



Private Sector Employment Indicator, Quarter 4 2014 (November 2014 to January 2015)

1. Introduction

As part of the [Departmental Business Plan](#) to support the Government's agenda to rebalance the economy across sectors and regions, the Department for Business, Innovation and Skills (BIS) developed an Indicator to monitor private sector employment growth in England. The Indicator:

- forms part of the [performance framework](#) for assessing the impact of the Department's policies and reforms; and.
- shows whether, over time, dependency on the private sector for employment is increasing and how this rebalancing varies by region¹.

Since 2008, a number of bodies employing large numbers of people have moved between the public and private sectors. The aim of the Private Sector Employment Indicator (PSEI) is to monitor the underlying growth in private sector employment excluding the effects of these major reclassifications, so this publication classifies the employment of bodies subject to major reclassifications over the series as private sector for the entire reporting period².

The figures published in this release are seasonally adjusted unless otherwise stated.

Methodology change

A revised methodology has been used for calculating the annual Private Sector Employment Indicator in this statistical bulletin. The new methodology is consistent with ONS annual estimates of private and public sector employment, and uses a more robust sampling methodology than previously. For details of the methodology change and the impact on historic figures, see the Revisions section on page 13.

¹ BIS monitors the change in the Indicator and its components of Private Sector and Public Sector Employment for England and the two regional groupings of the Greater South East (London, South East and East) and the Rest of England (North, Midlands and West); data are also published for all English regions.

² See the Reclassifications section of the Background Note on page 14 for more details.

2. Key Points

For November 2014 to January 2015 (Quarter 4 2014):

- The proportion of the population aged from 16 to 64 or in employment and aged over 65 who were working in the private sector (the Private Sector Employment Indicator) in England was 62.1%. The indicator was up 0.3 percentage points from Q3 (August to October 2014) and up 1.6 percentage points from a year earlier;
- Sub-nationally, the Private Sector Employment Indicator for the Greater South East (London, South East and East) increased by 1.1 percentage points from Q4 2013 to 64.5%. This was underpinned by significant increases in London, up 1.7 percentage points from a year earlier to 64.2%, and East of England, up 0.9 percentage points from last year to 64.0%. The Indicator for the Rest of England was 60.2%, an increase of 2.1 percentage points from the same quarter in 2013. The annual increase in the Rest of England is mainly due to increases in the North East (2.6 percentage points) and the North West (2.6 percentage points);
- The Private Sector Employment Indicator increased in seven out of the nine English regions on the previous quarter, and it was above the Quarter 1 (February – April) 2008 levels in all regions except the South East.

Table 1: Private Sector Employment Indicator: level and change by region, Quarter 4 2014, seasonally adjusted

Private Sector Employment Indicator, England and English regions, Q4 2014			
	Share (%)	Quarterly change(ppts)	Annual change(ppts)
England	62.1	0.3	1.6
Greater South East	64.5	0.2	1.1
Rest of England	60.2	0.4	2.1
North East	55.6	0.7	2.6
North West	59.1	0.7	2.6
Yorkshire & the Humber	59.6	0.3	1.8
East Midlands	62.1	0.3	1.9
West Midlands	59.4	0.9	2.1
East of England	64.0	0.0	0.9
London	64.2	0.4	1.7
South East	65.0	0.2	0.5
South West	64.4	-0.1	1.3

Source : BIS, Private Sector Employment Indicator

Notes

1. Since yearly data remove seasonal effect, in Table 1, the significant changes are based on a 95% confidence level on non seasonally adjusted data. Significant changes are highlighted in bold font.
2. Greater South East includes London, South East and East of England.
3. The Rest of England includes North East, North West, Yorkshire and the Humber, East Midlands, West Midlands and South West.
4. Quarter 1 corresponds to February – April, Quarter 2 corresponds to May – July, Quarter 3 corresponds to August - October, and Quarter 4 corresponds to November – January.

