

FEATURE

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Regional economic indicators

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with a focus on regional productivity

SUMMARY

This quarter, the regional economic indicators article starts by presenting an overview of the economic activity of UK regions in terms of their gross value added (GVA) and GVA per head and their labour productivity. This is followed by a description of two methodological changes to the calculation of regional productivity. Then headline indicators of regional welfare and of various drivers of regional productivity are presented, followed by labour market data at the end of the article. The indicators cover the nine Government Office regions of England, Northern Ireland, Scotland and Wales. These 12 areas comprise level 1 of the European Nomenclature of Units for Territorial Statistics (NUTS1) for the UK. The term 'region' is used to describe this level of geography for convenience in the rest of this article.

Regional overview

Key figures on a regional basis indicate that:

- in 2006, London and the South East were the highest performing regions in terms of gross value added (GVA) per head, and the only two regions above the UK average. Wales and the North East had the lowest absolute level of GVA per head in 2006, but were among the regions with the highest annual growth rate
- London and the South East had the highest levels of gross disposable household income (GDHI) per head in 2005, at £15,885 and £14,941, respectively, but among the lowest annual percentage growth rates, at 3.2 per cent and 3.6 per cent, respectively. The North East (£11,356), Northern Ireland (£11,564) and Wales (£11,851) had the lowest GDHI per head, and
- the South East had the highest employment rate in the third quarter of 2007, at 78.7 per cent; Northern Ireland had the lowest rate, at 69.9 per cent, compared with the UK employment rate of 74.4 per cent

Focus on regional economic performance and productivity

This section presents a selection of regional economic indicators that provide an overview of the economic activity of UK regions. The productivity indicator has been updated in light of revisions to the regional GVA estimates and methodological changes, which include the switch to

a workplace-based measure of GVA.

Additionally, as of February 2008, two further changes come into effect. Firstly, the GVA per head series is now presented on a workplace basis, rather than the previous residence-based measure. Secondly, the previously smoothed GVA series is replaced by an unsmoothed GVA series for the output measure used in the calculation of all the regional productivity series. The new estimates are presented below, followed by an explanation of these two changes.

Regional performance

Table 1 and **Table 2** represent economic performance in terms of headline workplace-based GVA and GVA per head at current basic prices, respectively, for all UK regions. Due to large upward revisions to the regional GVA estimates and revisions to the population estimates, Tables 1 and 2 differ slightly from those published in earlier publications. It should also be noted that the nominal figures presented do not take account of inflation or regional differences in prices.

The regional breakdown of GVA changed little in 2006. Table 1 shows that London and the South East remained the regions with the largest share of UK GVA (19.2 per cent and 14.9 per cent, respectively) while Northern Ireland (2.4 per cent) and the North East (3.4 per cent) had the smallest.

In Table 1 it is evident that all regions experienced growth in nominal GVA in 2006. Compared with 2005, the growth in nominal GVA in 2006 is considerably higher for every UK region except London,

Table 1

Headline workplace-based gross value added at current basic prices: by NUTS1 region

£ million and percentages

	UK ¹	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland
2000	824,778	28,188	83,781	60,631	52,595	67,872	71,891	157,550	121,938	63,270	31,560	66,074	19,428
2001	868,428	29,450	88,224	64,041	56,037	70,897	75,791	163,853	128,526	67,952	33,370	70,103	20,186
2002	917,416	31,124	93,365	68,273	59,695	74,562	78,762	172,269	136,499	72,001	35,682	74,183	21,002
2003	973,341	32,577	97,239	71,678	64,485	77,750	85,703	185,097	145,074	76,574	37,096	77,696	22,375
2004	1,031,353	35,251	103,511	76,422	67,765	81,781	91,415	196,101	151,777	81,478	39,594	82,443	23,815
2005 ²	1,073,837	36,882	106,556	78,194	70,154	84,612	94,547	207,269	158,563	85,226	40,411	86,292	25,134
2006 ²	1,128,801	38,798	110,437	81,805	74,846	88,663	98,860	216,451	168,475	89,538	42,893	91,355	26,682
Percentage growth ³													
2004	6.0	8.2	6.5	6.6	5.1	5.2	6.7	5.9	4.6	6.4	6.7	6.1	6.4
2005	4.1	4.6	2.9	2.3	3.5	3.5	3.4	5.7	4.5	4.6	2.1	4.7	5.5
2006	5.1	5.2	3.6	4.6	6.7	4.8	4.6	4.4	6.3	5.1	6.1	5.9	6.2
2006 regional breakdown (percentages) ⁴ 100.0		3.4	9.8	7.2	6.6	7.9	8.8	19.2	14.9	7.9	3.8	8.1	2.4

Notes:

1 UK less extra-regio and statistical discrepancy.

2 Provisional.

3 Year-on-year.

4 Regional breakdown is the proportion of each region as a percentage share of total UK GVA (excluding extra-regio).

Source: *Regional Accounts, Office for National Statistics*

Table 2

Headline workplace-based gross value added per head of population at current basic prices: by NUTS1 region

£ per head and percentages

	UK ¹	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland
2000	14,006	11,083	12,368	12,227	12,619	12,880	13,375	21,771	15,260	12,867	10,857	13,051	11,544
2001	14,691	11,594	13,026	12,868	13,375	13,426	14,034	22,377	16,019	13,746	11,466	13,843	11,949
2002	15,465	12,249	13,775	13,650	14,140	14,081	14,498	23,401	16,963	14,477	12,221	14,676	12,379
2003	16,343	12,818	14,299	14,257	15,158	14,637	15,654	25,135	17,939	15,300	12,656	15,363	13,141
2004	17,233	13,866	15,178	15,091	15,791	15,353	16,588	26,539	18,680	16,161	13,438	16,234	13,924
2005 ²	17,826	14,465	15,579	15,310	16,211	15,813	16,996	27,799	19,373	16,755	13,682	16,937	14,575
2006 ²	18,631	15,181	16,115	15,908	17,150	16,521	17,633	28,813	20,452	17,474	14,462	17,854	15,320
Relative to 2006													
UK average	1.00	0.81	0.86	0.85	0.92	0.89	0.95	1.55	1.10	0.94	0.78	0.96	0.82
2006 percentage growth ³		4.9	3.4	3.9	5.8	4.5	3.7	3.6	5.6	4.3	5.7	5.4	5.1

Notes:

1 UK less extra-regio.

2 Provisional.

3 Year-on-year.

Source: *Regional Accounts, Office for National Statistics*

where the growth rate further declined. However, the 2006 growth rates are still below their 2004 levels for ten of the 12 regions. Only the East Midlands and the South East had higher growth rates in 2006 compared with 2004. In 2006, overall UK growth was 5.1 per cent compared with 4.1 per cent in 2005 and 6.0 per cent in 2004. The East Midlands, the South East, Northern Ireland and Wales had the highest annual percentage growth (above 6.0 per cent) in 2006. While Northern Ireland and the North East had the smallest absolute values of GVA, their year-on-year growth in 2006 was higher than the growth of the region that had by far the largest value of GVA (London).

Due to the wide variations in geographical size among the UK regions,

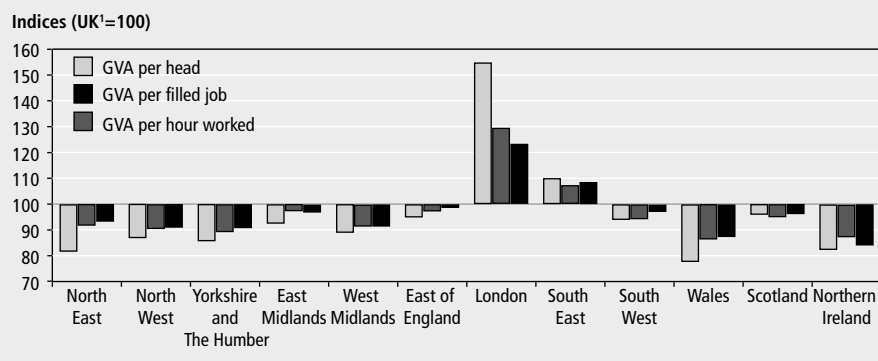
comparisons are more usefully expressed in terms of GVA per head of population, rather than absolute values, as shown in Table 2. In 2006, GVA per head for the UK was £18,631. London was the region with the highest GVA per head in 2006 at £28,813, well above (by 55 per cent) the UK average. GVA per head for the South East was also above the UK average (by 10 per cent), at £20,452 per head. Wales, the North East and Northern Ireland had the lowest GVA per head, at £14,462, £15,181 and £15,320, respectively.

