

Article

A Review of Regional and Sub-Regional Productivity Statistics

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1 . Introduction

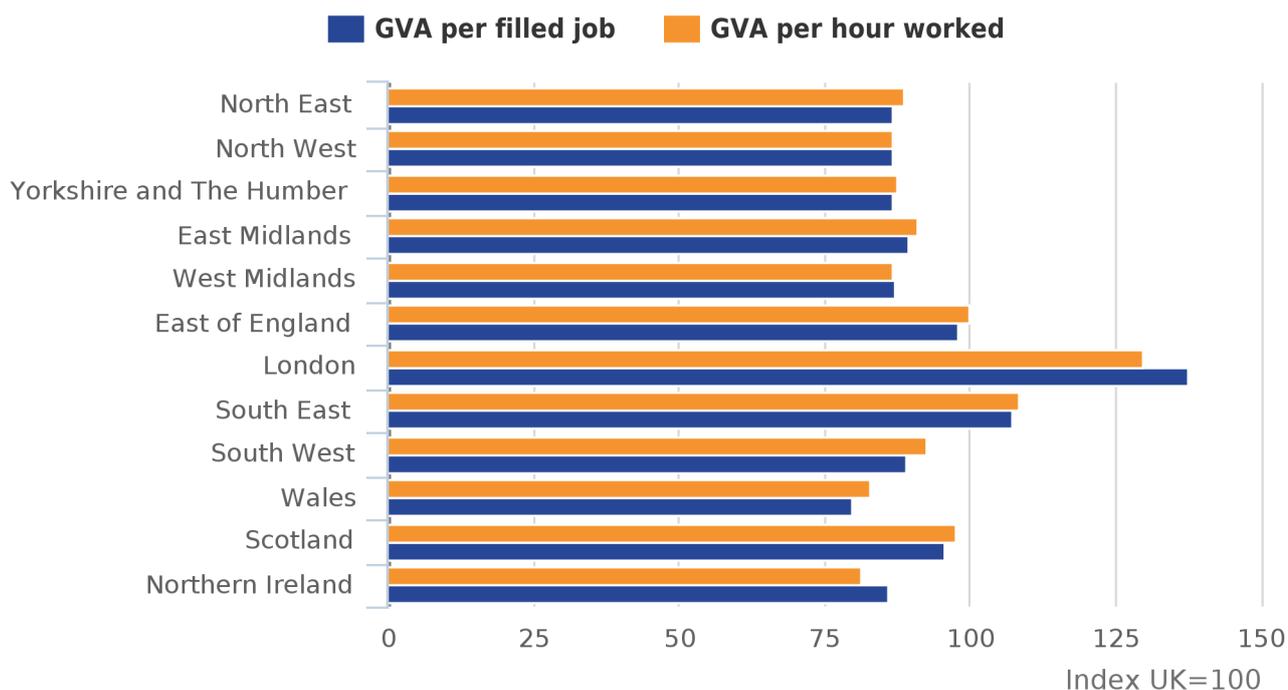
The Office for National Statistics (ONS) publishes annual labour productivity data for [NUTS 1 regions and NUTS 2 and 3 sub-regions](#). In each case, nominal gross value added (GVA) consistent with our [regional GVA release](#) (income approach) is used in the numerator of the productivity calculation. The denominator of the productivity calculation can be expressed as either hours worked or jobs filled calculated on a workplace basis. In interpreting these regional productivity statistics it should be borne in mind that the nominal GVA data used do not take account of price differences across regions.

2 . NUTS 1 results

Figure 1 shows the results for each of the NUTS 1 regions and countries of the UK with the results expressed relative to a UK=100 index. The differences¹ between the results for the GVA per hour worked and GVA per job filled estimates reflect differences in average hours worked across the regions, with average hours per job higher than the UK average in London and Northern Ireland and lower than the UK average in Wales and the South West of England.