3. England and Sub-National Indicator

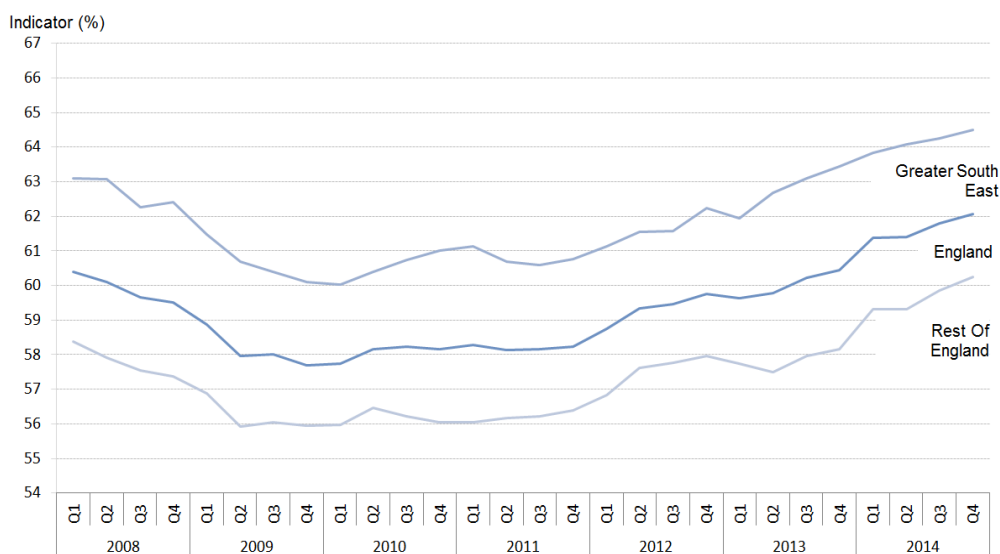
The Indicator in England increased by 1.6 percentage points on the same quarter a year ago, to 62.1%. This increase was a result of rising private sector employment (+696 thousand), declining public sector employment (-31 thousand), unemployment (-437 thousand) and inactivity (-24 thousand). The number of people in private sector employment reached an estimated 21.7 million, the highest recorded level of employment since the series for England began in 2008.

The Indicator for England was up 0.3 percentage points on the previous quarter. Private sector employment increased by 77 thousand, while public sector employment was 20 thousand higher than the previous quarter.

The Indicator for the Greater South East reached an estimated 64.5%, a rise of 1.1 percentage points on the same quarter a year ago and a rise of 0.2 percentage points on the previous quarter. Since Q4 2014, there were an estimated 11.7 million people employed in the Greater South East, of which the private sector employed 9.9 million. Increasing private sector employment (+231 thousand) outweighed the increase in public sector employment (+4 thousand). Unemployment fell (-150 thousand) while inactivity rose (+21 thousand).

The Indicator for the Rest of England increased to 60.2%, an increase of 2.1 percentage points on the same period a year ago, and of 0.4 percentage points on the previous quarter. Employment in the Rest of England stood at 14.3 million for Quarter 4 2014, of which the private sector employed an estimated 11.8 million people. Private sector employment rose (+465 thousand) whilst public sector employment declined (-34 thousand). Over the same period unemployment (-286 thousand) and Inactivity (-45 thousand) fell. The difference between the Greater South East and Rest of England indicator has remained quite static since 2008.

Figure 1: Private Sector Employment Indicator, England, Greater South East and Rest of England, Quarter 1 2008 to Quarter 4 2014, seasonally adjusted