Labour productivity

Labour productivity indicators provide the most effective comparisons of regional economic performance. The GVA per head

measure is now presented on a workplace basis, whereas previously it was residence based. The only three regions, for which estimates will change due to the switch from residence to workplace basis, are London, the South East and the East of England. This is due to these regions experiencing significant levels of net commuting. **Figure 1** shows that, when using GVA per hour worked, there are fewer and smaller differences in regional economic performance than when making comparisons based on other indicators. GVA per hour worked additionally takes into account any variations in labour market structures across the regions, such as the proportions of full-time and part-time workers or job share availability. It is for these reasons that GVA per hour worked

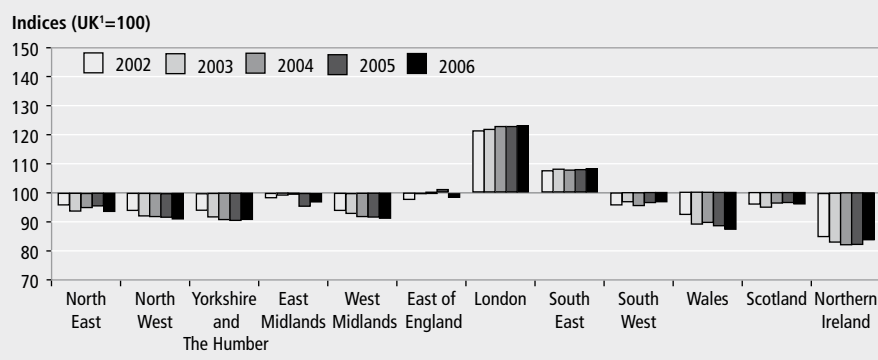
Figure 1
Comparison of regional economic indicators: by NUTS1 region, 2006

**Note:**

1 UK less extra-regio and statistical discrepancy.

Source: Office for National Statistics

Figure 2
GVA per hour worked: by NUTS1 region

**Note:**

1 UK less extra-regio and statistical discrepancy.

Source: Office for National Statistics

is the preferred indicator of productivity.

Figure 2 shows the regional GVA per hour worked productivity indices on a time series basis. The regions that improved their productivity relative to the UK average between 2002 and 2006 were London, the South East, the South West, East of England and Scotland. This chart does suggest that, since 2002, there has been some widening in the regional productivity differences between the highest and lowest performing regions. Productivity in London was the highest in all years and by 2006 was above the UK average by 4.2 percentage points more than it was in 2002. The opposite occurred in Wales, where productivity was among the lowest in 2006.

In terms of the annual change in the GVA per hour worked indicator, six regions experienced declining productivity against the UK average in 2006: the East of England, the North East, Wales, the North West, Scotland and the West Midlands. The largest decline was in the East of England where productivity fell by 2.7 percentage points against the UK average in 2006.

Methodological changes to calculation of regional productivity

There has been increasing interest in analysis of regional productivity in the UK, illustrating the greater emphasis on regional-based policy in recent years. This part of the article summarises the methodologies used to construct the annual estimates of regional productivity published by the Office for National Statistics (ONS), and outlines two methodological changes that come into effect from February 2008, including the impact of these changes on the different measures of regional productivity.

ONS publishes the Productivity First Release on a quarterly basis. Once a year, this includes estimates of annual regional productivity on an output per filled job, per hour worked and per head basis for the UK. These are published at the Nomenclature of Units for Territorial Statistics (NUTS) 1 level (North East, North West, Yorkshire and The Humber, East Midlands, West Midlands, East of England, London, South East and South West, Wales, Scotland and

Northern Ireland).

This article summarises the methodologies that have been used to construct the published estimates of regional productivity (up to the estimates for 2005 published in 2007) and explains changes that are being made now. These changes, which are in response to user needs, have been driven by the need for greater consistency and coherence between the regional productivity estimates published by ONS and will come into effect from February 2008. The two changes being made are:

- switching to a workplace-based measure of GVA for the GVA per head series, and
- switching to the unsmoothed GVA series for the output measure for all the regional productivity series

Switching to using the workplace-based measure of GVA for the GVA per head series

Measures of regional performance are available on an output per filled job, per hour worked and per head basis. The first two series are measures of labour productivity, relating a measure of output to labour input. Output per filled job is a proxy for an output per worker measure, which is the headline measure of productivity in the other ONS productivity statistics. The output per hour worked measure is regarded as conceptually superior to headcount productivity measures as it gives a far better indication of the actual volume of labour input. A measure of hours worked takes into account the differences in working patterns (for example, the composition of full-time and part-time workers in a region's labour force).

The output measure used for the two productivity series is the workplace-based GVA series, published annually in the ONS Regional Accounts. Regional GVA is calculated using the income approach, as these estimates are more readily available than those from either the expenditure or production approach. According to the National Accounts Concepts, Sources and Methods, regional GVA 'adds up all the income earned by resident individuals or corporations in the production of goods and services and is therefore the sum of uses in the generation of income account for the total economy'.

GVA estimates at the NUTS1 level are available on both a workplace and residence basis. Workplace-based GVA allocates the incomes of individuals to the region where

Box 1

Decomposition of revisions

All regional productivity estimates are indexed such that the UK is equal to 100, enabling the regional productivity gap to be measured for any given year. Focusing on the measure of GVA per head, as there are more methodological changes to this measure, this calculation can be expressed as:

$$\text{GVA per head}_i = \left[\frac{\text{GVA}_i / \text{Pop}_i}{\text{GVA}_{\text{UK}} / \text{Pop}_{\text{UK}}} \right]$$

where *i* denotes the NUTS1 level region.

Introducing the concept of time means that this notation can be used to define revisions:

$$\text{Revisions}_{i,y,t} = \left[\frac{\text{GVA}_i / \text{Pop}_i}{\text{GVA}_{\text{UK}} / \text{Pop}_{\text{UK}}} \right]_{y,t} - \left[\frac{\text{GVA}_i / \text{Pop}_i}{\text{GVA}_{\text{UK}} / \text{Pop}_{\text{UK}}} \right]_{y,t-1}$$

In this expression, *y* refers to the year to which the productivity estimate refers, and *t* refers to the year in which the productivity estimate was published. The difference between *t* and *t*-1 is driven by the availability of more complete data being available for year *y*.

This can be re-expressed in an alternative way to allow this final revision to be decomposed into revisions caused by changes to the underlying source data and the methodological change. The underpinning idea to this decomposition is to isolate individually the impact of the revisions to GVA, the revisions to the population estimates and the two methodological changes.

	Publication	Basis of GVA	Headline series
GVA ⁰	Regional Accounts 2006	Residence	Smoothed
GVA ¹	Regional Accounts 2007	Residence	Smoothed
GVA ²	Regional Accounts 2007	Workplace	Smoothed
GVA ³	Regional Accounts 2007	Workplace	Unsmoothed

P⁰ = Population estimates 2006

P¹ = Population estimates 2007

Using the above notation, it is possible to decompose the revision to the headline series into four components. The first two steps of the methodology show the contribution of source data revisions while the last two steps show the contribution of the methodological changes. The contributory effects can be derived since this is an additive model.

Step 1: Contribution of revisions to GVA estimates

$$\left[\frac{\text{GVA}_i^1 / \text{Pop}_i^0}{\text{GVA}_{\text{UK}}^1 / \text{Pop}_{\text{UK}}^0} \right]_{y,t} - \left[\frac{\text{GVA}_i^0 / \text{Pop}_i^0}{\text{GVA}_{\text{UK}}^0 / \text{Pop}_{\text{UK}}^0} \right]_{y,t-1}$$

Step 2: Contribution of revisions to population estimates

$$\left[\frac{\text{GVA}_i^1 / \text{Pop}_i^1}{\text{GVA}_{\text{UK}}^1 / \text{Pop}_{\text{UK}}^1} \right]_{y,t} - \left[\frac{\text{GVA}_i^1 / \text{Pop}_i^0}{\text{GVA}_{\text{UK}}^1 / \text{Pop}_{\text{UK}}^0} \right]_{y,t-1}$$

Step 3: Contribution of switch from residence-based to workplace-based GVA

$$\left[\frac{\text{GVA}_i^2 / \text{Pop}_i^1}{\text{GVA}_{\text{UK}}^2 / \text{Pop}_{\text{UK}}^1} \right]_{y,t} - \left[\frac{\text{GVA}_i^1 / \text{Pop}_i^1}{\text{GVA}_{\text{UK}}^1 / \text{Pop}_{\text{UK}}^1} \right]_{y,t-1}$$

Step 4: Contribution of switch from smoothed to unsmoothed GVA

$$\left[\frac{\text{GVA}_i^3 / \text{Pop}_i^1}{\text{GVA}_{\text{UK}}^3 / \text{Pop}_{\text{UK}}^1} \right]_{y,t} - \left[\frac{\text{GVA}_i^2 / \text{Pop}_i^1}{\text{GVA}_{\text{UK}}^2 / \text{Pop}_{\text{UK}}^1} \right]_{y,t-1}$$

The sum of these four expressions is equal to the final revision, as expressed in the underlying ratios of output to input. The final expression (below) illustrates the differences between the newly published estimates (published in February 2008 for 1996 to 2005) and previously published estimates.

$$\left[\frac{\text{GVA}_i^3 / \text{Pop}_i^1}{\text{GVA}_{\text{UK}}^3 / \text{Pop}_{\text{UK}}^1} \right]_{y,t} - \left[\frac{\text{GVA}_i^0 / \text{Pop}_i^0}{\text{GVA}_{\text{UK}}^0 / \text{Pop}_{\text{UK}}^0} \right]_{y,t-1}$$

they work, whereas residence-based GVA allocates these earnings to the region in which they live. These estimates only differ for three NUTS1 level regions: London, the South East and the East of England.

