

Statistical bulletin

# Regional Gross Value Added (Income Approach): December 2014

The primary measure of regional GVA (the increase in the value of the economy due to the production of goods and services) at 3 geographical levels (region, sub-region and local area).



Contact: Trevor Fenton trevor.fenton@ons.gsi.gov.uk Release date: 10 December 2014 Next release: To be announced

## **Table of contents**

- 1. Main points
- 2. Summary
- 3. About this release
- 4. Recent methodological changes
- 5. Economic background for 2013
- 6. Regional (NUTS1) GVA estimates
- 7. Sub-regional (NUTS2) GVA estimates
- 8. Local area (NUTS3) GVA estimates
- 9. Domestic use of regional, sub-regional and local GVA estimates
- 10. European Union use of UK sub-regional GVA estimates
- 11. Future work plans
- 12. Background notes

## 1. Main points

- In 2013 Gross Value Added (GVA) per head of population increased in all NUTS1 regions
- In 2013 the North West and Wales had the largest percentage increases in GVA per head, both at 3.4%. Northern Ireland had the smallest percentage increase at 0.9%
- At the regional level, in 2013 London had the highest GVA per head at £40,215, while Wales had the lowest at £16,893
- At the sub-regional level, in 2013 Inner London had the highest GVA per head at £71,162, while West Wales and The Valleys had the lowest at £14,763
- At the local area level, in 2013 Inner London West had the highest GVA per head at £135,888, while the Isle of Anglesey had the lowest at £11,368
- The North East shows the least amount of variation in levels of GVA per head within the region in 2013, with a difference of £7,033 between the highest and lowest local areas. London shows the greatest amount of variation, with a difference of £121,157

## 2. Summary

Gross Value Added (GVA) is a measure of the increase in the value of the economy due to the production of goods and services. It is measured at current basic prices, which include the effect of inflation, excluding taxes (less subsidies) on products (for example, Value Added Tax). GVA plus taxes (less subsidies) on products is equivalent to Gross Domestic Product (GDP).

These regional estimates of GVA are measured using the income approach, which involves adding up the income generated by resident individuals or corporations in the production of goods and services. We also publish experimental <u>estimates of GVA measured using the production approach</u>, with the effect of inflation removed, which are published separately.

Figures are presented for areas according to the Nomenclature of Units for Territorial Statistics (NUTS) (background note 1 has more information).

head $(\pounds)^2$ growth on 2012 (%)index (UK=100)GVA (£m)^2on 2012 (%)total GUnited Kingdom23,3942.6100.01,525,3043.3North East17,3812.874.345,3743.1North West19,9373.485.2141,6203.6Yorkshire and The Humber19,0532.481.4101,7012.8East Midlands19,3172.082.688,8352.7West Midlands19,4282.883.0110,2463.4								
5 North East 17,381 2.8 74.3 45,374 3.1   North West 19,937 3.4 85.2 141,620 3.6   Yorkshire and The Humber 19,053 2.4 81.4 101,701 2.8   East Midlands 19,317 2.0 82.6 88,835 2.7   West Midlands 19,428 2.8 83.0 110,246 3.4	e of UK VA (%) <sup>4</sup>		0	GVA	•	growth on 2012		NUTS1 regions
North West 19,937 3.4 85.2 141,620 3.6   Yorkshire and The Humber 19,053 2.4 81.4 101,701 2.8   East Midlands 19,317 2.0 82.6 88,835 2.7   West Midlands 19,428 2.8 83.0 110,246 3.4	100.0		3.3	,525,304	100.01	2.6	23,394	•
Yorkshire and The Humber19,0532.481.4101,7012.8East Midlands19,3172.082.688,8352.7West Midlands19,4282.883.0110,2463.4	3.0		3.1	45,374	74.3	2.8	17,381	North East
The Humber East Midlands 19,317 2.0 82.6 88,835 2.7   West Midlands 19,428 2.8 83.0 110,246 3.4	9.3	i	3.6	141,620	85.2	3.4	19,937	North West
West Midlands   19,428   2.8   83.0   110,246   3.4	6.7	;	2.8	101,701	81.4	2.4	19,053	
	5.8	,	2.7	88,835	82.6	2.0	19,317	East Midlands
East of England 21.807 2.4 03.6 130.378 3.2	7.2		3.4	110,246	83.0	2.8	19,428	West Midlands
Last of England 21,037 2.4 35.0 150,570 5.2	8.6		3.2	130,378	93.6	2.4	21,897	East of England
London 40,215 2.6 171.9 338,475 4.0	22.2	1	4.0	338,475	171.9	2.6	40,215	London
South East25,8432.0110.5227,2322.8	14.9		2.8	227,232	110.5	2.0	25,843	South East

