

# REGIONAL INEQUALITY IN PRODUCTIVITY IN THE UK: A CLOSER LOOK

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Monique Ebell

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National Institute of Economic and Social Research

2 Dean Trench St

London SW1P 3HE

T: +44 (0)20 7222 7665

E: [enquiries@niesr.ac.uk](mailto:enquiries@niesr.ac.uk)

[niesr.ac.uk](http://niesr.ac.uk)

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# Regional Inequality in Productivity in the UK: A Closer Look

Monique Ebell

## *Key points*

- Using the headline measure of gross value added (GVA) per head, productivity in London is 72% higher than the national average, and is twice as high as in seven of the eleven other regions.
- Measuring GVA per employed worker rather than per inhabitant, however, productivity in London is only 37% higher than the national average. The difference between GVA per head and per worker comes from workers commuting and from some regions having a larger share of employed working age people than others.
- There is also a substantial amount of inequality *within* regions. Every UK region except for Wales and the North East of England has at least one local area with productivity above the national average. For example, Belfast has GVA per head that is 38% higher than the UK average, and which is 2.4 times as large as the lowest productivity local area in Northern Ireland (North of Northern Ireland).
- Breaking down regional productivity into wages and profits, we find that wages (measured as employee compensation per employee) are more evenly distributed across regions than profits.
- Regional differences in GVA per employed worker have remained roughly steady since 2005.
- Since 2010, regional wage inequality has been decreasing somewhat. It is nominal wages at workplaces in London which have been stagnating, while wages outside of London have shown modest growth in nominal terms.
- In contrast, the distribution of profits across UK regions has become more unequal. This is mainly due to rising regional inequality in rental incomes, driven by higher rates of rental income growth in London than in other regions.

## *Contact details*

Monique Ebell (m.ebell@niesr.ac.uk), National Institute of Economic and Social Research, 2 Dean Trench Street, London SW1P 3HE



Across UK regions, large and persistent inequalities have been cited as a key issue both in the vote to leave the European Union and in the snap election, and have come to be viewed as an urgent policy priority. One of the key narratives around recent shifts in voter sentiment has been that rising levels of regional inequality have been leaving entire swathes of the country behind, while London and the Southeast motor ahead. This briefing examines some of the evidence for this narrative.

We focus on regional inequality in the most important measures of economic performance, productivity, measured as Gross Value Added (GVA), and in its components. We examine both the recent levels of regional inequality in productivity in the UK, and how they have developed over time, with a particular focus on the period since 2010, when the Conservatives entered government for the first time since leaving office in 1997.

### Which Measure of Productivity?

Productivity is a measure of efficiency. It refers to how much output can be produced with a given set of inputs. The headline measure for regional productivity is GVA per head – how much Gross Value Added is produced per inhabitant of a region.<sup>1</sup> On this measure, there is a stark divide between the productivity of London, which has GVA per head which is 72% higher than the national average, and much of the rest of the country with GVA per head which is half that of London or less, including the Wales, Northern Ireland, the North East, Yorkshire and the Humber, the East Midlands, the West Midlands and the North West [Table 1, middle column]. In the middle, the South East, East of England, Scotland and the South West have GVA per head which is between half and two-thirds as large as London’s. On this measure, regional inequality in productivity has been steadily rising since 2005 [Chart 1].

**Table 1: GVA per head and per employed worker in 2015, NUTS1 regions**

Region	GVA per Head [UK=100]	GVA per Employed Worker [UK=100]
North East	74.7	82.7
North West	86.3	88.7
Yorkshire and The Humber	80.3	83.8
East Midlands	82.6	86.5
West Midlands	82.1	86.8
East of England	94.6	98.8
London	172.1	137.3
South East	109.8	109.3
South West	90.8	92.7
Wales	71.0	78.1
Scotland	93.4	91.6
Northern Ireland	73.3	n.a.

**Sources:** Regional GVA per head and levels: ONS (2016), Regional GVA Reference Tables  
Number of employed workers per region: ONS (2017), Business Register Employment Survey. The BRES does not cover Northern Ireland.

<sup>1</sup> We refer to UK NUTS1 regions, which are the former Government Office Regions in England, plus Northern Ireland, Scotland and Wales.

It would be misleading, however, to characterise UK regional inequality as only a story about London and the Southeast versus the rest of the country. There is a substantial amount of inequality *within* regions. Every region except for Wales and the Northeast has at least one local area with productivity above the national average (Table 2).<sup>2</sup> For example, Belfast has GVA per head that is 38% higher than the UK average, and which is 2.4 times as large as the lowest productivity area in Northern Ireland (North of Northern Ireland).<sup>3</sup>

However, GVA is a measure of the productivity of workplaces, not of places of residence. It seems to be more sensible to compare the output produced by a region's employed workers rather than its inhabitants, especially if there are substantial commuting flows. For example, if more people work in London than live there, then GVA per head will overestimate how productive workplaces in London are – and might underestimate how productive workplaces in its commuter belt are. Indeed, when we re-calculate UK regional productivity levels as GVA per employed worker, we find that London's productivity declines compared to that of the Southeast and other regions [Table 1, right hand column].