ONS recommends that the preferred measure of GVA should be on a workplace basis. The GVA per head measure is not traditionally regarded as a productivity measure but rather as an indicator of a region's economic performance. Unlike the labour productivity measures, the GVA per head series previously used the residence-based measure of GVA as the output measure. However, ONS advice is that, conceptually, GVA should be measured on a workplace basis. This is also in line with internationally agreed conventions. Residence-based GVA at the NUTS1 level continues to be made available due to historical and ongoing use for some particular purposes. In the calculation of GVA per head, the denominator is residence based, whereas the labour productivity measures use workplace-based denominators. The residence-based GVA has been used for GVA per head at the regional level to overcome biases that result from using a workplace-based numerator and a residence-based denominator.

Whereas this approach is justifiable if these GVA per head estimates are viewed in isolation, this tends not to be the case. Users compare the different measures available to better understand regional productivity. However, there is an inconsistency between these different series that hampers such comparisons.

For example, differences between GVA per filled job and GVA per hour worked for any region is driven by differences in working patterns; a region may comparatively perform better on an hours worked measure as the average number of hours worked in that region is relatively fewer. The difference between these two series is caused by the measure of labour input. However, the same analysis cannot be used when comparing either of these labour productivity measures with the GVA per head series if a residence-based measure of GVA is used for the output per head series, as there are also differences in the output measure.

Comparisons are not only made between differing productivity series but also across different regional levels. GVA per head estimates are also available at the NUTS2 and 3 level but these are not consistent with the headline NUTS1 level estimates. Residence-based GVA estimates are not produced at these lower regional levels,

meaning that the workplace-based GVA has to be used as the numerator. This means that, for example, it is not possible to decompose the residence-based GVA per head estimate for London into the NUTS2 and 3 levels that comprise London as there is an inconsistency in the source data. Such analyses can be of importance in identifying areas that are performing well at these lower regional levels, and can help explain why such NUTS1 level regions are performing well economically.

From February 2008, in the regional economic indicators articles, the GVA per head series at the NUTS1 level will use workplace-based GVA as the output measure to achieve greater consistency across the different regional productivity estimates, in line with ONS recommendations.

Switching to using the unsmoothed GVA series as the output measure for all regional productivity measures

The headline regional GVA estimates that are published in the regional accounts are calculated using a five-year moving average. These estimates have been used as the output measure for all regional productivity estimates. The reason for presenting the smoothed GVA estimates as the headline series is to overcome the volatility that tends to be seen in the raw underlying estimates, caused by sampling errors. These errors are more pronounced at the regional level than they are at the national level, as the estimates are based on smaller sample sizes.

Although these smoothed GVA estimates remove some of the year-to-year volatility caused by sampling errors and conceptually give a more credible measure of the true economic activities of regions, there is an argument that the unsmoothed series should be used for regional productivity estimation. This is because for productivity purposes, the output estimates are not being used in isolation but are being used with measures of labour input. These latter measures are not being adjusted to account for any possible sampling errors that may be introducing high levels of volatility. Using a smoothed output measure alongside an unsmoothed input measure presents some conceptual issues with regards to interpreting the resultant productivity estimates.

When a data series experiences a high degree of volatility driven by sampling errors, the series is said to be 'noisy'. This means the time series can be thought of consisting of the real data and 'noise'. In terms of data analysis, it is the real data

that are of interest. The effect of smoothing the data is to disperse any extreme values over different time periods. However, this also causes the nature of the series to change as it moves the data (both the real and the noise component) from one period to other periods. As a stand-alone measure, a smoothed GVA series gives a better indication of the underlying trend to movements in output; hence it is presented as the headline measure. However, this is an issue if such a series is used in the construction of a ratio such as productivity. It may mean that the resultant productivity estimates are not the best indication of real regional productivity.

The second methodological change that will come into effect from February 2008 is the use of unsmoothed regional GVA estimates as the measure of output for all regional productivity calculations. This still ensures that there is consistency across all three measures of regional productivity, as well as across the three regional breakdowns for each measure.

Decomposition of revisions

Revisions to productivity estimates are usually caused by revisions to the underlying source data (that is, revisions to GVA and/or the measure of labour input). However, the introduction of a new regional productivity methodology introduces another source of revisions. This section decomposes these final revisions by reason. **Box 1** outlines in detail the methodology being used to decompose the final revisions to the published regional productivity estimates, which reflect the contribution of source data and methodology-driven revisions.

Revisions to the underlying source data will always occur as data referring to year y become more readily available at time period t relative to $t-1$. However, data can also be revised as a result of methodological changes, which is relevant to both input series.

The large upward revisions to the regional GVA estimates (which is why these revisions contributions are positive) was caused by the incorporation of new estimates for own-account software investment in Blue Book 2007 (see Chamberlin, Clayton and Farooqui 2007). These revisions went into the gross trading profits of corporations (GTPOC) component of GVA. Regions with a high GTPOC to GVA ratio will experience the largest software investment-based revisions.

There were also revisions to the population estimates that are used to

Table 3
Decomposition of revisions to GVA per head: by NUTS1 region, 2005

	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Northern Ireland
GVA revisions	1.1	-0.5	-0.3	-1.2	-0.9	-0.9	2.7	0.5	-0.5	0.1	-1.0	-0.9	1.0
Population revisions	0.3	0.1	-0.7	-0.4	0.3	-0.4	1.2	-0.2	-0.3	0.0	0.2	0.0	0.0
Switch to workplace-based GVA	0.0	0.0	0.0	0.0	0.0	-10.6	15.1	-6.6	0.0	0.0	0.0	0.0	0.0
Switch to unsmoothed GVA	0.3	0.0	-0.3	-0.5	-0.1	0.1	0.7	-0.3	0.4	0.0	-0.6	0.0	0.4
Sum	1.7	-0.3	-1.3	-2.1	-0.7	-11.8	19.7	-6.6	-0.4	0.1	-1.4	-0.8	1.5

Source: Office for National Statistics

construct estimates of GVA per head at the regional level. These estimates were revised from 2002 to 2005, reflecting an improved methodology for estimating international migration. These improvements allowed a better regional distribution of international in-migrants by using the Labour Force Survey (LFS) in combination with the International Passenger Survey. These changes help explain why the total population estimates have been revised upwards by almost 30,000. The impact at the regional level varies across the 12 NUTS1 level regions, which is why these contributory effects can differ in magnitude according to region. Details of these methodological changes, as well as the other changes, can be found on the National Statistics website at www.statistics.gov.uk/statbase/product.asp?vlnk=14834

Table 3 shows the magnitude of the revisions to the GVA per head series at the NUTS1 level, along with its contributions. It can be seen from these figures that the relative sizes of these contributions does vary by region, with the final revisions to the GVA per head being predominantly driven by revisions to GVA source data for some regions (North East), while for other regions, the main contributory effect is the switch to using workplace-based GVA

(London).

In absolute terms, the largest upward GVA revisions are observed for London and the South East. This is unsurprising as one would expect relatively large degrees of in-house software to be developed in these regions, based on the industrial structure there. This is reflected in a high GTPOC to GVA ratio for London (those interested in only assessing the impact of software investment are advised to look at estimates only up to 2004 because there were other factors contributing to the GVA revisions for 2005).

It should be noted that the switch from residence- to workplace-based GVA only affects three regions – London, South East and East of England – and for these regions, this change is significantly larger than the revisions due to the other factors such as the improved methodology of measuring own-account software.

Figure 3 illustrates the contributions of the GVA per head revisions in 2005 for London, the South East and the East of England. It is clear to see that the switch to the workplace-based measure of GVA is the largest component. The sign of these contributions is as expected. There is a high level of commuting from the South East and the East of England to London. Under the previous methodology, where

GVA was residence based, the output of these commuters would have been allocated to the regions where they lived (in other words, the South East and the East of England). However, the switch to using a workplace-based measure of GVA means that the output of these commuters is now being allocated to the region in which they work (that is, London). Therefore the contribution to the GVA per head revision for London is upwards, and for the South East and the East of England is downwards.

Figure 4 shows the effect of changes to the regional productivity estimates as measured by output per filled job, and Figure 5 shows the same effect on output per hour worked. The newly published estimates (that is, the estimates produced using the new outlined methodology) are presented as a time series alongside the estimates that would have been published had there been no change to the methodology. For these labour productivity measures, the difference reflects the change from smoothed to unsmoothed GVA estimates. The estimates are presented for London and Wales, which are the regions with the highest and lowest levels of productivity based on both measures.