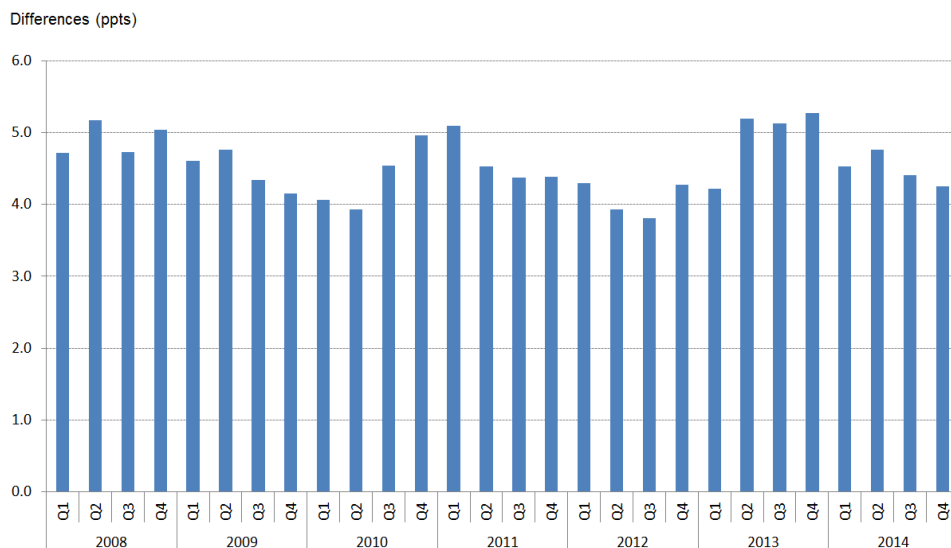


Source: BIS, Private Sector Employment Indicator

Notes:

1. Workplace based employment includes both part-time and full-time employment and self-employment. It excludes those working outside of the UK and some respondents who do not give a region of workplace.
2. Unemployment and inactivity are residence based.
3. Greater South East includes London, South East and East of England.
4. The Rest of England includes North East, North West, Yorkshire and the Humber, East Midlands, West Midlands and South West.
5. Quarter 1 corresponds to February – April, Quarter 3 corresponds to May – July, Quarter 4 corresponds to August - October, and Quarter 4 corresponds to November – January.

Figure 2: Private Sector Employment Indicator, differences between Greater South East and Rest of England, Quarter 1 2008 to Quarter 4 2014, seasonally adjusted