**Table 2: GVA per head for NUTS3 regions with GVA per head greater than UK average**

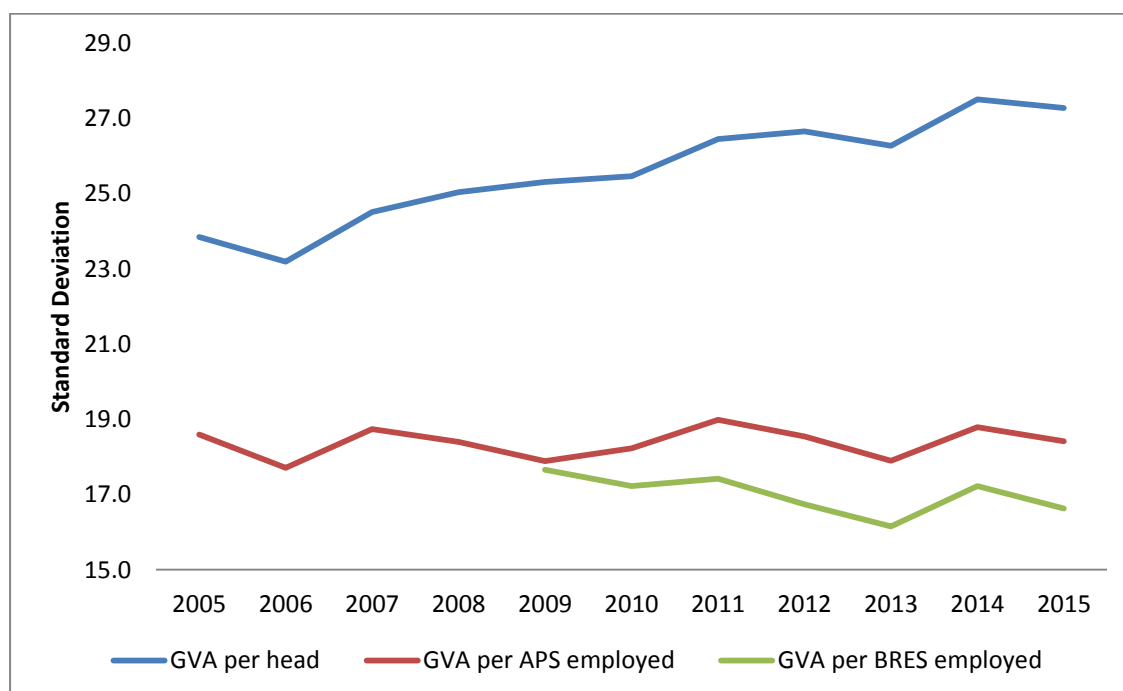
<b>Region (NUTS3)</b>	<b>GVA per head [UK = 100]</b>
Edinburgh, City of	146
Aberdeen City and Aberdeenshire	145
Belfast	138
Cheshire East	128
Glasgow City	127
Manchester	127
Solihull	125
Warrington	124
Bristol, City of	122
Swindon	121
Cambridgeshire CC	115
Hertfordshire	115
Greater Manchester South West	110
Peterborough	109
Nottingham	109
Leeds	108
Derby	108
Warwickshire	108
Shetland Islands	107
Cheshire West and Chester	106
Bath and NE Somerset, N	106
Somerset and S Gloucestershire	106
Mid Lancashire	105
Gloucestershire	102

**Source:** ONS (2016), Regional GVA Reference Tables

<sup>2</sup> Local areas refer to NUTS3 regions. For example, London is divided into 21 NUTS3 regions, while Northern Ireland has 5 NUTS3 regions.