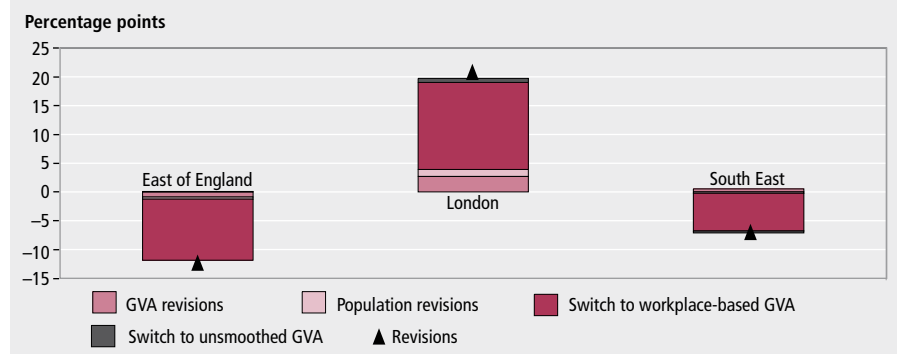
It can be seen from these charts that the impact on both these productivity measures is minimal. The charts show the newly published estimates (1996 to 2006) using the new methodology outlined in this article. These are presented alongside the estimates that would have been published had there been no change.

Switching to the unsmoothed GVA series as the output measure has not led to a significant increase in volatility of either productivity series for either London or Wales. This is also the case for the other NUTS1 regions.

Other regional indicators

The next section presents indicators of regional welfare and of various drivers of regional productivity. These drivers include

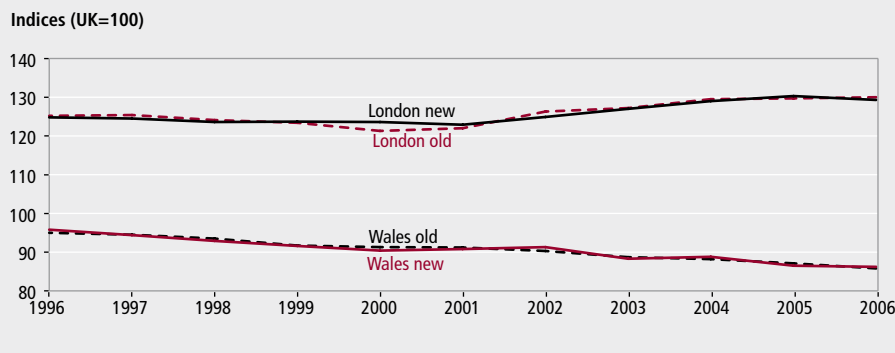
Figure 3
Decomposition of revisions to GVA per head for East of England, London and the South East, 2005



Source: Office for National Statistics

Figure 4

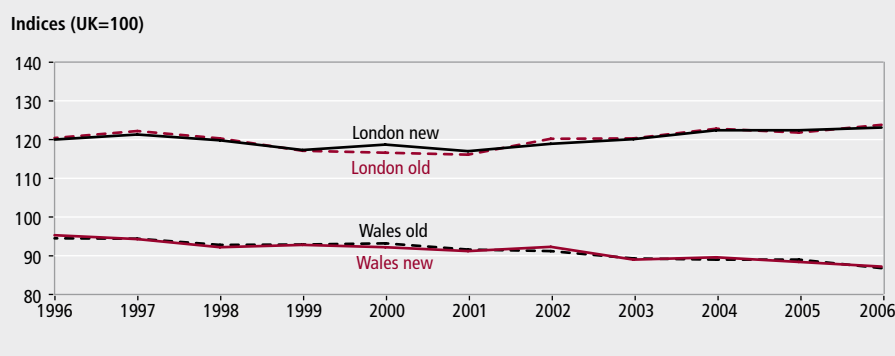
The impact on GVA per filled job of switching to unsmoothed GVA as the output measure



Source: Office for National Statistics

Figure 5

The impact on GVA per hour worked of switching to unsmoothed GVA as the output measure



Source: Office for National Statistics

innovation, enterprise, competition and skills. The last part of this article focuses on developments in regional labour markets.

Welfare

Regional GDHI up to 2005 was published in March 2007. Estimates up to 2006 are expected to be published in March 2008. GDHI estimates are published at current basic prices and so do not take into account inflation effects or regional price

differences. GDHI measured in absolute terms (£ million) does not take into account the population distribution both within and across regions. For more reliable comparisons of regional income levels, the residence-based measure of GDHI per head can be used as an indicator of the welfare of people living in a region. **Table 4** shows these estimates from 2000 to 2005. In 2005, London (£15,885), the South East (£14,941) and the East of England (£14,198)

were the only regions where GDHI per head was greater than the UK average. However, **Table 4** also shows that London and the South East were the regions which had the lowest percentage growth of this indicator between 2000 and 2005 (18.2 and 19.4 per cent, respectively). The three regions that had a level of GDHI lower than £12,000 per head (the North East, Northern Ireland and Wales) had among the largest improvements over this five-year period (at 22.6, 24.7 and 25.6 per cent growth, respectively). Also, the East Midlands saw large growth in its GDHI per head indicator between 2000 and 2005 (at 25.6 per cent).

Gross median weekly earnings estimates were published in November 2007 with some changes to their methodology. Results for 2007 take account of a small number of methodological changes which will improve the quality of results. These include changes to the sample design itself, as well as the introduction of an automatic occupation coding tool, called ACTR. Therefore these results are only comparable with the 2006 results which were also produced using this methodology and are discontinuous with results from previous years. **Table 5** shows that all regions except Northern Ireland experienced increases in gross median weekly earnings in 2007. London maintained the noticeable lead in 2007 as the region with the highest gross median weekly earnings for full-time employees, at £580.9. Northern Ireland had the lowest gross median earnings, at £401.9, followed by the North East at £402.9 and Wales at £404.7.

Figure 6 shows the estimates on gross median weekly pay, by sex, for 2007. Females across all UK regions had lower pay than males. However, in terms of annual percentage growth, pay for females grew stronger than for males in six of the 12 UK regions. The annual growth rate

Table 4

Headline gross disposable household income per head at current basic prices: by NUTS1 region

£ per head and percentages

	United Kingdom ¹	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland
2000	10,906	9,261	9,979	9,964	9,972	9,949	11,681	13,439	12,509	10,806	9,433	10,168	9,270
2001	11,588	9,810	10,560	10,514	10,628	10,547	12,509	14,223	13,320	11,508	10,070	10,800	9,819
2002	11,930	10,147	10,874	10,834	11,008	10,854	12,909	14,495	13,652	11,868	10,456	11,199	10,176
2003	12,409	10,576	11,304	11,306	11,559	11,303	13,376	15,039	14,104	12,367	10,932	11,682	10,668
2004	12,773	10,920	11,673	11,687	11,993	11,670	13,722	15,396	14,424	12,718	11,322	12,047	11,086
2005 ²	13,279	11,356	12,186	12,197	12,522	12,133	14,198	15,885	14,941	13,258	11,851	12,554	11,564
Percentage change													
2000 to 2005	21.8	22.6	22.1	22.4	25.6	22.0	21.5	18.2	19.4	22.7	25.6	23.5	24.7

Notes:

1 UK less extra-regio.

2 Provisional.

Source: Office for National Statistics

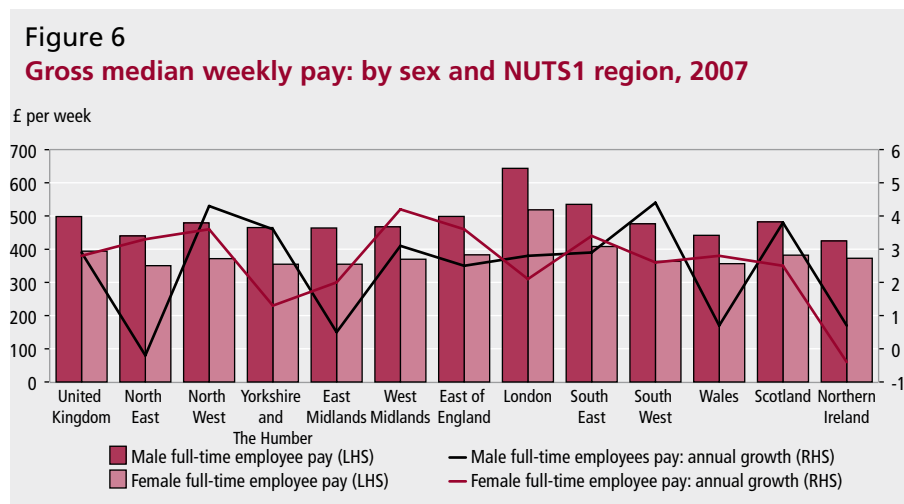
Table 5
Gross median weekly pay of full-time employees: by NUTS1 region