Source: BIS, Private Sector Employment Indicator

Notes

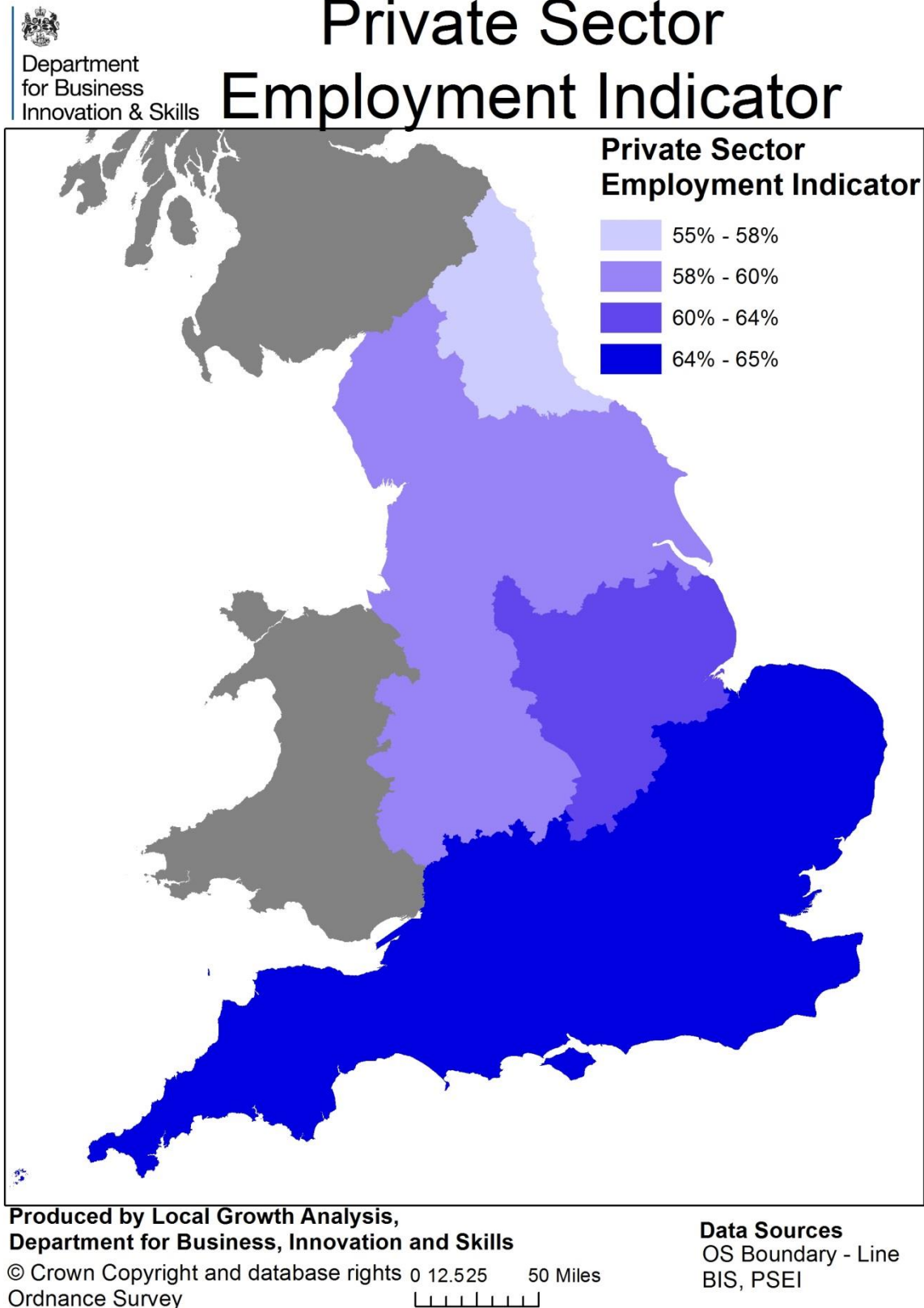
1. A positive value indicates that the Greater South East value is greater than that of the Rest of England.
2. Employment is workplace based, and includes both part-time and full-time employment and self-employment. It excludes those working outside of the UK and some respondents who do not give a region of workplace.
3. Unemployment and inactivity are residence based.
4. Greater South East consists of London, South East and East of England.
5. The Rest of England includes North East, North West, Yorkshire and the Humber, East Midlands, West Midlands and South West.
6. Quarter 1 corresponds to February – April, Quarter 2 corresponds to May – July, Quarter 3 corresponds to August - October, and Quarter 4 corresponds to November – January.

4. English Regions Indicator

From Quarter 3 2014 to Quarter 4 2014, the indicator increased in seven out of the nine English regions. The largest increases were in West Midlands (0.9 percentage points) and North West (0.7 percentage points). South West experienced a slight decrease of 0.1 percentage points.

Between Quarter 4 2013 and Quarter 4 2014, the Indicator increased significantly in all 9 English regions. The largest increases were in North West and North East; both up by 2.6 percentage points. The Indicator reached or surpassed the Quarter 1 2008 Indicator level all English regions with the exception of the South East.