Figure 1: Labour productivity by NUTS 1 region or country, 2014

UK



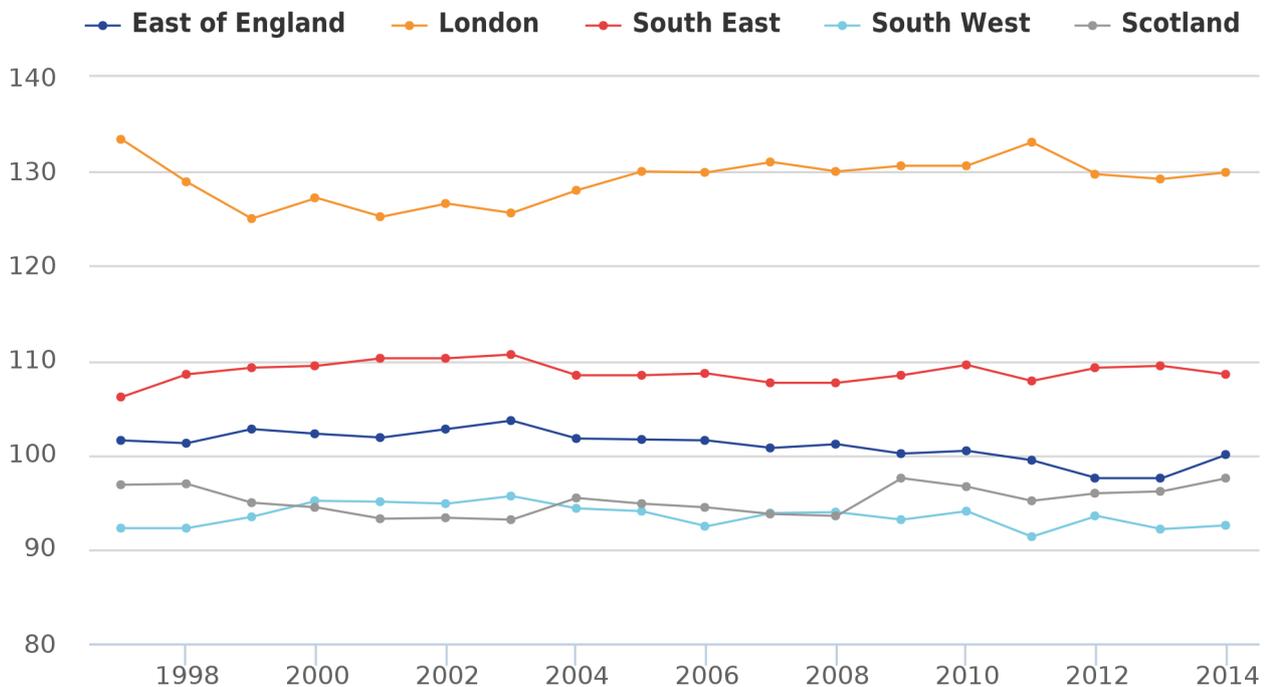
Source: Office for National Statistics

GVA per hour worked was highest in 2014 in London at 30% above the UK average. The only other region with productivity above the UK average was the South East of England with productivity 9% above the UK average. In Scotland, productivity levels in 2014 were 2% below the UK average whilst in Wales and Northern Ireland productivity was 17% and 19% below the UK average respectively. The 5 regions of the north and Midlands of England had productivity levels between 9 to 13% below the UK average.

Figure 2 shows GVA per hour worked from 1997 to 2014 for the regions and countries with the highest levels of productivity. It shows that the relative productivity levels of the different regions and countries have been very stable over time. For example, London remaining around 30% above the UK average, the South East of England slightly below 10% above the UK average etc.

This illustrates that differences in growth levels of economic output over this period have generally not been caused by any major shifts in relative productivity performance. Instead they have largely reflected the differing growth in labour input over the period. From 1997 to 2014, productivity hours in London increased by 38%. Elsewhere, over the same period, growth in productivity jobs ranged from 1% (North East of England) to 13% (South East of England and Northern Ireland). London's relatively strong growth in GVA (it has seen its share of UK GVA increase from 18.9% to 22.5% from 1997 to 2014) has therefore been due to a continued 30% productivity advantage per hour worked combined with a significantly higher increase in total hours worked compared with the rest of the UK.