	£ per week												
	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland
2004	419.2	370.2	394.1	389.4	383.6	392.0	419.1	537.4	447.2	392.6	381.3	390.4	372.6
2005	431.2	383.7	406.4	398.8	405.2	402.4	427.7	555.9	450.4	400.0	389.7	408.6	385.2
2006 ¹	443.6	394.8	416.8	409.0	419.1	412.5	440.6	569.2	469.0	413.7	400.0	428.1	402.5
2007 ¹	456.7	402.9	434.2	422.3	420.2	430.0	450.0	580.9	480.7	427.8	404.7	441.5	401.9

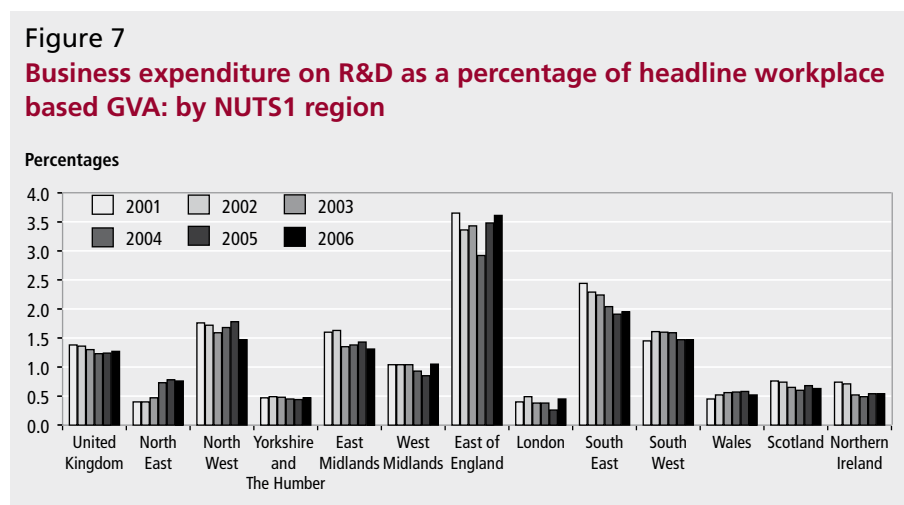
Note:

1 Discontinuity with results from 2005 and 2004 due to methodological changes.

Source: Office for National Statistics



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



Source: Office for National Statistics

of female pay was greatest in the West Midlands.

Drivers of productivity

The following indicators represent the drivers of productivity as identified by HM Treasury and the Department for Business, Enterprise and Regulatory Reform (BERR). Research and Development (R&D) statistics provide an indicator for innovation; VAT statistics on net registration change and business survival rates provide an indicator for enterprise; and UK regional trade in goods provides an indicator for competition.

Innovation

Innovation is a necessary, although not sufficient, condition for economic success and is therefore recognised as an important driver of productivity. Innovation can mean either the invention of new, more valuable products or services, or the development of new processes that increase efficiency. R&D is an input to the innovation process and defined by the Organisation for Economic Co-operation and Development (OECD) as 'creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man,

culture and society and the use of the stock of knowledge to devise new applications'.

Statistics on Business Expenditure on Research and Development consistent with these internationally agreed standards were published in November 2007. New estimates for 2006 were published at the NUTS1 level.

Table 6 presents expenditure on R&D performed in UK businesses by region from 2001 to 2006. The East of England and the South East had the highest business expenditure on R&D in 2006 and were the only regions to have expenditure higher than £3 billion. Northern Ireland, Wales and the North East remained the regions with the lowest R&D expenditure. London had the highest percentage growth in 2006, at 82.2 per cent. The West Midlands and Yorkshire and The Humber were the regions with the next highest growth in 2006, at 29.8 and 12.2 per cent, respectively, despite being ranked low when comparing their absolute expenditure on R&D with other regions. R&D expenditure declined in the North West, Wales, the East Midlands and Scotland. The greatest drop was in the North West, with a decline of 14.0 per cent.

The East of England accounted for 25.1 per cent of total UK expenditure on R&D in 2006, and the South East contributed a further 22.9 per cent. Together these two adjacent regions accounted for around a half of R&D expenditure within the UK. The lowest share of R&D expenditure was in Northern Ireland which consisted of just 1.0 per cent of the UK total.

Analysing R&D as a percentage of GVA is a measure commonly used in international comparisons and can further explain the above trends. Figure 7 shows that the East of England was the region with the highest share of R&D expenditure in terms of GVA (3.6 per cent in 2006) and that this has been the case since 2001.

The large increase in expenditure in London and the West Midlands in 2006 (identified in Table 6) is also reflected when R&D expenditure is analysed as a percentage of GVA, with these regions'

Table 6

Expenditure on research and development performed in UK businesses: by NUTS1 region

£ million and percentages

	United Kingdom ¹	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland
2001	11,978	119	1,554	298	895	735	2,768	649	3,141	988	150	532	150
2002	12,469	124	1,602	336	972	773	2,650	847	3,124	1,157	186	550	149
2003	12,677	152	1,545	345	868	809	2,936	709	3,252	1,229	207	508	116
2004	12,668	257	1,739	343	936	758	2,672	744	3,089	1,296	226	493	116
2005	13,310	289	1,892	344	1,001	719	3,287	538	3,035	1,249	233	586	136
2006	14,306	293	1,627	386	977	933	3,570	980	3,279	1,316	222	579	145
Percentage share of UK total in 2006	100.0	2.0	11.4	2.7	6.8	6.5	25.0	6.9	22.9	9.2	1.6	4.0	1.0
2006 percentage growth ¹	7.5	1.4	-14.0	12.2	-2.4	29.8	8.6	82.2	8.0	5.4	-4.7	-1.2	6.6

Note:

1 Year-on-year.

Source: Office for National Statistics

percentage shares both increasing by 0.2 percentage points, respectively. Despite this increase, London remains the lowest of the regions. This may not be suggestive of low levels of innovation in London but could reflect how regional industry composition affects R&D as an indicator of innovation. London has a large concentration of service industries, but service industries may not be R&D intensive (within the OECD definition) if, for example, they rely heavily on human capital. If innovation occurs in other forms it may not be captured by the R&D measure.

Enterprise

Table 7 shows the net changes in VAT registered businesses for UK regions in the years 1999 to 2006. Estimates for 2006 and revisions to previous years were published in November 2007 by BERR. VAT registrations and deregistrations are the best official guide to the pattern of business start-ups and closures. They are an indicator of the level of entrepreneurship and of the health of the business population. Many factors influence the pattern of business

start-ups. Among these, the most important is economic growth, which encourages new ventures and creates demand for business.

Table 7 shows an overall positive net change in VAT registrations and deregistrations during 2006 at the UK level, meaning that more enterprises became registered than deregistered in that period. This is reflected in all UK regions, with the smallest net increase of 600 seen in Northern Ireland and the highest in London at 7,300.

Overall, four regions (East of England, Northern Ireland, the West Midlands and Wales) saw a smaller net increase in 2006 compared with 2005. However, the UK figure was the highest seen since 1999.

It should be noted that regions with high registration rates tend to also have high deregistration rates. Part of the reason for this is, of course, the sheer difference in the sizes of the regions – regions with larger populations and economies would be expected to have higher absolute numbers of registrations and deregistrations if all other factors were equal. However, this could also be due to the effects of market

sorting (when competitive entrants push the unproductive out of a market) being more significant in some regions than others. This could partly also be due to the industrial mix in each region, with some sectors prone to higher rates of turnover than others.

The regional variations are linked geographically in that five of the six regions with a net change over 3,000 are situated next to each other (London, East of England, East Midlands, South East and South West), with the exception (the North West) interestingly being situated next to the North East – the region with the lowest net change in England.

Business survival rates data on the proportion of businesses that remain registered for VAT three years after their initial registration have not been updated since the last article. These estimates may be updated again around February 2009. Although there has been a general increase in business survival rates since 1995, these rates vary greatly between regions. Northern Ireland had the highest survival rate (78.5 per cent) for businesses registered

Table 7

VAT registrations and deregistrations, net change:¹ by NUTS1 region

Thousands

	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland
1999	30.1	0.5	1.7	1.3	1.7	2.3	3.1	8.6	6.5	2.5	0.1	0.9	0.8
2000	27.7	0.7	1.7	1.4	1.9	2.7	3.2	6.7	5.3	2.0	0.7	1.0	0.6
2001	19.5	0.2	1.4	0.8	1.6	2.1	1.9	3.6	4.0	1.8	0.7	0.5	0.8
2002	22.1	0.6	1.8	1.4	2.3	2.5	3.0	1.7	4.2	2.5	0.3	0.9	1.1
2003	36.9	1.1	3.9	3.3	2.8	2.9	3.6	6.2	5.9	3.3	0.9	1.9	1.1
2004	32.5	0.8	3.3	2.5	2.4	2.7	2.9	5.7	4.7	2.9	1.4	2.0	1.1
2005	38.2	1.2	4.3	2.7	2.8	3.1	4.1	7.2	5.1	3.3	1.4	2.1	1.1
2006	39.1	1.2	4.3	2.8	3.1	2.9	3.5	7.3	6.0	3.7	1.3	2.6	0.6

Note:

1 Net change is the net gain or loss in the stock of registered enterprises each year – equal to registrations less deregistrations.