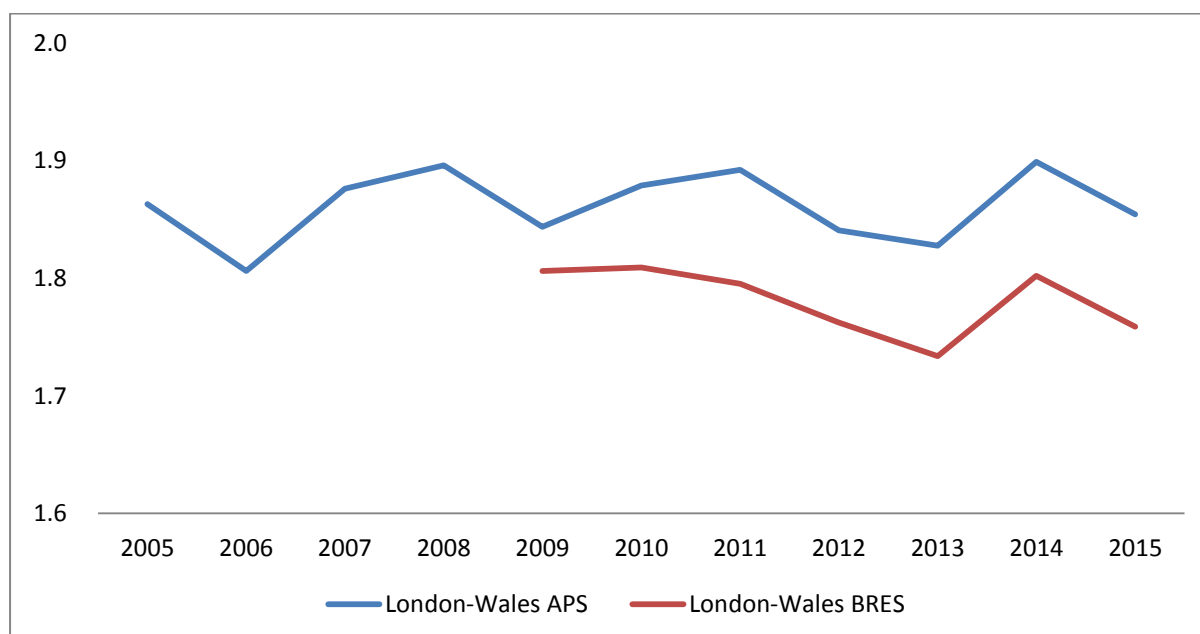
<sup>3</sup> ONS (2016), Regional GVA Reference Tables, own calculations.

**Chart 1: Standard deviation of GVA per head and GVA per employed worker across UK NUTS1 regions, 2005-2015.**



**Sources:** GVA in NUTS1 regions: ONS (2016), Regional GVA Reference Tables; Number of Employed in each NUTS1 region: 1) Annual Population Survey, workplace analysis, 2005-2015 and 2) Business Register and Employment Survey, 2009-2015; own calculations. Dispersion is measured as standard deviation in indexed GVA per head and per employed worker [UK ave = 100] across UK regions in each year.

**Chart 2: GVA per Employed Worker, Ratio between London and Wales, 2005-2015**



**Sources:** GVA in NUTS1 regions: ONS (2016), Regional GVA Reference Tables; Number of Employed in each NUTS1 region: 1) Annual Population Survey, workplace analysis, 2005-2015 and 2) Business Register and Employment Survey, 2009-2015; own calculations.

Using GVA per employed worker, inequality in productivity across UK regions looks considerably less severe [Table 1, right hand column]. Put simply, a major source of regional inequality is that more employed people of working age either live in or commute into London than other regions. This accounts for nearly half of the gap in the headline GVA per head productivity measure between London and Wales, the highest and lowest GVA per head regions in 2015. While London produced 2.4 times as much as Wales (the lowest productivity region in 2015) per inhabitant, each person employed in London produced only 1.8 times as much as each person employed in Wales [Chart 2]. Moreover, we find that dispersion of GVA per employed worker across UK regions has been quite steady throughout this period [Chart 1], and is lower than that of the GVA per inhabitant measure.

While commuting and differences in the share of the population which is working aged are important factors in regional inequalities in GVA per head, regional differences in activity rates of the working aged also play some role. As a result, lower activity rates also contribute to lower levels of GVA per head.

### **Components of GVA: Profits and Wages**

GVA can be broken down into two main components: wages and profits. We find that wages (measured as employee compensation per employee) were more evenly distributed across regions than profits in the most recent data from 2015 [Table 3].<sup>4</sup> Employee compensation per employee in London was 1.5 times as high as in Wales in 2015, while total profits (measured as gross operating per employee) were 1.9 times higher in London than in Wales, and 2.1 times higher than in the lowest profit region, Yorkshire and the Humber. This is also reflected in the higher overall dispersion of profit measures and components than of employee compensation per employee [Table 3].