Figure 2: UK NUTS 1 regions and countries with highest GVA per hour worked, 1997 to 2014



Source: Office for National Statistics

Notes:

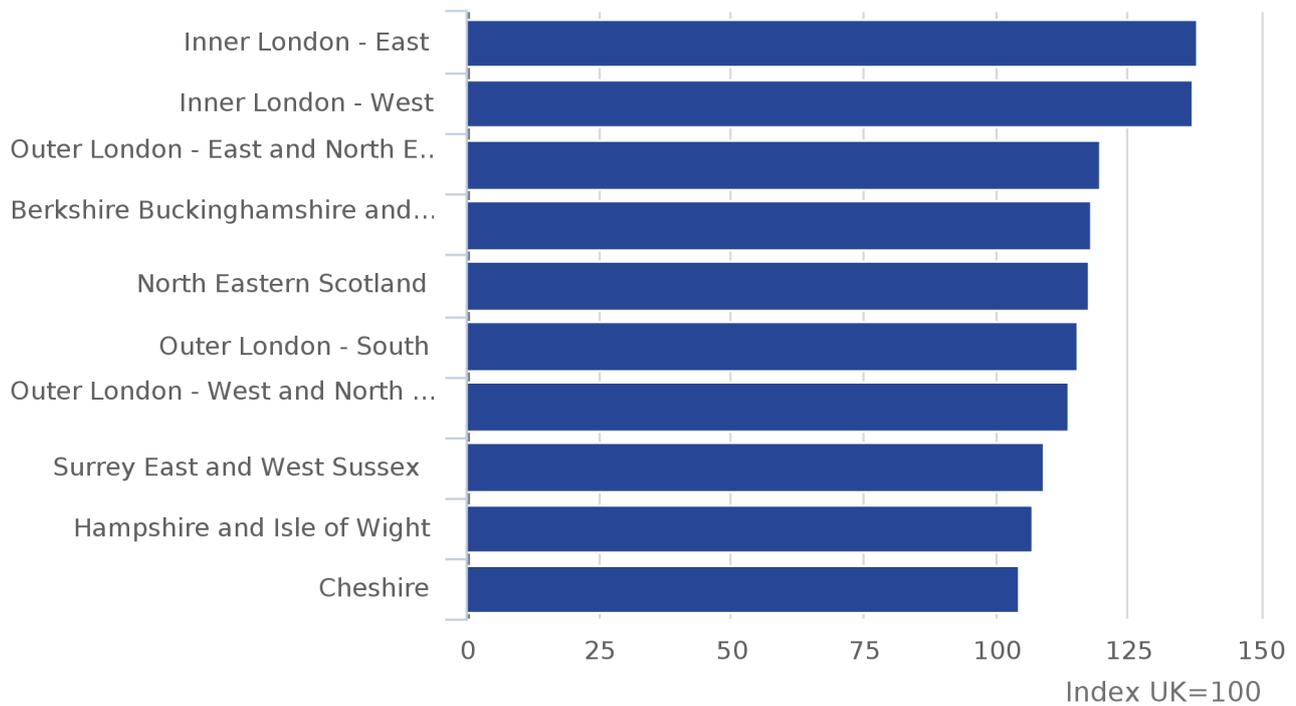
- Note, the preferred measure of labour productivity at the regional level is GVA per hour worked as it takes into consideration regional labour market structures and different working patterns, such as the mix of part-time and full-time workers, home workers and job shares.

3 . NUTS 2 and NUTS 3 results

There are [40 NUTS 2 sub-regions of the UK and 173 NUTS 3 sub-regions](#). We produce annual labour productivity data for each of these regions consistent with the calculations for the NUTS 1 regions and countries. However, unlike the NUTS 1 data, the data for NUTS 2 and 3 sub-regions is smoothed (based on a weighted average of up to 5 years data) to reduce the volatility around single year estimates. For users wishing to see the unsmoothed data this is also published in the [dataset accompanying the sub-regional productivity release](#).