Source: Department for Business, Enterprise and Regulatory Reform

in 2002 and London had the lowest (66.9 per cent).

Competition

HM Revenue & Customs publishes regional trade statistics on export trade in goods by statistical value, which provide an indicator of competition. Trade in goods by definition excludes intangibles and services. The statistical value of export trade is calculated as the value of the goods plus the cost of movement to the country's border. New estimates for the third quarter of 2007 were published in December 2007, presented here in **Table 8**.

The total value of UK exports for the 12 months ending September 2007 dropped by 13.2 per cent compared with the 12 months ending September 2006. The value of UK exports to the EU decreased by 19.3 per cent over this period. The only UK region that increased was Northern Ireland, where exports rose by 6.9 per cent. The value of UK exports to countries outside the EU decreased by 3.5 per cent. Exports to non-European destinations from eight UK regions decreased in the

year ending September 2007 compared with the year ending September 2006. The only regions that increased were the North East, Yorkshire and The Humber, Northern Ireland and Scotland.

In terms of the latest quarter estimates (2007 quarter 3) compared with the previous quarter, most regions saw a decline in the value of exports to the EU, except for the South West and London, which increased by 4.9 and 4.3 per cent, respectively. However, for comparison, in the third quarter of 2006, the value of exports to the EU decreased for all 12 regions.

The value of exports to countries outside the EU in the third quarter of 2007 showed a similar trend; while exports from eight regions worsened compared with the previous quarter, only four regions, the South West, the East Midlands, the North East and Scotland showed an increase in exports to countries outside the EU. In Yorkshire and The Humber and Wales, the value of exports in the third quarter of 2007 decreased by more than 10 per cent. The South West saw the strongest increase in

the value of exports, with a 10.9 per cent increase.

Figure 8 shows the value of export goods as a percentage of headline workplace-based regional GVA. This basis of interpreting the results is more useful than looking at the absolute numbers because it takes into account the differing sizes of regional economies. In 2006, the East Midlands was the region where exports accounted for the highest percentage of GVA (23.9 per cent), which marks a steady increase since 2004. The region where exports accounted for the smallest percentage of GVA (12.2 per cent) in 2006 was the South West, although the percentage has been rising consistently since 2002. The most significant drop was in Scotland, where exports in 2006 accounted for 6.3 percentage points less in terms of GVA than they did in 2002.

Skills

The skills of workers are important to productivity as they define the capabilities that the labour force can put into the production process. It is useful to be able to analyse skills from two perspectives: the

Table 8
UK regional trade in goods – statistical value of exports: by NUTS1 region

	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	Wales	Scotland	Northern Ireland
£ million													
EU¹ exports													
2005 Q4	32,267	1,369	2,789	1,728	2,416	2,139	2,883	2,642	4,938	1,701	1,306	1,629	746
2006 Q1	42,239	1,363	3,480	2,138	2,877	2,740	3,367	4,344	5,347	1,785	1,482	1,701	782
2006 Q2	46,100	1,449	4,774	2,292	3,248	3,652	3,510	5,576	5,185	1,748	1,517	1,858	814
2006 Q3	31,854	1,285	3,063	1,580	2,483	2,677	2,647	2,181	4,295	1,587	1,368	1,709	804
12 months ending September													
2006	152,460	5,466	14,106	7,738	11,024	11,208	12,407	14,743	19,765	6,821	5,673	6,897	3,146
2006 Q4	31,086	1,398	2,566	1,694	2,152	2,171	2,793	2,164	4,708	1,641	1,307	1,694	835
2007 Q1 ²	31,545	1,312	2,716	1,749	2,285	2,247	3,150	2,213	4,584	1,719	1,433	1,566	842
2007 Q2 ²	30,916	1,274	2,784	1,692	2,014	2,319	2,998	2,026	4,568	1,568	1,381	1,617	843
2007 Q3 ²	29,537	1,183	2,695	1,603	1,979	1,952	2,815	2,113	4,365	1,645	1,233	1,344	805
12 months ending September													
2007	123,084	5,167	10,761	6,738	8,430	8,689	11,756	8,516	18,225	6,573	5,354	6,221	3,325
Non-EU exports													
2005 Q4	25,866	826	2,560	1,404	1,966	2,093	2,434	4,417	4,219	1,179	859	1,663	477
2006 Q1	22,745	703	2,502	1,145	1,788	1,803	1,999	3,846	3,570	939	865	1,613	431
2006 Q2	24,312	701	2,633	1,247	1,830	1,797	2,058	4,147	3,965	1,071	952	1,766	483
2006 Q3	21,910	713	2,301	1,254	1,742	1,534	1,826	3,137	3,655	1,074	981	1,624	460
12 months ending September													
2006	94,833	2,943	9,996	5,050	7,326	7,227	8,317	15,547	15,409	4,263	3,657	6,666	1,851
2006 Q4	23,575	848	2,421	1,313	1,791	1,579	2,022	3,939	3,531	1,113	947	1,495	505
2007 Q1 ²	21,190	807	2,261	1,247	1,622	1,479	1,777	3,484	3,112	917	839	1,683	469
2007 Q2 ²	23,923	1,009	2,484	1,564	1,654	1,607	2,002	3,458	4,004	992	956	1,991	521
2007 Q3 ²	22,856	1,021	2,417	1,402	1,685	1,595	1,843	3,402	3,667	1,100	851	2,014	520
12 months ending September													
2007	91,544	3,685	9,583	5,526	6,752	6,260	7,644	14,283	14,314	4,122	3,593	7,183	2,015

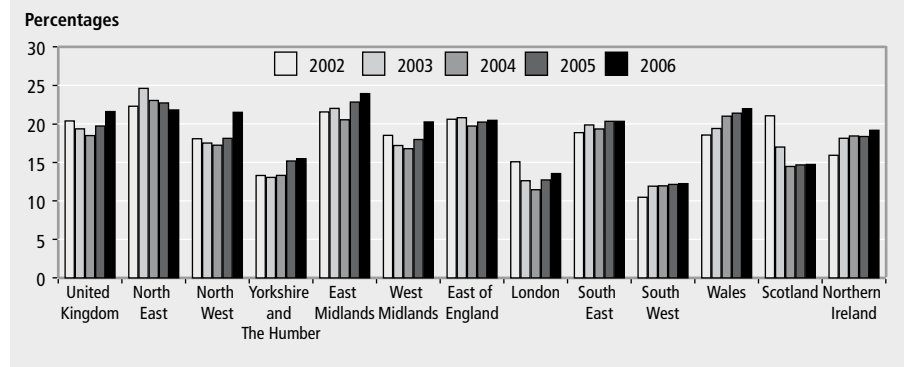
Notes:

1 EU data refer to EU25 up to 2006 Q4 and EU27 from 2007 Q1.

2 Provisional.

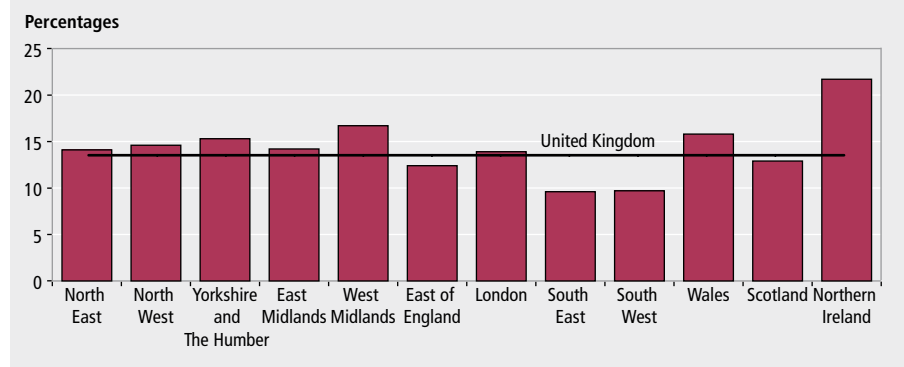
Source: UK Regional Trade in Goods Statistics, HM Revenue & Customs

Figure 8
Value of total export goods as a percentage of headline workplace-based GVA: by NUTS1 region



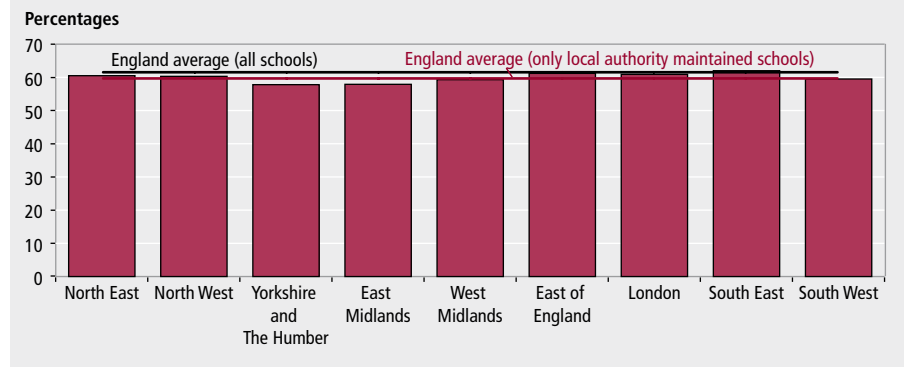
Source: HM Revenue and Customs, Regional Trade Statistics and Office for National Statistics

Figure 9
Working age population with no qualifications: by NUTS1 region, second quarter 2007



Source: Department for Innovation, Universities and Skills; Labour Force Survey, Office for National Statistics

Figure 10
Pupils achieving five or more grades A* to C at GCSE level or equivalent: by NUTS1 region, 2006/07¹



Note:

1 Revised data, including attempts and achievements by these pupils in previous academic years.

Source: Department for Children, Schools and Families

qualifications of the current working age population and the qualifications of young people representing the future capabilities of the labour force.