#### Table 1: NUTS1 regional GVA (1,2), 2013 (3)

South West	21,163	2.5	90.5	113,806	3.2	7.5
England	24,091	2.6	103.01	,297,667	3.3	85.2
Wales	16,893	3.4	72.2	52,070	3.7	3.4
Scotland	21,982	2.6	94.0	117,116	2.9	7.7
Northern Ireland	17,948	0.9	76.7	32,841	1.2	2.2
Extra-Regio	n/a	n/a	n/a	23,107	-2.4	1.5

Source: Office for National Statistics

Notes:

1. GVA at current basic prices on workplace basis (background note 3).

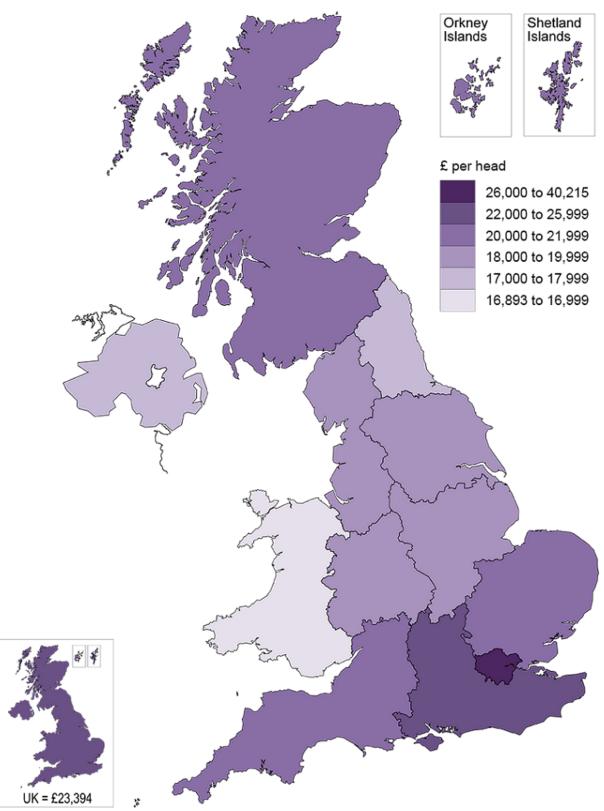
2. Figures may not sum due to rounding in totals; per head (£) figures are rounded to the nearest pound.

3. 2013 estimates are provisional.

4. Shares have been calculated as the regions proportions of the UK total excluding statistical discrepancy.

5. Per head and per head index figures exclude the statistical discrepancy and Extra-Regio: the off-shore contribution to GVA that cannot be assigned to any region (background note 1). These are included in the total GVA figure.

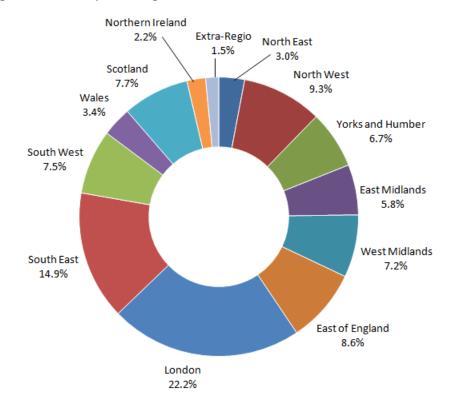
Map 1: Regional GVA per head by NUTS1 area, United Kingdom, 2013



Contains National Statistics data © Crown copyright and database right 2014 Contains Ordnance Survey data © Crown copyright and database right 2014 Source of boundary for Northern Ireland: UNEP (2014): UNEP Environmental Data Explorer. United Nations Environment Programme. http://geodata.grid.unep.ch.

Total GVA estimates in millions of pounds ( $\pounds$ m) are divided by the resident population of a region to give GVA per head in pounds ( $\pounds$ ), which is a useful way of comparing regions of different sizes (background note 4). In 2013 GVA per head was highest in London, at  $\pounds$ 40,215, and lowest in Wales, at  $\pounds$ 16,893.

The highest percentage growth in GVA per head in 2013 was in the North West and in Wales, both at 3.4%. The lowest percentage growth was in Northern Ireland at 0.9%.



#### Figure 1: NUTS1 percentage share of UK GVA, 2013

London had the highest share of UK GVA, with 22.2%, followed by the South East, with 14.9%. The lowest share after Extra-Regio was Northern Ireland, with 2.2%, followed by the North East with 3.0%.

Since the start of the time series in 1997, London has increased its share by 3.4 percentage points. The South East has also increased, by 0.2 percentage points. All other regions decreased, with the West Midlands decreasing the most, by -0.8 percentage points.

### 3. About this release

These regional estimates of Gross Value Added are measured using the income approach, which involves adding up the income generated by resident individuals or corporations in the production of goods and services. It is calculated gross of deductions for consumption of fixed capital, which is the amount of fixed assets used up in the process of production in any period.