Figure 3 shows the NUTS 2 sub-regions with the highest GVA per hour worked in 2014. Inner London East had the highest productivity level, with a GVA per hour worked 38% higher than the UK average, followed closely by Inner London West. Berkshire, Buckinghamshire and Oxfordshire was the NUTS 2 area outside Greater London with the highest productivity at 18% above the UK average. This was followed by North Eastern Scotland with a slightly smaller productivity level.

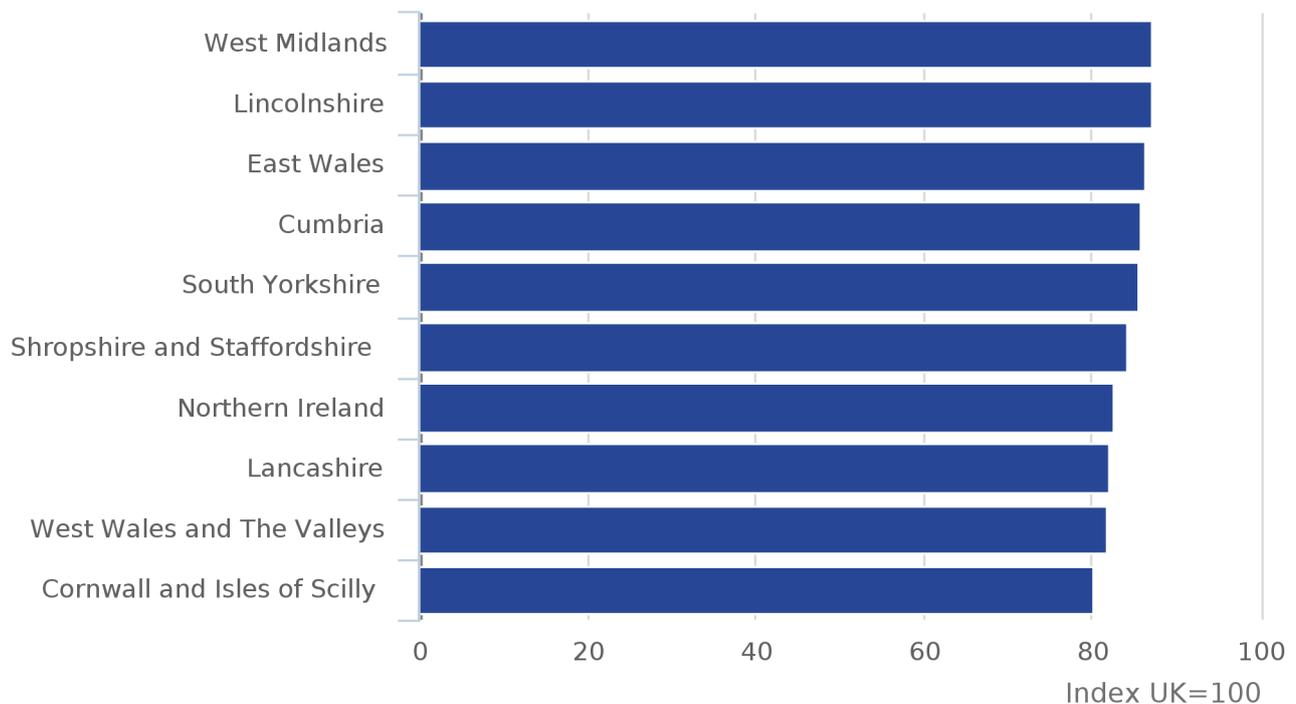
Figure 3: GVA per hour worked - highest ranking UK NUTS 2 sub-regions, 2014



Source: Office for National Statistics

Figure 4 shows the NUTS 2 regions with the lowest labour productivity levels. Each had productivity at least 12% below the UK average. Most of the places with the lowest productivity levels were more rural areas of the country, for example, Cornwall and Isles of Scilly, and West Wales and The Valleys. However, there are also some predominantly urban areas shown in Figure 2 including South Yorkshire and West Midlands.