The latest estimates on the highest qualifications of the working age population (males aged 16 to 64 and females aged 16 to 59) are based on the second quarter 2007 LFS estimates. The characteristics of the local economies will dictate what labour skills are required and thus affect the comparability of these estimates. **Figure 9** shows the percentage of the working age population who have no qualifications, by region, against the UK average. Northern Ireland has the highest proportion with no qualifications (8.2 percentage points above the UK average), whereas the opposite is the case in the South East and the South West (3.9 and 3.8 percentage points lower than the UK average). This does not necessarily mean that these regions have the most qualified working age population, but does indicate where there is a larger proportion of the working population with no qualifications. This may be due to the skill requirements dictated by the regional economies; it could mean that a significant number of those with qualifications have migrated out of these regions; and it may also reflect a higher proportion of those who have migrated into these regions having no qualifications that are recognised in this country.

Data on the percentage of pupils achieving five or more grades A* to C at GCSE level or equivalent in each region in 2006/07 are illustrated in **Figure 10**. Equivalent level qualifications are defined in Notes and Definitions on the ONS Regional Snapshot web pages. The regional breakdown for these data in England is only available for pupils at local authority maintained schools, although information for the devolved administrations is based on all schools. Given this, it is possible to calculate two averages for England as a whole: one based on just local authority maintained schools and one for all schools, as is presented in **Figure 10**. This shows that the average is higher when calculated on all schools, reflecting the higher results obtained by pupils in non-local authority establishments. Within local authority maintained schools in English regions, the South East, the East of England, London, the North East and the North West performed above the England average for these schools, while Yorkshire and The Humber was the lowest performing region in England.

Table 9
Employment¹ rates for persons of working age: by NUTS1 region

		Percentages, seasonally adjusted													
		United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Northern Ireland
2004	Jul-Sep	74.7	70.1	73.5	74.3	75.6	75.1	78.9	69.4	79.0	78.7	75.1	71.3	75.0	67.0
	Oct-Dec	74.9	69.8	74.1	74.5	76.1	74.9	78.8	69.3	79.1	78.7	75.2	72.3	75.1	69.2
2005	Jan-Mar	74.9	70.3	73.3	74.5	76.4	74.7	78.8	69.8	78.9	78.8	75.1	71.7	75.3	68.8
	Apr-Jun	74.7	70.2	73.3	74.3	76.5	74.4	78.7	69.3	79.0	78.8	75.0	71.4	75.0	68.5
	Jul-Sep	74.8	69.7	73.5	74.7	77.2	74.0	78.5	69.5	78.9	78.3	75.0	72.3	75.2	69.9
	Oct-Dec	74.5	70.1	72.9	74.4	77.2	73.4	77.5	69.3	78.8	77.8	74.6	71.8	75.4	68.7
2006	Jan-Mar	74.6	70.9	73.4	74.2	77.0	73.8	77.4	69.9	78.8	78.1	74.9	71.5	75.3	69.4
	Apr-Jun	74.6	71.7	73.3	74.1	76.9	73.8	76.9	69.5	79.0	78.4	74.8	71.5	74.8	70.1
	Jul-Sep	74.5	70.9	73.5	73.5	77.1	73.9	77.0	69.5	78.9	77.8	74.7	72.1	75.2	68.9
	Oct-Dec	74.5	71.2	73.0	73.8	76.5	73.2	77.1	69.7	78.7	78.4	74.6	71.8	76.1	69.5
2007	Jan-Mar	74.3	70.9	72.5	72.7	76.0	72.7	77.4	69.9	78.2	78.0	74.3	71.7	76.6	70.5
	Apr-Jun	74.4	71.2	72.6	73.1	75.8	72.6	77.2	69.7	78.6	78.0	74.4	72.3	77.2	70.5
	Jul-Sep	74.4	72.0	72.2	73.2	75.7	72.9	77.0	70.6	78.7	78.5	74.6	71.2	76.5	69.9

Note:

1 Includes employees, self-employed, participants on government-supported training schemes and unpaid family workers.

Source: Labour Force Survey, Office for National Statistics

The labour market

Table 9 shows the seasonally adjusted employment rate obtained from the LFS. This employment rate represents the number of people of working age in employment, expressed as a proportion of the population.

In quarter three (July to September) of 2007, the UK employment rate was 74.4 per cent, down 0.1 percentage points from a year ago but unchanged from quarter two (April to June) of 2007. Regional rates varied from 78.7 per cent in the South East to 69.9 per cent in Northern Ireland.

Five regions had an increase in the employment rate over the year. Scotland had a rise of 1.3 percentage points and the rate for the North East increased by 1.1 percentage points. Seven regions experienced falls in their employment rates. The East Midlands had an annual fall of 1.4 percentage points and the North West decreased by 1.2 percentage points.

Table 10 shows the unemployment rate (according to the internationally consistent International Labour Organisation (ILO) definition) for persons aged 16 and over from the LFS. The UK rate in the third quarter of 2007 was 5.4 per cent, unchanged from the previous quarter and down 0.2 percentage points on a year earlier. Regionally, the rates ranged from 6.5 per cent in the West Midlands to 3.8 per cent in Northern Ireland.

Over the year, the unemployment rate decreased in six regions. Four of these regions had a fall of 0.5 percentage points or more: London down 1.9 percentage points and Northern Ireland down 1.0 percentage

points. The unemployment rate rose in five regions. The East Midlands had the largest increase of 0.5 percentage points.

Table 11 shows economic inactivity rates for persons of working age from the LFS. The UK rate in the third quarter of 2007 was 21.2 per cent, unchanged from the previous quarter but up 0.2 percentage points on a year earlier. Across the regions, rates varied from 17.5 per cent in the South East to 27.3 per cent in Northern Ireland.

Compared with a year earlier, five regions had a decrease in the inactivity rate and thus a corresponding increase in the working-age activity rate. Scotland had the largest annual fall of 1.3 percentage points. Seven regions had an increase in the economic inactivity rate over the year. The largest annual rise was in the East Midlands with 1.0 percentage points.

Table 12 shows the number of employee jobs, not seasonally adjusted, from the Short-Term Employers Surveys. The number of UK employee jobs was 27.1 million in September 2007, which marked an increase of 213,000 compared with September 2006. In percentage terms, this was a 0.8 per cent increase.

There were annual increases in all regions. The largest percentage rise was in Northern Ireland (1.7 per cent).

Table 13 shows the claimant count rate (referring to people claiming Jobseeker's Allowance benefits as a proportion of the workforce). The UK rate was 2.5 per cent in December 2007, unchanged from November 2007, but 0.4 percentage points down on a year earlier. This national rate masks large variations between regions

and component countries of the UK. In December 2007, the North East had the highest claimant count rate in the UK at 3.8 per cent. The North East was followed by the West Midlands (3.5 per cent), the North West (3.1 per cent) and Yorkshire and The Humber (2.9 per cent). The lowest claimant counts were measured in the South West (1.4 per cent) and the South East (1.5 per cent). The claimant count rate was 2.6 per cent in Scotland and 2.7 per cent in both Northern Ireland and Wales.

Compared with a year earlier, all regions had a lower claimant count rate. The largest decrease was 0.6 percentage points, which occurred in London.