Some part of the regional wage differential may be accounted for by differences in skills. While by 2015 50% of London working aged (16-64 year old) population had NVQ4 qualifications or above, the corresponding figures for the North East and Wales were only 31% and 33%, respectively.<sup>5</sup>

Moreover, regional inequalities in the employee compensation per employee measure of wages have been falling over time [Chart 3]. Since the Conservatives came to power in 2010, it is nominal wages in London which have been stagnating, while nominal wages of workers employed in the rest of the country have experienced modest growth of between 4.4% and 8.1% in the employee compensation per employee measure over the period 2010-2015. [Annex Table A3.1]

At the same time, the distribution of gross profits across regions has been growing more unequal since 2009 [Chart 3]. This is mainly driven by increases in the dispersion of rental income.<sup>6</sup> Rental income per London employee has increased by more than 30% since 2009, more than twice as much as the average of the remaining regions [Annex Table A3.4]. While owners of London investment property might benefit from this greater rental income, higher rents represent an increase in cost to many businesses. As a result, the higher trading profits for London-based entities should be seen against a backdrop of increasing costs for many of them.

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<sup>4</sup> Employee compensation measures the costs to firms of employing its workers. It includes wages and salaries, but also firms' national insurance and pension contributions. We use the measure employee compensation per employee, which excludes the self-employed. This is sensible, because the mixed income of the self-employed is also excluded from employee compensation.

<sup>5</sup> ONS (2017), Annual Population Survey, 2004-2016.

<sup>6</sup> See the notes to Annex Table A3 for details on the GVA breakdown. The profits component of GVA consists of four main parts: trading profits earned by private sector firms, trading surplus earned by public sector entities, mixed income of private sector sole traders, and rental income. These profits are then corrected by terms which account for capital consumption of public sector bodies, holding gains (changes in the value of assets), taxes and subsidies. We focus on the two largest components, trading profits earned by private sector firms and rental income, which together make up nearly 90% of the profits component of GVA.

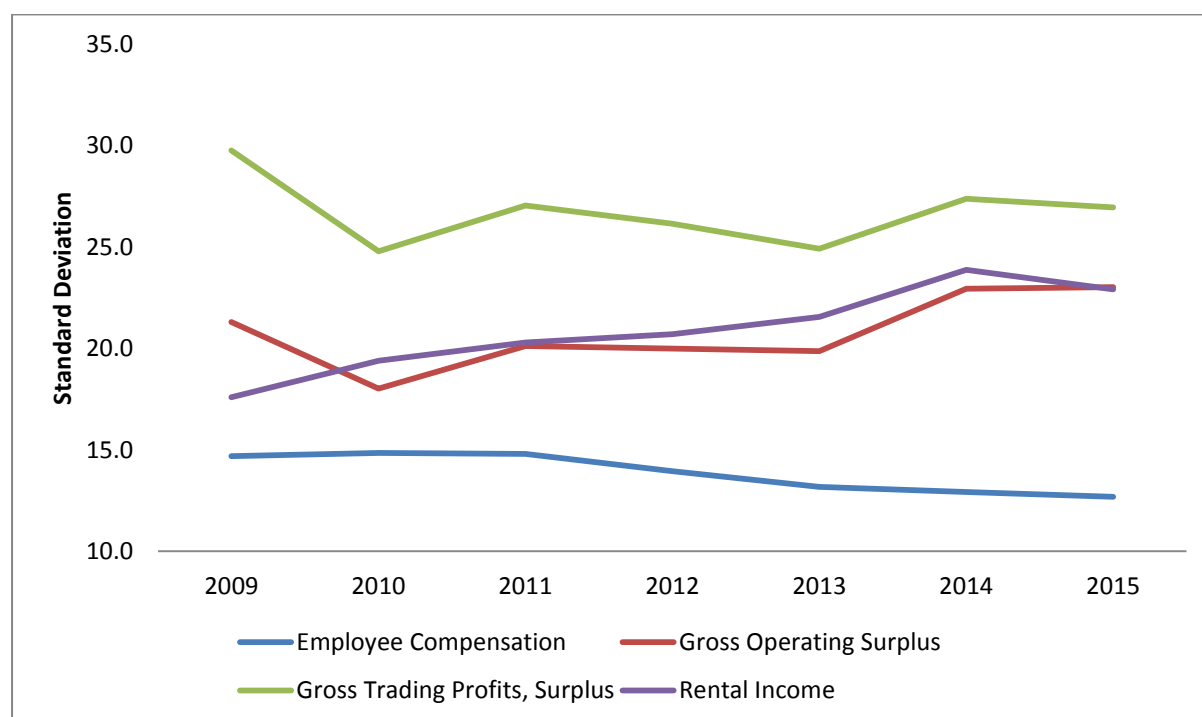


**Table 3: Components of GVA across UK NUTS1 Regions, 2015 [UK=100]**

Region	Employee Compensation per Employee	Gross Operating Surplus per Employee	Trading Profits + Surplus per Employee	Rental Income per Employee
United Kingdom	100.0	100.0	100.0	100.0
North East	86.7	74.1	71.3	74.2
North West	91.5	80.0	87.8	76.6
Yorksh. and The Humber	89.2	72.0	70.8	78.1
East Midlands	89.2	79.3	82.1	78.6
West Midlands	91.5	78.2	76.9	80.5
East of England	95.2	102.0	98.0	106.8
London	128.6	148.1	160.4	143.7
South East	104.7	111.7	115.4	117.6
South West	92.6	91.0	85.8	108.9
Wales	83.4	78.7	64.9	83.4
Scotland	94.2	83.7	95.1	74.9
Northern Ireland	n.a.	n.a.	n.a.	n.a.
Dispersion	12.7	23.0	26.9	22.9
Max-Min Ratio	1.5	2.1	2.5	1.9