The main components of income based Gross Value Added are:

- Compensation of Employees
- Gross Operating Surplus (the sum of self-employment income, gross trading profits and surpluses, nonmarket capital consumption, rental income less holding gains)
- taxes (less subsidies) incurred as a result of engaging in production, independently of the quantity or value of goods and services produced (for example, business rates)

These estimates are consistent with the <u>National Accounts Blue Book 2014</u>. National aggregates for the components of GVA are allocated to regions using the most appropriate regional indicator available. These estimates are produced at current prices, which include the effect of inflation.

GVA estimates in this bulletin are available at three geographical levels, in accordance with the NUTS classification. Changes to NUTS areas came into force on 1 January 2012 (background note 1 has further details).

GVA per head of population is a useful way of comparing regions of different sizes and is an important indicator for both domestic and European policy purposes. It is calculated using the entire population (including the economically inactive).

These regional GVA estimates update <u>those published in July 2014 (a re-release of the December 2013</u> <u>publication</u>) for the period 1997-2012. Additionally, estimates for the year 2013 are released for the first time (background note 6). Industry estimates are provided at t-2 (where t is the current year) for all levels of geography.

## 4. Recent methodological changes

In keeping with the UK National Accounts commitment to meeting the European Commission definition of <u>Gross</u>. <u>National Income</u>, estimates of the value added to the economy of <u>illegal activity relating to drugs and prostitution</u>. (251.9 Kb Pdf) have been included in regional GVA for the first time. Some regional data sources are available that provide information on seizures of illegal drugs by police forces and on crimes related to prostitution. However the inconsistencies in these data sources, over time and between regions of the UK, have meant that reliable estimates of the regional variation in these activities have not been possible at this time. We have therefore allocated the UK total figure for each activity across the regions according to the adult population in each area.

Therefore it is not possible to draw any conclusions about areas of the UK that have higher or lower than average use of illegal drugs or prostitution services from these regional GVA estimates.

The UK, along with all other European Union Member States, has begun a programme of work to introduce the changes to data and methods required by the new European System of Accounts (ESA2010). These changes are many and varied, and will be implemented in the UK National Accounts over a number of years. The UK Regional Accounts aim to implement any relevant changes (those requiring a different treatment to be implemented in order to allocate the national total across regions of the UK) in the first regional publication following their introduction to the National Accounts.

The most notable ESA2010 changes implemented this year are:

- Changes to the treatment of research and development (R&D) (349.1 Kb Pdf) activities carried out by businesses, government and educational institutions for their own use (as distinct from such activities carried out by enterprises classified to the R&D industry itself). The activity, formerly counted as part of intermediate consumption, is now counted as capital formation. For the regional allocation of R&D we have used data from the <u>Business Expenditure on Research and Development (BERD) survey</u>, and its subsidiary surveys for government and higher education R&D (GovERD and HERD). The R&D change has had the greatest impact on regional GVA of all changes implemented this year.
- Changes to the treatment of government expenditure on <u>weapon systems (179 Kb Pdf)</u>. Similarly to R&D, the activity was formerly treated as current spending (intermediate consumption) but is now treated as investment (capital formation). For the regional GVA income measure this investment appears as non-market capital consumption. The regional allocation is done separately for three product categories: weapons and ammunition; ships and boats; and aircraft. All three are allocated according to the regional distribution of armed forces personnel, with ships and aircraft being restricted to only the bases with such equipment.

All other changes made to the UK National Accounts measure of GVA, to satisfy the requirements of Gross National Income or ESA2010, impact upon the regional GVA estimates in the form of different national totals for the various components of income, even where no explicit changes to the regional allocation have been needed. Of these, changes to the treatment of <u>non-profit institutions serving households (NPISH) (109.6 Kb Pdf)</u> have resulted in the greatest impact on the national figures.

We have made use of the <u>Oil and Gas Model</u> developed by Scottish Government statisticians to improve the measurement of onshore oil and gas extraction in regional GVA. The model provides more up-to-date estimates of the output and costs associated with oil and gas extraction and provides a split between offshore and onshore activity. We have used the onshore figures from the Scottish model and have allocated them to regions using data from the Department for Energy and Climate Change (DECC) on the actual production by each onshore oilfield. As before, all offshore activity is assigned to the Extra-Regio category (background note 1) in accordance with European guidance.

## 5. Economic background for 2013

In 2013 the UK saw its economic output increase every quarter. In Q3 (July - September) 2013, GDP exceeded its pre-downturn peak. This was mainly driven by the services component as the output of the construction, production and agriculture sectors were all still below the Q1 (January - March) 2008 level.

Overall, the annual GDP growth in real terms in 2013 was 1.7%. Household final consumption expenditure, general government final consumption expenditure and gross fixed capital formation all contributed positively. Net trade did not contribute to the annual output growth. The reason is that the trade balance worsened slightly due to the value of imports growing marginally more than exports in 2013, compared with 2012.