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Table 10
Unemployment rates for persons aged 16 and over: by NUTS1 region

Percentages, seasonally adjusted

	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Northern Ireland	
2004	Jul-Sep	4.7	5.9	4.5	4.6	4.1	5.0	3.6	7.2	3.6	3.3	4.6	4.9	5.3	5.0
	Oct-Dec	4.7	6.4	4.6	4.6	4.2	4.7	3.8	7.2	3.5	3.3	4.6	4.2	5.7	4.6
2005	Jan-Mar	4.7	5.8	4.7	4.4	4.3	4.7	3.8	6.7	3.7	3.6	4.6	4.6	5.5	4.8
	Apr-Jun	4.8	6.8	4.4	4.8	4.2	4.7	3.9	7.2	3.8	3.2	4.7	4.6	5.4	4.9
	Jul-Sep	4.8	6.7	4.5	4.5	4.4	4.7	4.1	6.7	4.0	3.7	4.8	4.6	5.5	4.3
	Oct-Dec	5.1	6.5	4.9	5.4	4.6	5.3	4.5	7.4	4.2	3.9	5.2	4.9	5.2	4.5
2006	Jan-Mar	5.2	6.6	4.9	5.4	5.0	5.2	4.8	7.7	4.5	3.6	5.3	4.8	5.3	4.4
	Apr-Jun	5.5	6.1	5.3	5.7	5.4	5.7	5.0	7.9	4.7	3.7	5.5	5.7	5.4	4.2
	Jul-Sep	5.6	6.9	5.6	6.0	5.3	6.1	5.0	8.0	4.5	3.9	5.7	5.4	5.0	4.7
	Oct-Dec	5.5	6.5	5.3	6.0	5.8	6.5	4.5	7.9	4.3	3.8	5.6	5.2	5.2	4.2
2007	Jan-Mar	5.5	6.8	5.7	6.2	5.5	6.4	4.7	7.3	4.6	3.9	5.7	5.5	4.9	4.2
	Apr-Jun	5.4	6.5	5.8	5.6	5.0	6.8	4.6	7.5	4.2	4.0	5.5	5.5	4.5	3.7
	Jul-Sep	5.4	6.4	6.0	5.5	5.8	6.5	5.2	6.2	4.5	4.1	5.5	5.4	4.9	3.8

Source: Labour Force Survey, Office for National Statistics

Table 11
Economic inactivity rates for persons of working age: by NUTS1 region

Percentages, seasonally adjusted

	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Northern Ireland	
2004	Jul-Sep	21.5	25.4	23.0	22.1	21.1	20.9	18.1	25.1	17.9	18.6	21.2	24.9	20.7	29.4
	Oct-Dec	21.3	25.3	22.3	21.8	20.5	21.3	18.0	25.3	17.9	18.6	21.1	24.5	20.2	27.4
2005	Jan-Mar	21.4	25.3	23.0	22.0	20.2	21.6	18.0	25.0	18.0	18.2	21.2	24.7	20.1	27.6
	Apr-Jun	21.4	24.6	23.2	21.9	20.1	21.8	18.1	25.2	17.8	18.5	21.2	25.1	20.6	27.8
	Jul-Sep	21.3	25.3	22.9	21.6	19.2	22.2	18.0	25.3	17.8	18.6	21.2	24.1	20.3	26.9
	Oct-Dec	21.4	25.0	23.3	21.2	18.9	22.4	18.7	25.1	17.7	18.9	21.2	24.4	20.4	28.0
2006	Jan-Mar	21.1	23.9	22.7	21.5	18.8	22.0	18.6	24.2	17.4	18.9	20.8	24.8	20.4	27.3
	Apr-Jun	21.0	23.5	22.5	21.3	18.6	21.6	18.9	24.4	17.1	18.4	20.7	24.0	20.8	26.7
	Jul-Sep	21.0	23.8	22.1	21.7	18.5	21.2	18.9	24.2	17.3	18.9	20.7	23.7	20.8	27.5
	Oct-Dec	21.0	23.7	22.8	21.3	18.7	21.6	19.1	24.2	17.7	18.4	20.8	24.1	19.7	27.4
2007	Jan-Mar	21.2	23.8	23.0	22.4	19.5	22.2	18.6	24.4	18.0	18.7	21.1	24.0	19.3	26.4
	Apr-Jun	21.2	23.8	22.8	22.5	20.1	21.9	18.9	24.6	17.9	18.6	21.2	23.4	19.1	26.7
	Jul-Sep	21.2	23.1	23.0	22.4	19.5	21.9	18.6	24.7	17.5	18.1	21.0	24.5	19.5	27.3

Source: Labour Force Survey, Office for National Statistics

Table 12
Employee jobs:¹ by NUTS1 region

Thousands, not seasonally adjusted

	United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Northern Ireland
Sep 03 ²	26,179	999	2,948	2,171	1,756	2,308	2,286	3,919	3,600	2,120	22,106	1,117	2,283	673
Sep 04 ²	26,416	1,017	2,988	2,229	1,779	2,298	2,291	3,909	3,613	2,155	22,279	1,152	2,301	684
Sep 05 ²	26,820	1,054	2,991	2,219	1,826	2,331	2,304	3,985	3,680	2,194	22,583	1,169	2,373	695
Sep 06 ²	26,892	1,046	2,991	2,221	1,836	2,364	2,367	3,973	3,646	2,204	22,648	1,180	2,359	705
Dec 06 ²	27,135	1,059	3,012	2,233	1,865	2,378	2,385	4,024	3,672	2,219	22,847	1,191	2,384	714
Mar 07 ²	26,881	1,047	2,986	2,223	1,839	2,358	2,347	3,998	3,631	2,195	22,624	1,182	2,362	713
Jun 07 ²	27,030	1,050	3,002	2,238	1,841	2,371	2,360	4,018	3,657	2,208	22,744	1,192	2,377	717
Sep 07	27,105	1,053	3,002	2,237	1,859	2,376	2,373	4,026	3,664	2,222	22,812	1,196	2,380	717

Notes:

1 Employee jobs figures are of a measure of jobs rather than people. For example, if a person holds two jobs, each job will be counted in the employee jobs total. Employee jobs figures come from quarterly surveys of employers carried out by ONS and administrative sources.

2 Revised.

Source: Employer Surveys

Table 13
Claimant count rates:¹ by NUTS1 region

		Percentages, seasonally adjusted													
		United Kingdom	North East	North West	Yorkshire and The Humber	East Midlands	West Midlands	East of England	London	South East	South West	England	Wales	Scotland	Northern Ireland
2001		3.1	5.6	3.7	3.9	3.1	3.7	2.0	3.3	1.5	2.1	3.0	3.9	3.9	4.9
2002		3.1	5.0	3.5	3.6	2.9	3.5	2.1	3.5	1.6	1.9	2.9	3.5	3.8	4.4
2003		3.0	4.5	3.2	3.3	2.8	3.5	2.1	3.6	1.7	1.9	2.9	3.3	3.7	4.1
2004		2.7	4.0	2.8	2.8	2.5	3.3	2.0	3.5	1.6	1.6	2.6	3.0	3.4	3.6
2005		2.7	3.9	2.9	2.9	2.5	3.4	2.1	3.4	1.6	1.6	2.6	3.0	3.2	3.3
2006	Dec	2.9	4.2	3.4	3.3	2.8	3.9	2.3	3.3	1.8	1.8	2.9	3.0	3.1	3.1
2007	Jan	2.9	4.1	3.3	3.2	2.8	3.9	2.3	3.3	1.7	1.8	2.8	2.9	2.9	3.0
	Feb	2.8	4.2	3.3	3.2	2.8	3.9	2.3	3.2	1.7	1.8	2.8	2.9	3.0	3.0
	Mar	2.8	4.1	3.3	3.2	2.8	3.8	2.3	3.2	1.7	1.7	2.8	2.9	2.9	3.0
	Apr	2.8	4.1	3.2	3.1	2.7	3.7	2.2	3.1	1.7	1.7	2.7	2.9	2.9	2.9
	May	2.7	4.0	3.2	3.1	2.7	3.7	2.2	3.1	1.6	1.6	2.7	2.8	2.8	2.9
	Jun	2.7	4.0	3.1	3.1	2.7	3.7	2.2	3.0	1.6	1.6	2.7	2.8	2.7	2.8
	Jul	2.7	4.0	3.1	3.1	2.7	3.6	2.1	3.0	1.6	1.6	2.6	2.8	2.7	2.7
	Aug	2.6	3.9	3.1	3.0	2.6	3.6	2.1	2.9	1.6	1.5	2.6	2.8	2.7	2.7
	Sep	2.6	3.9	3.1	3.0	2.6	3.6	2.1	2.9	1.5	1.5	2.6	2.8	2.7	2.7
	Oct	2.5	3.9	3.1	2.9	2.6	3.6	2.0	2.8	1.5	1.5	2.5	2.7	2.6	2.7
	Nov	2.5	3.8	3.1	2.9	2.5	3.5	2.0	2.8	1.5	1.5	2.5	2.7	2.6	2.7
	Dec	2.5	3.8	3.1	2.9	2.5	3.5	2.0	2.7	1.5	1.4	2.5	2.7	2.6	2.7

Note:

1 Count of claimants of Jobseeker's Allowance expressed as a percentage of the total workforce – that is, workforce jobs plus claimants.

Source: Labour Force Survey, Office for National Statistics

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