Figure 4: GVA per hour worked - lowest ranking UK NUTS 2 sub-regions, 2014



Source: Office for National Statistics

In terms of NUTS 3 sub-regions, productivity levels varied from Tower Hamlets in London (home of the Canary Wharf financial district) which had the highest GVA per hour worked at 93% above the UK average in 2014, to Powys in Wales which had the lowest GVA per hour worked at 33% below the UK average. For further information on the NUTS 3 results please see the [sub-regional productivity publication](#) which includes a series of charts illustrating the NUTS 3 data for Scotland, Wales and Northern Ireland as well as for England split between London, the south of England (excluding London), the Midlands and the north of England.

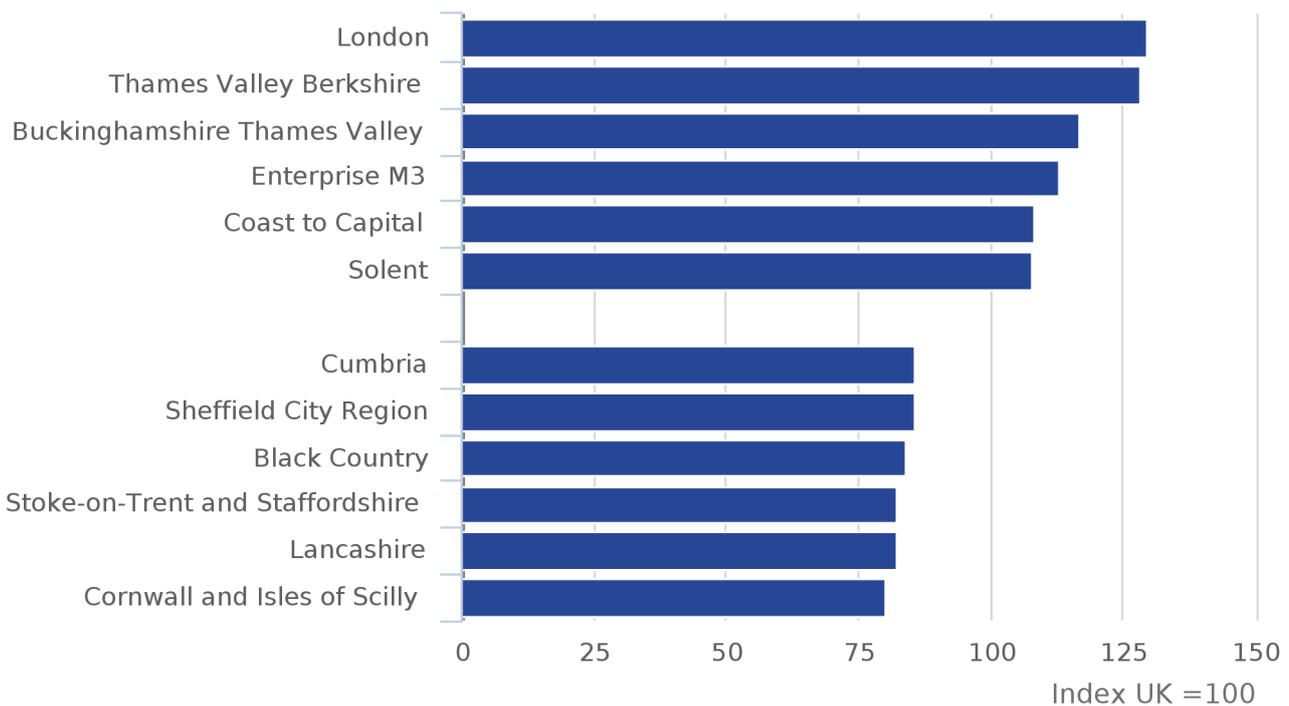
4 . Local Enterprise Partnerships and city regions

Recent years have seen new administrative geographies rise to prominence for policymakers interested in local economic growth. The focus on NUTS 1 regions of England ended and in its place came firstly Local Enterprise Partnerships and more recently city regions as the focal point of local economic policymaking. This section presents the latest labour productivity data for these geographies.