Total foreign exports of goods from Wales, Scotland and Northern Ireland both to EU and to non-EU countries increased in 2013. Wales presented the highest increase of 11.2%, recovering from a fall of similar magnitude in the previous year. On the other hand, total exports from England declined. This was mainly driven by a reduction of exports to EU countries, which exceeded the limited increase in exports to non-EU countries. The North East region experienced the largest percentage decline in total exports (-10.3%), whereas the West Midlands enjoyed the highest increase relative to the 2012 value (18.4%).

The Bank of England base rate remained unchanged at 0.5% over the year. The annual average inflation rate stayed above the Bank of England's target of 2% although it declined by 0.2 percentage points down from an average of 2.8% in 2012, to 2.6% in 2013.

The total number of workforce jobs in the UK increased by 3.0% from December 2012 to December 2013. Of the countries of the UK, Scotland enjoyed the largest increase (3.2%) while Wales saw only a marginal increase (0.1%). In England, total workforce jobs increased the most in London (5.9%) and only fell in the North East (-1.2%).

In general, unemployment rates fell and employment rates increased from Q4 2012 to Q4 2013. However, the fall in unemployment rates was only statistically significant in the South East and in the East of England, whereas the improvement in employment rates was only statistically significant in the South East and Scotland. The rate of Jobseekers Allowance claimants decreased by around 1% across the UK, with the North East region seeing the largest reduction (-1.7%).

## 6. Regional (NUTS1) GVA estimates

In 2013 GVA per head of population increased in all NUTS1 regions. The largest percentage increases were in:

• North West and Wales, both at 3.4%

• North East and the West Midlands, both at 2.8%.

Northern Ireland had the smallest percentage increase at 0.9%. All other regions had increases of between 2% and 3%.

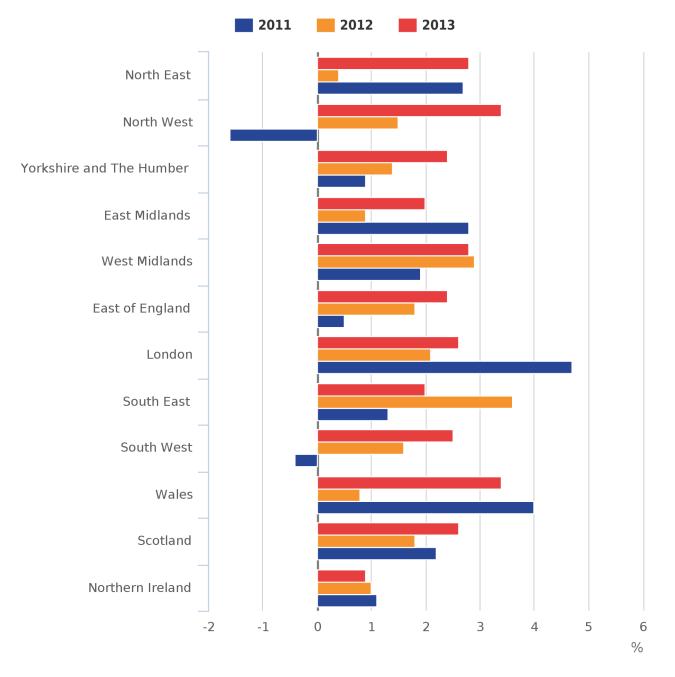


Figure 2: NUTS1 GVA per head growth, 2011, 2012 and 2013

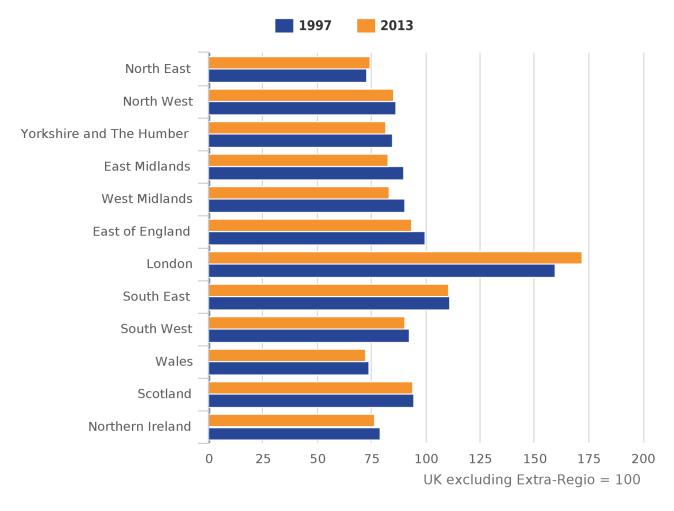
#### Source: Office for National Statistics

When compared with the UK average, in 1997 and 2013, only London and the South East had per head indices above the UK value. During this period only two regions' per head indices increased compared with the UK average:

- London, which increased 12.2 points to 171.9
- North East, which increased 1.2 points to 74.3.

