) and 25 per cent of all SSVs. This is in direct contrast to the situation that existed at the time of the 2005 NESS, when London had a similar proportion of employment, but had only 11 per cent of SSVs. The South East region also reflected high levels of competition for skilled workers, with 16 per cent of total employment and 20 per cent of all SSVs. For all other regions, the proportion of SSVs was in line with their share of employment.

Looking at the nature of skills lacking with SSVs, technical and practical skills (excluding IT skills) were the most commonly cited problem by employers, followed by communication, customer handling and problem-solving skills. Employers recorded skills gaps as being present when they thought members of staff were not fully able to meet the needs of the job. Data from the 2007 NESS show that

15 per cent of all establishments reported skills gaps in their workforce. In addition, employers reported that 6 per cent of their workforce were not fully proficient. As such, the volume of skills gaps far exceeded that of recruitment problems, which accounted for 0.8 per cent of total employment.

Looking at skills gaps by occupation (**Figure 9**), 'sales' and 'elementary' occupations accounted for 36.6 per cent of all skills gaps, much higher than their share of total employment (27.6 per cent). In terms of density, that is the number of skills gaps as a percentage of total employment, these two occupational groups recorded the highest density of skills gaps (8.5 and 7.5 per cent, respectively). Density was lowest among managers and professionals, with only 4.1 per cent of staff in these occupations described as not being fully proficient. It should be noted that the share of employment for each occupation group in NESS differs from that estimated by the LFS. However, the LFS cannot provide estimates of skills gaps, so it is not possible to compare the sources.

Looking at the causes of skills gaps, the main reasons employers gave about why their staff were not fully capable in their job is a lack of experience or recent recruitment to the position. This may suggest that most of these gaps in skills are temporary as, over time, staff become more familiar with the tasks required of them. In around one-fifth of cases where staff were deemed not to be fully proficient, employers credited this partly to their own failure to train and develop these staff properly.

One of the most common ways of dealing with internal skill shortages is for employers to provide training for their staff. According to the LFS, the percentage of

Figure 9

Distribution of skills gaps and employment: by occupation, 2007

Source: Employers Skills Survey

employees receiving job-related training has increased slightly, from 25.0 per cent in the 12 months to March 1998 to 26.6 per cent in the 12 months to March 2008. However, it is worth noting that this final figure is below the peak achieved in the 12 months to March 2003 (**Table 3**). Levels of job-related training vary significantly over both industry and occupation. On an individual level, training is concentrated among those employees who already have the highest level of qualifications. However, there has been an increase from 7.9 per cent in 1998 to 8.4 per cent in 2008 of the percentage of people who hold no qualifications receiving job-related training.

Labour demand and the economic cycle

The link between the demand for labour and the demand for goods and services in the economy is fundamental to understanding the cyclical variations observed in the labour market. There is a strong relationship between growth in GDP and several labour market indicators. For example, the number of jobs and the number of total hours worked, with a one or two-quarter time lag between the two (**Figure 10**). Historically, the cyclical pattern observed in the labour market is closely related to the economic cycle. This is far more obvious before 1993, when the economy was susceptible to greater fluctuations, often referred to as 'boom and bust'. The more stable economic climate up to 2007 has meant the link between the demand for labour and the demand for goods and services in the economy is not as clear.

When demand for goods and services in the economy is strong, firms try to meet this demand by producing more output. To achieve this increase in production, a firm may increase its labour input, either by hours of work (for example, through paid

and unpaid overtime) or by the number of people employed. As such, cyclical variations in the labour market can be attributed to changes in the demand for labour, resulting from the changing demand for goods and services in the economy.

The cyclical pattern in **Figure 10** is hard to distinguish after 1995; however, GDP has gone through a relatively consistent period of continued growth since 1995, and smaller variations in the pattern might therefore be expected. However, the strong downward

movement in GDP from 3.3 per cent in 2007 to 0.3 per cent in 2008 Q3, and recent similar downward movements in total actual hours and workforce jobs suggest that the economic link in the statistical series continues.

Productivity

Labour productivity measures the economy's output in relation to its labour input. High productivity of labour signals efficient production of goods and services and a competitive economy. Changes in labour productivity may result from a number of factors, such as the level of capital investment, the organisational structure of firms and the level of skills in the workforce. Three measures of productivity are produced: output per worker, output per filled job and output per hour worked.

Productivity is generally increasing over time (**Figure 11**). This primarily reflects technological growth, but also other factors such as organisational change, higher human capital through education and increased competition in the economy. The period between 1990 and the three months ending in June 2008 recorded unbroken

Table 3

Job-related training: by highest level of qualifications¹

United Kingdom		Percentages, not seasonally adjusted		
	1998	2003	2008	
Degree or equivalent	39.9	42.4	37.2	
Higher education	38.7	40.9	35.4	
GCE A level or equivalent	24.3	27.3	25.6	
GCSE grade A–C or equivalent	25.6	27.9	24.4	
Other qualifications	17.1	21.9	18.7	
No qualification	7.9	10.2	8.4	
All levels of qualification ²	25.0	29.0	26.6	

Notes:

- 1 Twelve months ending March.
- 2 This includes people who did not answer the qualification question. It does not include people who did not answer the job-related training question.

Source: Labour Force Survey

Figure 10

Output, total hours worked and workforce jobs¹ **Note:**

- 1 Calendar quarters up to three months ending September 2008.

Source: National Accounts; Labour Force Survey; Workforce Jobs

Figure 11

Whole economy output per worker and output per hour¹

United Kingdom

Percentage change, quarter on same quarter a year earlier, seasonally adjusted

Note:

1 Calendar quarters up to three months ending September 2008.

Source: ONS Productivity

positive output per worker. This is five years longer than the last unbroken positive productivity growth period which ended in 1974. Figure 10 also shows that the two periods of negative productivity growth have coincided with periods of negative GDP figures (just before 1981 and just before 1991), reflecting the weakening of demand in the economy.⁴

The 'per worker' and 'per hour' series have followed similar paths over the last ten years. There are occasional differences, such as the higher spike in 2000 in the 'per hour' series. This reflected strong employment growth over the year, but a fall in average hours worked, leading to slower growth in total hours worked.

In 2008 Q3, output per worker and output per filled job reduced at an annual rate of -0.8 per cent and -0.5 per cent, respectively, while output per hour neither increased nor decreased (0 per cent change). This represents a significant decline in productivity and is the first time since 1989 that negative growth has been recorded for output per worker and output per filled job. The slowdown in

output growth that began at the end of 2007 was not reflected in the employment and hours figures. As a consequence of this labour demand being sustained, labour productivity has declined.

Notes

- 1 Articles explaining workforce jobs statistics can be found at www.statistics.gov.uk/statbase/product.asp?vlnk=9765
- 2 A guide to gross domestic product (GDP) can be found at www.statistics.gov.uk/cci/nugget.asp?id=56
- 3 Time series statistics for gross domestic product (GDP) can be found at www.statistics.gov.uk/cci/nscl.asp?id=5900
- 4 Time series workforce jobs, weekly hours of work, redundancies, productivity and unemployment statistics can be found using the time series data link at www.statistics.gov.uk/statbase/product.asp?vlnk=1944

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