**Sources:** The NUTS1 regional estimates of GVA and its components are from the ONS (2016), Regional Gross Value Added Reference Tables, while the estimates of regional employee counts are from the ONS Business Register Employment Survey (BRES). Own calculations.

**Chart 3: Regional dispersion in components of GVA per employee, 2009-2015**



**Sources:** The NUTS1 regional estimates of GVA and its components are from the ONS (2016), Regional Gross Value Added Reference Tables, while the estimates of regional employee counts are from the ONS Business Register Employment Survey (BRES). Regional dispersion is measured as standard deviations across indexed regional values in each year.

## Summary

Inequality in the headline measure of regional productivity, GVA per head, has been increasing steadily since 2005. However, when regional productivity is re-calculated to reflect more accurately the productivity of a region's *workplaces*, the picture is quite different. Using GVA per employed worker, we find less regional inequality in productivity across regions, and that the level of inequality across regions has been quite stable since 2005.

In addition, using the headline GVA per head measure, we find substantial diversity in productivity within regions. We also find that every UK region has at least one local area whose productivity lies above the national average, with the exception of Wales and the North East of England.

Breaking down GVA into its components, we find that regional inequality in employee compensation per employee (a measure of wages) has actually decreased somewhat since 2010, while regional inequality in rental income per employee has increased. Underlying these phenomena are stagnant nominal wages (measured as employee compensation per employee) in London, coupled with increases in rental incomes per employee in London. This gives a mixed picture of the attractiveness of London relative to other parts of the UK as a business location, with wages lagging behind other regions, but costs of property increasing more strongly since 2010.

## Annex Tables

**Table A1: GVA per head by NUTS1 region, 2005-2015, UK average = 100**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
UK	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
England	102.9	102.7	102.7	102.9	102.7	103.1	103.1	103.1	103.1	103.2	103.2
North East	76.7	77.4	75.5	75.7	75.6	75.3	75.3	75.0	74.5	74.1	74.7
North West	86.4	87.7	87.0	87.3	88.3	87.9	85.5	85.5	86.4	85.5	86.3
Yorksh/Humber	85.3	85.2	85.7	84.5	85.2	83.7	83.2	82.3	81.8	80.0	80.3
E Midlands	84.5	84.5	84.1	83.9	82.0	83.8	84.0	83.7	84.0	83.5	82.6
W Midlands	86.3	85.9	84.1	83.0	81.2	82.3	82.5	82.9	82.7	82.6	82.1
E of England	98.0	98.5	96.6	97.6	95.6	95.6	94.7	94.1	94.9	94.9	94.6
London	163.4	161.6	166.0	166.4	167.1	167.1	171.0	171.3	169.6	172.9	172.1
South East	110.2	109.5	109.1	109.7	108.8	110.0	109.3	110.4	110.3	109.6	109.8
South West	93.2	92.4	92.1	92.2	93.1	94.0	91.8	91.2	90.9	90.9	90.8
Wales	74.1	74.4	73.4	71.3	71.7	70.8	72.3	72.6	72.4	70.5	71.0
Scotland	93.1	94.5	94.1	94.6	96.8	93.5	93.2	92.3	93.3	93.7	93.4
N Ireland	80.6	81.7	83.6	80.5	79.2	77.8	76.9	76.3	75.9	73.8	73.3
Dispersion	23.8	23.2	24.5	25.0	25.3	25.5	26.5	26.7	26.3	27.5	27.3
Max-Min Ratio	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.5	2.4