All other regions decreased compared to the UK average. The largest decreases were in:

- West Midlands which fell 7.4 points to 83.0
- East Midlands which fell 7.3 points to 82.6.



#### Figure 3: NUTS1 GVA per head indices, 1997 and 2013

Source: Office for National Statistics

## 7. Sub-regional (NUTS2) GVA estimates

Table 2: NUTS2 top five and bottom	five sub-regions (1) by	GVA (2) per head, 2013 (3)

NUTS2 sub-regions	GVA per head (£) g	GVA per head rowth on 2012 (%)	GVA per head index (UK=100)	Total GVA (£m)	Total GVA growth on 2012 (%)
United Kingdom <sup>4</sup>	23,394	2.6	100.0	1,525,304	3.3
Top five GVA per head					
Inner London	71,162	2.2	304.2	237,356	3.7
North Eastern Scotland	36,242	1.4	154.9	17,573	2.3
Berkshire, Buckinghamshire and Oxfordshire	33,310	2.1	142.4	77,155	3.0
Cheshire	25,477	3.1	108.9	23,154	3.5
Surrey, East and West Sussex	25,088	1.7	107.2	69,895	2.5

Bottom five GVA per head					
South Yorkshire	16,610	2.2	71.0	22,560	2.7
Lincolnshire	16,574	0.9	70.8	12,007	1.7
Tees Valley and Durham	15,901	3.5	68.0	18,780	3.8
Cornwall and Isles of Scilly	15,403	2.4	65.8	8,373	3.1
West Wales and The Valleys	14,763	4.2	63.1	28,678	4.3

Source: Office for National Statistics

Notes:

1. Data for all NUTS2 sub-regions are included in tables 2.1 to 2.3.

2. GVA at current basic prices on workplace basis (background note 3).

3. 2013 estimates are provisional.

4. Per head and per head index figures exclude the statistical discrepancy and Extra-Regio: the off-shore contribution to GVA that cannot be assigned to any region (background note 1). These are included in the total GVA figure.

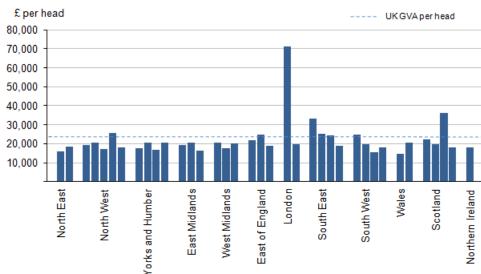
In 2013 GVA per head increased in all of the 37 NUTS2 sub-regions. The largest percentage increases were in:

- West Wales and The Valleys, 4.2%
- Greater Manchester, 4.1%
- West Midlands, 4.0%.

The lowest percentage increases were in Lincolnshire and Northern Ireland, both of which increased by 0.9%.

Eight regions had GVA per head higher than the UK average of £23,394 (excluding Extra-Regio). Three regions had GVA per head of above £30,000:

- Inner London, £71,162
- North Eastern Scotland, £36,242
- Berkshire, Buckinghamshire and Oxfordshire, £33,310.
- West Wales and The Valleys had the lowest GVA per head with £14,763.



#### Figure 4: NUTS2 GVA per head grouped by NUTS1 region, 2013

## 8. Local area (NUTS3) GVA estimates

NUTS3 local areas	GVA per head (£)	GVA per head growth on 2012 (%)	GVA per head index (UK=100)	Total GVA (£m)	Total GVA growth on 2012 (%)
United Kingdom <sup>4</sup>	23,394	2.6	100.0	1,525,304	3.3
Top five GVA per head					
Inner London - West	135,888	1.0	580.9	150,701	1.8
Inner London - East	38,921	5.3	166.4	86,655	7.3
Berkshire	38,918	1.5	166.4	34,187	2.3
Edinburgh, City of	38,134	1.9	163.0	18,590	2.9
Milton Keynes	38,029	3.5	162.6	9,724	4.9
Bottom five GVA per head					
Northumberland	13,481	1.9	57.6	4,257	1.8
Gwent Valleys	13,290	5.0	56.8	4,525	5.1
Wirral	12,482	7.0	53.4	3,998	7.0
E Ayrshire & N Ayrshire mainland	12,257	-0.5	52.4	3,106	-0.9
Isle of Anglesey	11,368	-1.5	48.6	797	-1.4

Source: Office for National Statistics

Notes:

.

1. Data for all NUTS3 local areas are included in tables 3.1 to 3.4.

2. GVA at current basic prices on workplace basis (background note 3).

3. 2013 estimates are provisional.

4. Per head and per head index figures exclude the statistical discrepancy and Extra-Regio: the off-shore contribution to GVA that cannot be assigned to any region (background note 1). These are included in the total GVA figure.

In 2013 GVA per head increased in 126 of the 139 NUTS3 local areas. The largest percentage increases were in:

- East Lothian and Midlothian, 8.5%
- Southampton, 7.8%
- Shetland Islands, 7.6%.