Figure 3: Private Sector Employment Indicator, English regions, Quarter 4 2014

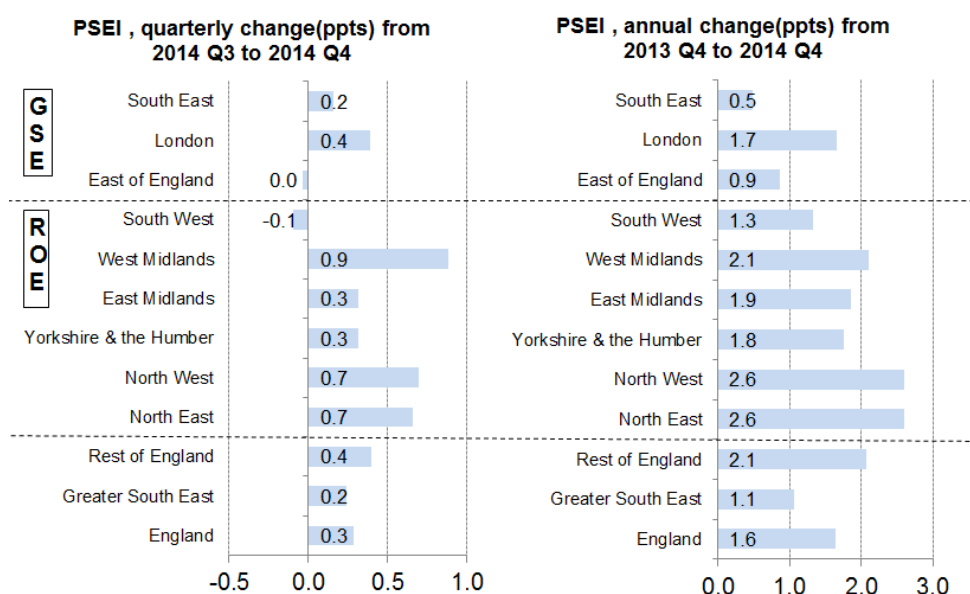


Source: BIS, Private Sector Employment Indicator, Non Seasonally Adjusted

Comparing the Indicator for the regions within the Greater South East (London, South East and East), London has consistently been the lowest, and the South East has consistently been the highest. During 2012 there was convergence between the three regions, partly driven by rapid increases in the Indicator in London. This trend has continued in 2014 in the first three quarters and in Q4 2014, London surpassed East of England.

There have been some signs of convergence between the regions within the Rest of England, with the gap between the top performing region (South West) and worst performing (North East) narrowing. Over the length of the series, the South West and the East Midlands have had the highest Indicator values of regions in the Rest of England; in contrast the North East has had the lowest Indicator values.

Figure 4: Private Sector Employment Indicator Quarterly and Annual Changes, England and English regions, Quarter 4 2014, seasonally adjusted



Source: BIS, Private Sector Employment Indicator

Notes

1. GSE = Greater South East; ROE = Rest of England
2. Workplace based employment includes both part-time and full-time employment and self-employment. It excludes those working outside of the UK and some respondents who do not give a region of workplace.
3. Unemployment and inactivity are residence based.
4. Greater South East includes London, South East and East of England.
5. The Rest of England includes North East, North West, Yorkshire and the Humber, East Midlands, West Midlands and South West.

5. Economic Context in Quarter 4 2014

This section provides contextual information on economic performance over Quarter 4 2014 (November 2014 to January 2015) and in the preceding months to help the user to interpret the statistics.

Official statistics indicate an improving outlook for the economy.

UK gross domestic product (GDP) in volume terms was estimated to have increased by 0.5% between Q3 2014 and Q4 2014, unrevised from the previous estimate of GDP published 27 January 2015. GDP in current prices was estimated to have increased by 0.4% between Q3 2014 and Q4 2014. Between Q4 2013 and Q4 2014, GDP in volume terms increased by 2.7%, unrevised from the previously published estimate.³

The Consumer Prices Index (CPI) grew by 0.3% in the year to January 2015, down from 0.5% in December 2014. Falling prices for motor fuels and food were the main contributors to the slowdown in the rate of inflation.⁴

Comparing the estimates for the three months ending January 2015 with those for August to October 2014, employment continued to rise and unemployment continued to fall. These changes maintain the general direction of movement since late 2011/early 2012. The proportion of the economically active population who were unemployed (the unemployment rate) was 5.7%, lower than for August to October 2014 (6.0%) and for a year earlier (7.2%). The proportion of people aged from 16 to 64 who were economically inactive (the inactivity rate) was 22.2%, little changed compared with August to October 2014 and with a year earlier.⁵