Source: ONS (2016), Regional GVA Reference Tables and own calculations

### Notes for Tables A1 – A2.2

Dispersion: Standard deviations across UK regions in each year, own calculations

Max-Min Ratio: Ratio of the highest and lowest values for each year

**Table A2.1: GVA per employed by NUTS1 region, 2005-2015, using APS Employment data, UK average = 100**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
UK	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North East	83.2	83.9	80.5	81.4	82.1	81.5	82.6	82.0	82.9	81.5	81.9
North West	88.6	89.9	89.0	90.1	90.9	89.0	86.8	87.3	88.7	88.9	89.2
Yorksh/Humber	86.5	86.0	87.4	85.9	87.2	86.5	86.7	85.5	84.5	82.4	81.8
East Midlands	86.5	86.0	86.5	86.7	84.4	87.3	87.0	86.1	87.7	86.6	86.2
West Midlands	88.2	88.6	87.2	87.1	85.3	87.3	87.8	87.8	87.3	86.6	86.9
East of England	100.5	102.6	100.7	102.9	100.6	100.2	97.9	98.7	99.0	100.8	99.6
London	149.5	146.1	148.6	146.3	145.3	145.8	148.7	146.5	143.9	145.2	143.9
South East	107.2	107.9	108.7	108.7	107.8	109.0	108.7	110.3	110.4	110.3	111.2
South West	90.0	88.9	88.4	88.1	89.6	90.0	88.5	88.2	88.3	88.0	87.9
Wales	80.2	80.9	79.2	77.2	78.8	77.6	78.6	79.6	78.7	76.4	77.6
Scotland	91.5	91.8	91.0	91.8	93.7	91.0	91.3	90.7	91.6	92.2	92.8
Northern Ireland	89.8	90.4	90.5	87.9	87.7	84.9	82.2	82.7	82.1	80.4	80.3
Dispersion	18.6	17.7	18.7	18.4	17.9	18.2	19.0	18.5	17.9	18.8	18.4
Max-Min Ratio	1.9	1.8	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.9	1.9

Sources: GVA by NUTS 1 region: ONS (2016), Regional GVA Reference Tables

Employed workers by NUTS1 region: Annual Population Survey, workplace analysis, 2004-2016

**Table A2.2: GVA per employed by NUTS1 region, 2005-2015, using BRES employment data, UK ex N Ireland average = 100**

	2009	2010	2011	2012	2013	2014	2015
UK ex N Ireland	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North East	84.9	84.1	84.8	84.8	84.2	83.4	82.7
North West	90.6	90.3	87.8	87.4	88.6	87.7	88.7
Yorksh/Humber	87.5	86.7	86.9	87.2	86.0	83.9	83.8
East Midlands	84.1	85.7	86.4	86.5	87.6	87.9	86.5
West Midlands	85.5	86.1	86.5	86.5	86.8	86.9	86.8
East of England	99.1	100.3	99.0	98.6	99.6	98.4	98.8
London	142.2	140.5	141.6	138.7	136.5	139.3	137.3
South East	108.7	108.1	108.4	109.7	109.7	110.1	109.3
South West	90.3	92.1	91.3	91.9	91.9	91.2	92.7
Wales	78.7	77.6	78.9	78.7	78.7	77.3	78.1
Scotland	91.9	91.1	89.8	90.5	90.9	90.4	91.6
Dispersion	17.7	17.2	17.4	16.7	16.2	17.2	16.6
Max-Min Ratio	1.8	1.8	1.8	1.8	1.7	1.8	1.8

**Sources:** GVA by NUTS 1 region: ONS (2016), Regional GVA Reference Tables

Employed workers by NUTS1 region: Business Register Employment Survey, 2009-2015

BRES employment data is unavailable for Northern Ireland

**Table A3.1: Employee Compensation per Employee at current basic prices, £**

	2009	2010	2011	2012	2013	2014	2015	Growth 2010-15
UK ex NI	29,195	30,173	30,575	31,100	31,751	31,526	31,898	5.7%
North East	25,602	26,479	26,921	27,026	27,865	27,548	27,643	4.4%
North West	26,693	27,303	27,227	28,069	28,893	28,675	29,171	6.8%
Yorksh/Humber	26,230	26,789	27,402	27,990	28,657	28,090	28,440	6.2%
East Midlands	25,388	26,790	27,289	27,757	28,541	28,602	28,467	6.3%
West Midlands	26,560	27,310	27,659	28,076	28,968	29,024	29,202	6.9%
East of England	27,493	28,258	28,615	29,103	29,803	29,647	30,382	7.5%
London	39,434	40,853	41,428	41,163	41,370	40,840	41,032	0.4%
South East	30,519	31,382	31,567	32,613	33,144	32,834	33,383	6.4%
South West	26,209	27,333	27,472	27,947	28,520	28,476	29,535	8.1%
Wales	24,725	25,149	25,753	26,049	26,623	26,308	26,597	5.8%
Scotland	27,199	28,009	28,358	28,844	29,639	29,821	30,063	7.3%