Of the 13 local areas where GVA per head decreased, the largest percentage decreases were in:

- Darlington, -4.7%
- County of Herefordshire, -4.5%.

There were thirty local areas which had GVA per head higher than the UK average of £23,394 (excluding Extra-Regio) in 2013:

- highest was Inner London West, £135,888
- Inner London East, £38,921
- Berkshire, £38,918.

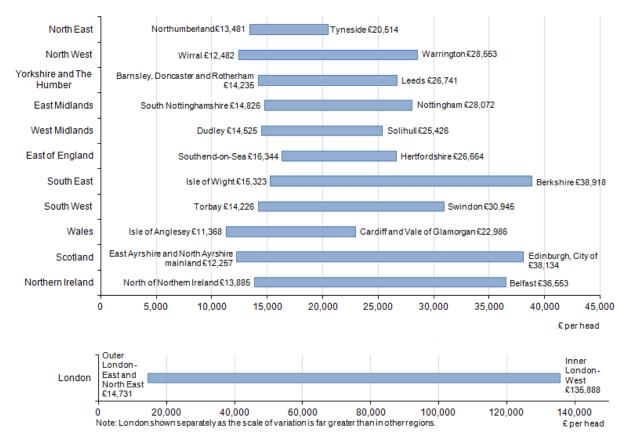
The local areas with the lowest GVA per head were:

- Isle of Anglesey, £11,368
- East Ayrshire and North Ayrshire mainland, £12,257
- Wirral, £12,482.

There is considerable variation in the range of GVA per head within NUTS1 regions of the UK. Variation in 2013 is illustrated in figure 5. The NUTS3 local areas with the highest and lowest GVA per head within a NUTS1 region determine the range of GVA per head within that region.

In 2013, the North East had the least amount of variation between its constituent local areas, from £13,481 in Northumberland, to £20,514 in Tyneside. London had the greatest amount of variation, from £14,731 in Outer London East and North East, to £135,888 in Inner London West.

#### Figure 5: NUTS3 GVA per head variation within NUTS1 regions, 2013



## 9. Domestic use of regional, sub-regional and local GVA estimates

These statistics provide an overview of economic performance at regional and sub-regional level, allowing comparison between the countries and regions of the UK. They provide information about regional economic diversity and the relative importance of different industries to regional economies.

They are used by the UK Government and the Devolved Administrations of Northern Ireland, Scotland and Wales, to formulate and monitor economic policy and allocate resources. These statistics are used in the development of the 'Programme for Government' and the 'Economic Strategy for Northern Ireland'. They are also used in respect of Public Service Agreement (PSA) targets for several Northern Ireland government departments. The Scottish Government uses regional GVA estimates in the production of Supply and Use tables and other related economic statistics, including Quarterly National Accounts Scotland. Regional GVA per head is also used by the Scottish Government to monitor the relative economic performance of countries and regions over time. GVA per head estimates are one of the Welsh Government's 'Programme for Government' outcome indicators for Growth and Jobs.

The Department for Business, Innovation and Skills (BIS) uses regional and sub-regional GVA estimates in monitoring regional economic performance. They are currently used in the BIS publication 'Regional Economic Performance Indicators'. Local authorities and regional observatories use these statistics to facilitate evidence-based policy making and economic intervention, for example assisting Local Enterprise Partnership (LEP) applications and regional growth funding bids. These figures also provide local authorities with a context for their economic strategies and lobbying activities.

These statistics inform the general public about the state of the economy and provide insight into the relative economic positions of local areas and issues, such as the 'North-South divide'. The House of Commons Library produces a standard note about these statistics and they are frequently the subject of parliamentary questions raised by Members of Parliament.

The ONS Regional Accounts team also receives general enquiries relating to these estimates from a diverse range of bodies including the Bank of England, other government departments, local authorities, business analysts, consultancy firms, financial institutions, economists and the media (provincial and national). These statistics also facilitate academic research by individuals and universities within the UK and abroad.

## 10. European Union use of UK sub-regional GVA estimates

The production of regional GVA is a legal requirement under the European System of Accounts. The sub-regional (NUTS2) estimates are used to inform European Union (EU) structural funding decisions. GDP is calculated in the currencies of the Member States and converted initially into Euros and then into an artificial common currency, called the Purchasing Power Standard (PPS). This makes it possible to compare the purchasing power of different national currencies.

The resulting GDP per inhabitant estimates (expressed in terms of PPS) provide a measure of the total economic activity in a region and may be used to monitor and compare the economic development of regions over time.

The purpose of EU structural funding is to redress regional imbalances by supporting the development of regional economies. Convergence funding provided by the European Regional Development Fund (ERDF) and the European Social Fund (ESF) is allocated within the current round of funding (covering the period 2014 to 2020), to promote growth-enhancing conditions and factors leading to economic convergence for the least developed EU Member States and regions.