Continuing a sustained period of year-on-year growth, retail sales in January 2015 were estimated to have increased by 5.4% compared with January 2014. This is the 22nd consecutive month of year-on-year growth and the longest period of sustained year-on-year growth since May 2008 when there were 31 periods of growth. In January 2015, the amount spent in the retail industry increased by 2.3% compared with January 2014 and fell by 1.0% compared with December 2014. Non-seasonally adjusted data show that the average weekly spend in the retail industry in January 2015 was £6.5 billion, compared with £6.3 billion in January 2014 and £9.0 billion in December 2014.⁶

Total production output is estimated to have increased by 1.3% in January 2015 compared with January 2014. There were increases in two of the four main sectors, with manufacturing output being the largest contributor, increasing by 1.9%. In the three months to January 2015, production and manufacturing were 10.4% and 4.8% respectively below their figures reached in the pre-downturn GDP peak in Q1 2008.⁷

³ <http://www.ons.gov.uk/ons/rel/naa2/second-estimate-of-gdp/q4-2014/stb-q4-2014-statistical-bulletin.html>

⁴ <http://www.ons.gov.uk/ons/rel/cpi/consumer-price-indices/january-2015/index.html>

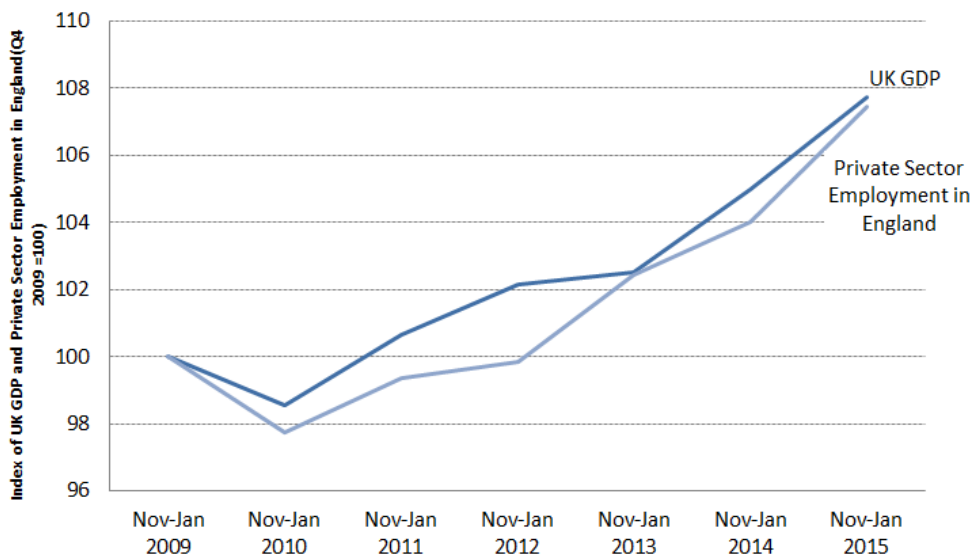
⁵ <http://www.ons.gov.uk/ons/rel/lms/labour-market-statistics/march-2015/index.html>

⁶ <http://www.ons.gov.uk/ons/rel/rsi/retail-sales/january-2015/index.html>

⁷ <http://www.ons.gov.uk/ons/rel/iop/index-of-production/january-2015/stb-iop-jan-2015.html>

Output in the construction industry decreased by 3.1% since January 2014. This was the first year-on-year decrease since May 2013 when it fell by 2.8%. New orders for the construction industry in Q4 2014 were estimated to have decreased by 2.9% compared with Q3 2014 and by 2.3% compared with Q4 2013. There were decreases in all work types except private industrial new work. The largest decreases were reported by public new housing (-13.1%), private commercial (-8.5%) and private new housing (-5.7%).⁸

Figure 5: Index showing growth the Private Sector Employment in England and real growth in UK Gross Domestic Product, Quarter 4 2008 to Quarter 4 2014