**Table A3.2: Gross Operating Surplus per Employee at current basic prices, £**

	2009	2010	2011	2012	2013	2014	2015
UK ex NI	18,757	19,279	20,376	20,187	20,881	21,759	21,655
North East	13,831	14,486	14,973	15,472	15,516	16,273	16,050
North West	15,547	16,570	16,308	15,924	16,738	17,238	17,332
Yorksh/Humber	15,149	15,471	15,957	15,640	15,649	15,715	15,599
East Midlands	13,868	14,941	15,687	15,741	16,801	17,497	17,175
West Midlands	13,585	14,871	15,655	15,873	16,243	16,881	16,927
East of England	19,019	20,334	20,805	20,499	21,746	22,269	22,079
London	26,737	25,771	28,377	28,056	28,745	31,822	32,071
South East	19,717	20,095	21,754	22,053	22,958	24,494	24,180
South West	15,919	17,098	17,883	18,215	18,647	19,319	19,701
Wales	14,830	15,201	16,185	16,267	16,828	16,776	17,043
Scotland	14,860	16,187	16,337	16,455	17,178	17,495	18,117

**Notes to Tables A3.1-A3.4:** Gross Value Added is the sum of Employee Compensation and Gross Operating Surplus from private and public sector entities, plus the Mixed Income from the sole traders, plus Taxes on Production and minus Subsidies.

Gross Operating Surplus can be further broken down into: Gross Trading Profits from private sector entities, Gross Trading Surplus from public sector entities, Rental Income from both private and public sector entities, Non-Market Capital Consumption of public sector bodies and Holding Gains. By far the largest components are Gross Trading Profits/Surplus (57% of the total Gross Operating Surplus on average over 2009-15) and Rental Income (33% of total Gross Operating Surplus).

**Table A3.3: Gross Trading Profit + Gross Trading Surplus per Employee at current basic prices, £**

	2009	2010	2011	2012	2013	2014	2015
UK ex NI	10,457	10,668	11,267	11,165	11,782	12,700	12,793
North East	7,714	8,056	8,281	8,527	8,469	9,216	9,127
North West	9,659	10,466	10,073	9,688	10,491	11,132	11,239
Yorksh/Humber	8,771	8,820	8,951	8,707	8,759	8,931	9,053
East Midlands	7,676	8,460	8,948	8,918	9,850	10,558	10,509
West Midlands	7,018	7,923	8,575	8,700	9,003	9,688	9,842
East of England	10,700	11,414	11,497	11,009	12,124	12,510	12,541
London	17,919	16,637	18,572	18,096	18,189	20,550	20,520
South East	11,485	11,538	12,603	12,699	13,585	14,748	14,759
South West	8,636	9,285	9,605	9,558	10,113	10,814	10,970
Wales	6,943	7,063	7,701	7,637	8,055	8,188	8,301
Scotland	10,196	10,559	10,516	10,633	11,430	11,883	12,162

**Table A3.4: Rental Income per Employee at current basic prices, £**

	2009	2010	2011	2012	2013	2014	2015
UK ex NI	6,020	6,137	6,460	6,790	6,862	7,156	7,113
North East	4,941	4,800	4,932	5,201	5,300	5,399	5,277
North West	5,024	4,950	5,113	5,279	5,243	5,311	5,448
Yorksh/Humber	5,218	5,268	5,552	5,779	5,726	5,752	5,559
East Midlands	5,132	5,078	5,285	5,508	5,584	5,775	5,588
West Midlands	5,303	5,267	5,491	5,715	5,728	5,853	5,727
East of England	6,587	6,859	7,211	7,582	7,629	7,896	7,596
London	7,585	7,848	8,350	8,815	9,258	10,138	10,225
South East	7,287	7,485	7,924	8,332	8,340	8,846	8,363
South West	6,618	6,880	7,311	7,733	7,602	7,661	7,749
Wales	5,195	5,125	5,320	5,610	5,559	5,619	5,933
Scotland	4,451	4,541	4,751	4,969	4,927	4,917	5,330

**Sources to Tables A3.1-A3.4:** The NUTS1 regional estimates of GVA and its components are from the ONS (2016), Regional Gross Value Added Reference Tables, while the estimates of regional employee counts are from the ONS Business Register Employment Survey (BRES). Own calculations.

**Table A4.1: Employee Compensation per Employee, UK ex Northern Ireland = 100.0**

	2009	2010	2011	2012	2013	2014	2015
UK ex NI	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North East	87.7	87.8	88.1	86.9	87.8	87.4	86.7
North West	91.4	90.5	89.1	90.3	91.0	91.0	91.5
Yorksh/Humber	89.8	88.8	89.6	90.0	90.3	89.1	89.2
East Midlands	87.0	88.8	89.3	89.3	89.9	90.7	89.2
West Midlands	91.0	90.5	90.5	90.3	91.2	92.1	91.5
East of England	94.2	93.7	93.6	93.6	93.9	94.0	95.2
London	135.1	135.4	135.5	132.4	130.3	129.5	128.6
South East	104.5	104.0	103.2	104.9	104.4	104.1	104.7
South West	89.8	90.6	89.9	89.9	89.8	90.3	92.6
Wales	84.7	83.3	84.2	83.8	83.8	83.4	83.4
Scotland	93.2	92.8	92.8	92.7	93.3	94.6	94.2
Dispersion	14.7	14.9	14.8	13.9	13.2	12.9	12.7
Max-Min Ratio	1.6	1.6	1.6	1.6	1.6	1.6	1.5