Where the average GDP per inhabitant of a region (in PPS), over an agreed three year period, falls below 75% of the average for the 28 EU Member States (EU-28), full convergence funding is allocated to promote economic development. A transitional element of the current funding process is allocated to regions with GDP per inhabitant between 75% and 90% of the EU-28 average. Under the current allocation, determined in 2012 on the basis of statistics covering the years 2007-2009, the UK receives full convergence assistance for Cornwall and the Isles of Scilly and West Wales and The Valleys, while a further 11 NUTS2 regions receive transitional support.

The most recent <u>Eurostat GDP per inhabitant estimates</u> published in February 2014 (expressed in PPS) show the EU-28 average for 2011 at 25,100 PPS, up from 24,500 PPS in 2010. Figure 6 illustrates the variation in the range of GDP per inhabitant (expressed in PPS) within the EU Member States, at NUTS2 level, in 2011. Inner London had the highest GDP per inhabitant (PPS) of the NUTS2 regions within the EU, at 80,400 PPS.

There were four UK NUTS2 regions under 75% of the EU average in 2011:

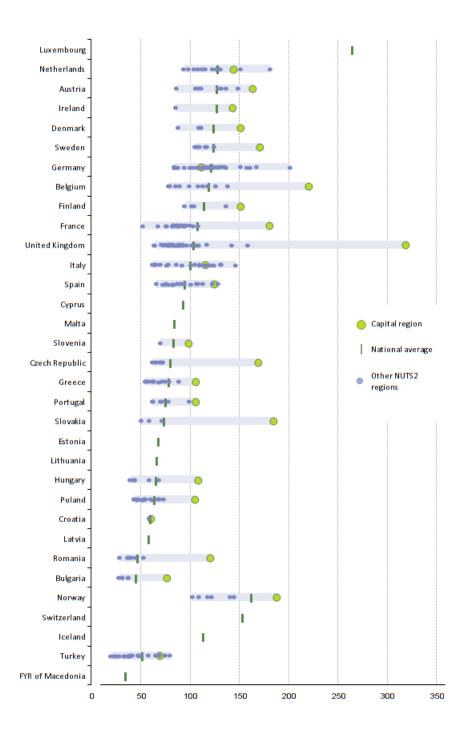
- Lincolnshire, 74%
- Tees Valley and Durham, 71%
- Cornwall and Isles of Scilly, 64%
- West Wales and The Valleys, 64%.

A further 20 UK NUTS2 regions were between 75% and 90% of the EU average.

The allocation of structural funding will be reviewed in 2016 on the basis of statistics for the years 2012 to 2014. This review may affect the funding for 2017 to 2020.

## Figure 6: Regional disparities in gross domestic product (GDP) per inhabitant, in purchasing power standard (PPS), by NUTS 2 regions, 2011 (1)

(% of the EU-28 average, EU-28 = 100)



## 11. Future work plans

- On 18 December 2014 ONS Regional Accounts will again publish experimental estimates of regional real Gross Value Added, compiled using the production approach (GVA(P)). <u>These estimates were published</u> for the first time in December 2013 (166.2 Kb Pdf). They are in constant prices, deflated to remove the effect of inflation. ONS is committed to deliver estimates of real GVA growth rates to Eurostat from 2014, in accordance with EU legislation. GVA(P) will remain experimental and GVA(I) will continue to be the lead National Statistic. In the longer term (2015-16), a regional GVA balancing project will consider the viability of producing a single balanced measure of regional GVA.
- ONS plans to publish estimates of regional Gross Value Added using the income approach (GVA(I)) for 1997 to 2014, in December 2015.
- The publication of Regional Gross Disposable Household Income (GDHI) estimates, for the period 1997 to 2013, is currently planned for spring 2015.

- Changes in NUTS boundaries arising from the 2013 NUTS review will become active in January 2015. These changes will be implemented in the regional GDHI publication scheduled for Spring 2015, and the regional GVA(I) and GVA(P) publications scheduled for December 2015.
- During 2015 the <u>ONS Data Explorer project</u> will improve access to Regional Accounts data on the ONS website and offer greater facility for users to customise datasets.

## 12. Background notes

- The <u>Nomenclature of Units for Territorial Statistics (NUTS)</u> provides a single uniform breakdown for the production of regional statistics for the EU. These regional GVA estimates are compiled at three levels of NUTS geography:
  - NUTS1: Wales, Scotland, Northern Ireland and the nine English regions.
  - NUTS2: 37 areas mainly groups of counties and unitary authorities; can be referred to as subregions.
  - NUTS3: 139 areas principally individual counties and unitary authorities; also known as local areas.
  - Some areas appear at more than one level, for example Northern Ireland appears at NUTS1 and NUTS2 levels.