Local Enterprise Partnerships (LEPs) are partnerships in England between local authorities and businesses. They were created in 2011 and their role is to help shape local economic priorities and undertake activities to encourage local economic growth and the creation of jobs. There are 39 LEPs. Every local authority in England belongs to at least one LEP. However, some local authorities belong to more than one LEP.

Figure 5: GVA per hour worked – highest and lowest ranking Local Enterprise Partnerships (LEPs), 2014

England



Source: Office for National Statistics

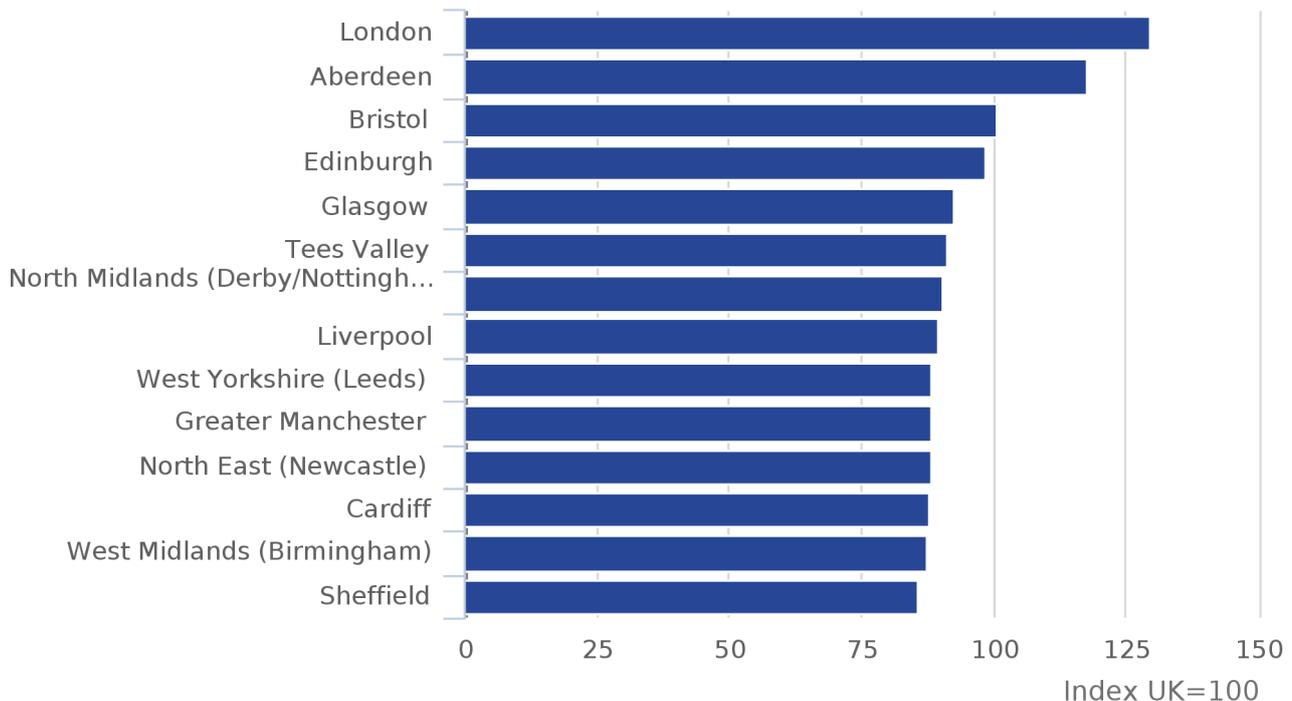
Figure 5 shows the LEPs with the highest and lowest labour productivity in 2014. London was the LEP with the highest productivity, at 30% above the UK average. This was followed by Thames Valley Berkshire, with a slightly smaller productivity level of around 28% above the UK average. The 6 top performing LEPs were all located within the regions of the Greater South East (East of England, South East, and London). In total, there were 12 LEPs with gross value added (GVA) per hour worked above the UK average.