**Table A4.2: Gross Operating Surplus per Employee, UK ex Northern Ireland = 100.0**

	2009	2010	2011	2012	2013	2014	2015
UK ex NI	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North East	73.7	75.1	73.5	76.6	74.3	74.8	74.1
North West	82.9	86.0	80.0	78.9	80.2	79.2	80.0
Yorksh/Humber	80.8	80.3	78.3	77.5	74.9	72.2	72.0
East Midlands	73.9	77.5	77.0	78.0	80.5	80.4	79.3
West Midlands	72.4	77.1	76.8	78.6	77.8	77.6	78.2
East of England	101.4	105.5	102.1	101.5	104.1	102.3	102.0
London	142.5	133.7	139.3	139.0	137.7	146.2	148.1
South East	105.1	104.2	106.8	109.2	109.9	112.6	111.7
South West	84.9	88.7	87.8	90.2	89.3	88.8	91.0
Wales	79.1	78.8	79.4	80.6	80.6	77.1	78.7
Scotland	79.2	84.0	80.2	81.5	82.3	80.4	83.7
Dispersion	21.3	18.0	20.1	20.0	19.9	22.9	23.0
Max-Min Ratio	2.0	1.8	1.9	1.8	1.9	2.0	2.1

**Notes to Tables A4.1-A4.4:**

Dispersion across NUTS1 regions is calculated as the (sample) standard deviation across NUTS1 regions for each year. The Max-Min Ratio is the ratio between the highest and lowest values for each year. The highest value is always that associated with London.

**Table A4.3: Gross Trading Profits + Gross Trading Surplus per Employee, UK ex N Ireland = 100.0**

	2009	2010	2011	2012	2013	2014	2015
UK ex NI	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North East	73.8	75.5	73.5	76.4	71.9	72.6	71.3
North West	92.4	98.1	89.4	86.8	89.0	87.6	87.8
Yorksh/Humber	83.9	82.7	79.4	78.0	74.3	70.3	70.8
East Midlands	73.4	79.3	79.4	79.9	83.6	83.1	82.1
West Midlands	67.1	74.3	76.1	77.9	76.4	76.3	76.9
East of England	102.3	107.0	102.0	98.6	102.9	98.5	98.0
London	171.4	155.9	164.8	162.1	154.4	161.8	160.4
South East	109.8	108.2	111.9	113.7	115.3	116.1	115.4
South West	82.6	87.0	85.3	85.6	85.8	85.1	85.8
Wales	66.4	66.2	68.3	68.4	68.4	64.5	64.9
Scotland	97.5	99.0	93.3	95.2	97.0	93.6	95.1
Dispersion	29.8	24.8	27.0	26.1	24.9	27.4	26.9
Max-Min Ratio	2.6	2.4	2.4	2.4	2.3	2.5	2.5

**Table A4.4: Rental Income per Employee, UK ex N Ireland = 100.0**

	2009	2010	2011	2012	2013	2014	2015
UK ex NI	100.0	100.0	100.0	100.0	100.0	100.0	100.0
North East	82.1	78.2	76.4	76.6	77.2	75.5	74.2
North West	83.5	80.7	79.1	77.7	76.4	74.2	76.6
Yorksh/Humber	86.7	85.8	85.9	85.1	83.4	80.4	78.1
East Midlands	85.3	82.8	81.8	81.1	81.4	80.7	78.6
West Midlands	88.1	85.8	85.0	84.2	83.5	81.8	80.5
East of England	109.4	111.8	111.6	111.7	111.2	110.4	106.8
London	126.0	127.9	129.3	129.8	134.9	141.7	143.7
South East	121.0	122.0	122.7	122.7	121.5	123.6	117.6
South West	109.9	112.1	113.2	113.9	110.8	107.1	108.9
Wales	86.3	83.5	82.3	82.6	81.0	78.5	83.4
Scotland	73.9	74.0	73.6	73.2	71.8	68.7	74.9
Dispersion	17.6	19.4	20.3	20.7	21.5	23.9	22.9
Max-Min Ratio	1.7	1.7	1.8	1.8	1.9	2.1	1.9

**Sources to Tables A4.1-A4.4:** The NUTS1 regional estimates of GVA and its components are from the ONS (2016), Regional Gross Value Added Reference Tables, while the estimates of regional employee counts are from the ONS Business Register Employment Survey (BRES). Own calculations.