The NUTS classification was established by Eurostat in the early 1970s as a single, coherent system for dividing up European Union territory in order to produce regional statistics for the EU. Since 2003, any changes to boundaries to account for changes in, for instance, local authority boundaries, have needed to go through a formal process of application to the EU, with any changes being implemented at the end of pre-set periods of enforced stability.

The term Extra-Regio is applied to economic activity that cannot be assigned to any specific region within a country. The contribution to Compensation of Employees (CoE) of UK embassies abroad, UK forces stationed overseas and activities taking place on the continental shelf (North Sea oil and gas extraction) are treated as Extra-Regio in the workplace-based estimates but are allocated to regions in the residence-based estimates. However the contribution of continental shelf activity to gross trading profits is treated as Extra-Regio in both the residence-based and workplace-based estimates of regional GVA.

- 2. These estimates are presented in current basic prices. They do not allow for different regional price levels or changes in prices over time (inflation). The income approach to calculating GVA produces only current price estimates because some income components cannot easily be converted into prices and volume (e. g. gross operating surplus).
- 3. The NUTS1 GVA estimates presented here are on a workplace basis (allocated to the location where the economic activity takes place). Residence-based estimates (where earnings of individuals are allocated to the region in which they live) are also usually produced and published at NUTS1 level. However, this year we have not been able to provide the residence estimates owing to a delay in the availability of data.
- 4. GVA per head is a useful way of comparing regions of different sizes. It is not, however, a measure of regional productivity as the population estimates used to calculate it include the economically inactive population. ONS produces estimates of <u>regional and sub-regional productivity</u> based on the regional GVA data.

#### Quality

- 5. ONS Regional Accounts annually review <u>Quality and Methodology Information (QMI)</u> reports for regional GVA and regional GDHI, detailing methods used to produce these statistics.
- 6. Figures for 2013 are provisional as national estimates have not been through Supply and Use balancing at the time of this publication.
- 7. The statistical discrepancy is the difference between the sum of the national income components and the definitive national estimate of GVA.

8. As with the National Accounts, regional, sub-regional and local GVA estimates are calculated as reliably as possible. There is no easy way to measure the reliability of the estimates but ONS carries out consistency checks on data inputs, applies methods consistently and makes use of local knowledge for England, Scotland, Wales and Northern Ireland through consultation with key users in the Devolved Administrations and other government departments. The estimates are partly based on sample surveys and the quality of the results therefore varies according to sample size. This means that the results for smaller regions may be subject to a greater degree of uncertainty than those for larger regions.

#### Revisions

9. Revisions to NUTS1, NUTS2 and NUTS3 regional GVA estimates in this statistical bulletin cover the period 1997 to 2012.

Very few statistical revisions arise as a result of errors in the popular sense of the word. All estimates, by definition, are subject to statistical error but in this context the word refers to the uncertainty in any process or calculation that uses sampling, estimation or modelling. Most revisions reflect either the adoption of new statistical techniques or the incorporation of new information which allows the statistical error of previous estimates to be reduced. Only rarely are there avoidable errors such as human or system errors and such mistakes are made clear when they are discovered and corrected.

The main reasons for revisions are detailed below:

Statistics are subject to revisions in light of revised National Accounts Blue Book data. In Blue Book 2014, the totals for national GVA by industry were revised as far back as 1997 and included methodological changes to meet the European Commission definition of Gross National Income and the new European System of Accounts (ESA2010). These changes led to larger than usual revisions in the regional estimates, which are constrained to sum to the national figures. More information about these changes can be found in the 'Recent Methodological Changes' section of this bulletin.

Final estimates for 2012 became available from various data providers. Information is delivered by suppliers in accordance with the Standard Industrial Classification of All Economic Activities (UK SIC 2007).

Revisions to GVA estimates for 2011 and 2012 are shown in table 4.

Region	2011 2012
UK	5.9 6.9
North East	6.2 5.1
North West	4.8 4.6
Yorkshire and The Humber	5.0 6.0
East Midlands	6.8 8.5
West Midlands	6.0 8.4
East of England	7.7 8.8
London	3.8 5.3
South East	7.9 9.1
South West	7.3 8.6
Wales	6.9 6.1
Scotland	5.3 7.0
Northern Ireland	10.0 10.3
Extra-Regio	4.6 -2.0

#### Table 4: NUTS1: percentage revisions to workplace-based GVA in 2011 and 2012

Source: Office for National Statistics

- National Statistics are produced to high professional standards set out in the <u>Code of Practice for Official</u> <u>Statistics</u>. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.
- 11. Follow the Office for National Statistics on <u>Twitter</u> or <u>Facebook</u>.
- 12. Details of the policy governing the release of new data are available by visiting <u>www.statisticsauthority.gov.</u> <u>uk/assessment/code-of-practice/index.html</u> or from the Media Relations Office email: <u>media.relations@ons.</u> <u>gsi.gov.uk</u>

These National Statistics are produced to high professional standards and released according to the arrangements approved by the UK Statistics Authority.