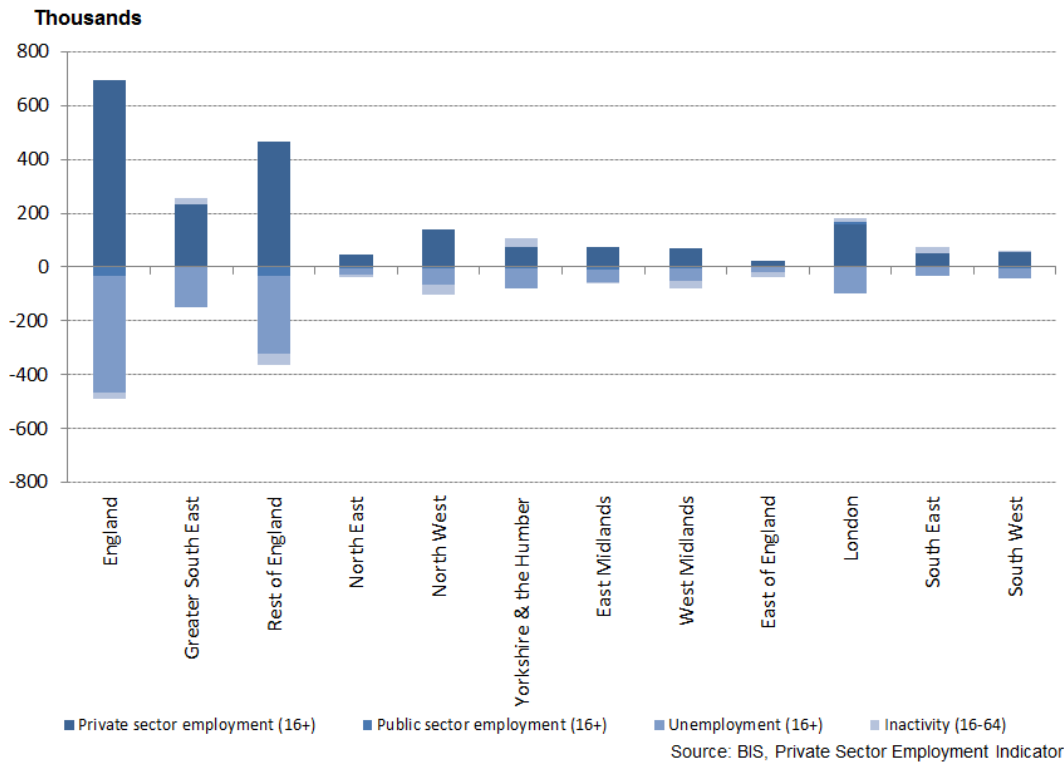
Sources: Quarterly ABMI GDP series, ONS and Private Sector Employment Indicator, BIS

Notes

1. Data are indexed to Quarter 4 2009.
2. The time periods of the two data series are slightly different: GDP data are based on calendar quarters, while employment data relates to the following periods: Quarter 1 (Feb to April), Quarter 2 (May to July), Quarter 3 (Aug to Oct) and Quarter 4 (Nov to Jan).
3. GDP data are for the UK rather than England. However, England accounts for the majority of the UK's economy – ONS' Regional Accounts indicate that England accounted for 84.8 % of the UK's Gross Value Added in 2012.
4. ONS GDP chained volume measure ABMI series.

⁸ <http://www.ons.gov.uk/ons/rel/construction/output-in-the-construction-industry/january-2015/index.html>

Figure 6: Annual Changes in Employment, Unemployment and Inactivity by regions, Quarter 4 2014, not seasonally adjusted



Notes

1. Changes are relative to the same quarter in the previous year.
2. Employment is workplace based, and includes both part-time and full-time employment and self-employment. It excludes those working outside of the UK and some respondents who do not give a region of workplace.
3. Unemployment and inactivity are residence based.
4. Greater South East includes London, South East and East of England.
5. The Rest of England includes North East, North West, Yorkshire and the Humber, East Midlands, West Midlands and South West.