All 6 LEPs with the lowest GVA per hour worked shown in Figure 5 had GVA per hour worked at least 14% below the UK average. Cornwall and Isles of Scilly had the lowest productivity, at 20% below the UK average. This was followed by 2 LEPs in the North West of England, namely Lancashire, and Stoke-on-Trent and Staffordshire.

Figure 6 provides labour productivity for selected UK city regions in 2014. City regions are of particular policy interest at the present time. In England, a number of city region areas have been granted increased devolution powers over the past 18 months, while in Scotland and Wales city deals have been agreed between some city regions and the UK government. Therefore, whilst it should be noted that there is no official city regions geography for the UK, the list of areas included (and the boundaries chosen) in Figure 6 are as close as possible to those used in the recent devolution and city deal agreements. Where no deal has been made to date, the boundaries reflect those in combined authority proposals, or in discussions occurring locally around greater joint working.

Figure 6: GVA per hour worked - city regions , 2014

Great Britain



Source: Office for National Statistics

Greater London was the top performer in 2014, with productivity almost 30% above the UK average. This was followed by the Aberdeen City region with productivity around 17% above average. Bristol and Edinburgh City Regions both had productivity close to the UK average. Elsewhere, the city regions had productivity between 7 and 14% below the UK average. Sheffield City Region had the lowest productivity, with productivity 14% below the UK average, while West Midlands had productivity 13% below the UK average.

5 . Note on GVA per head

Another measure sometimes used when discussing the economic performance of regions and sub-regions is gross value added (GVA) per head. However, there are some important disadvantages to this measure which mean it is not suitable as a productivity indicator. Firstly, by including all the residential population and not just those who are in employment, the denominator includes residents who are not directly contributing to GVA. In other words, GVA per head is impacted by the share of children, pensioners and others not economically active within a sub-region. Secondly, the GVA per head measure is dividing a workplace-based numerator (GVA) by a residence-based denominator (residential population). This means that this measure does not account for people commuting into and out of a region.

This latter point, in particular, means GVA per head is an unreliable indicator of regional economic performance for those areas with high levels of in-commuting or out-commuting. For this reason, it is recommended to use the GVA per hour worked or GVA per job filled indicators when assessing regional economic performance¹. Of these 2 measures, GVA per hour worked is recommended as it takes into consideration regional labour market structures and different working patterns, such as the mix of part-time and full-time workers, home workers and job shares.

Notes:

1. Gross Disposable Household Income (GDHI) per head is a useful compliment to the labour productivity data for assessing regional economic performance and the impact on residents. GVA per hour worked provides evidence on the productivity of a region's workplaces while GDHI per head provides a residence based measure of household incomes.

6 . Future plans

Labour productivity data for NUTS 1 regions has historically been published every December in the Labour productivity bulletin, whilst the experimental sub-regional productivity NUTS 2 and NUTS 3 data has followed a few months later typically in March. The plan is that future releases will see these 2 releases combined into the productivity bulletin scheduled for early January.

Additionally, we are investigating producing NUTS 1 labour productivity by industry estimates. We have received a number of requests to provide this data. Subject to available resources we aim to publish this data later in 2016.

Finally, regional and sub-regional productivity data are currently calculated using gross value added (GVA) produced by the income method. There is currently an ONS programme to also produce regional GVA by the production method. For the moment, GVA(P) estimates remain experimental and GVA(I) continues to be the lead National Statistic and the dataset used in the productivity calculations. In the longer-term (2016 to 2017), however, a regional GVA balancing project will consider the viability of producing a single balanced measure of regional GVA. If it is successful this will allow us to begin producing regional productivity estimates in real terms.