Table 2: Employment, unemployment and inactivity, Non Seasonally Adjusted, Quarter 4 2014, thousands

Thousands, Non Seasonally Adjusted

	Private Sector Employment Indicator				Private sector employment (16+)			Public sector employment (16+)		Unemployment (16+)		Inactivity (16-64)		Total	
	Indicator	95% CI	Change ¹ (PPTs)	95% CI	Level	Change ¹	95% CI ²	Level	Change ¹	Level	Change ¹	Level	Change ¹	Level	Change ¹
		(ppts) ²		(ppts) ²											
England	62.2	0.4	1.6	0.6	21,743	696	203	4,225	-31	1,502	-437	7,511	-24	34,981	204
London, South East & East (GSE)	64.5	0.6	1.1	0.9	9,948	231	136	1,730	4	637	-150	3,113	21	15,427	105
Rest of England (RoE)	60.3	0.5	2.1	0.8	11,796	465	150	2,495	-34	865	-286	4,398	-45	19,554	99
North East	55.7	1.8	2.6	2.5	913	48	41	233	-7	96	-22	398	-10	1,640	9
North West	59.1	1.1	2.6	1.6	2,730	139	75	589	-5	214	-60	1,088	-40	4,622	34
Yorkshire & the Humber	59.4	1.3	1.7	1.8	2,046	75	60	461	-6	151	-71	784	30	3,442	28
East Midlands	61.8	1.4	2.2	2.0	1,760	75	58	333	-8	113	-47	642	-1	2,848	19
West Midlands	59.9	1.3	2.1	1.8	2,152	71	67	443	-4	174	-48	825	-30	3,594	-11
East of England	64.1	1.2	0.9	1.7	2,274	21	61	408	-3	151	-19	713	-15	3,547	-15
London	64.3	1.0	1.7	1.5	4,147	160	94	700	7	279	-98	1,326	15	6,452	83
South East	65.0	1.0	0.5	1.4	3,526	51	77	621	-1	206	-34	1,075	21	5,428	37
South West	64.4	1.2	1.3	1.9	2,195	57	63	435	-5	116	-37	661	5	3,408	20

Sources: Labour Force Survey and Private Sector Employment (ONS), and Private Sector Employment Indicator(BIS)

Notes

- Changes are relative to the same quarter in the previous year.
- Significant changes are highlighted in bold and are based on a 95% confidence level. As an example, suppose the indicator in the North East increased by 2.4 ppts in Q3 2014 compared to Q3 2013. We can work out the CI at 95% level for the indicator change in the North East region as (-0.1ppts, 4.9ppts), where the lower limit = 2.4 - 2.5 = -0.1ppts, and the upper limit = 2.4 + 2.5 = 4.9ppts.
- Employment is workplace based, and includes part-time and full-time employment and self-employment. It excludes those working outside of the UK and some respondents who do not give a region of workplace.
- Unemployment and inactivity are residence based.
- Greater South East includes London, South East and East of England.
- The Rest of England includes North East, North West, Yorkshire and the Humber, East Midlands, West Midlands and South West.
- Tables may not sum due to rounding.

6. Historical Analysis

All areas experienced a decline in the Indicator between Quarter 4 2008 and Quarter 4 2009, mainly due to the impact of the 2008/09 recession. England and six of the nine regions began a sustained recovery in Quarter 4 2009. This however began later in Yorkshire and the Humber, the East Midlands and the West Midlands. The Indicator declined for five of the nine regions between Quarter 4 2010 and Quarter 4 2011 and then increased in all regions between Quarter 4 2013 and Quarter 4 2014, with statistically significant changes in all of them.

The following gives a brief overview of the series from Quarter 1 2010 to Quarter 4 2014. All the comparisons are based on quarterly changes.

England – The Indicator increased steadily between 2010 and 2013, with the exception of the period between May 2011 and July 2011 where the Indicator fell by 0.2 percentage points and between February 2013 and April 2013 when it fell by 0.1 percentage points. The decrease between May 2011 and July 2011 was due to a decrease in the Indicator for the West Midlands, South West and the Greater South East regions and the decrease between February 2013 and April 2013 was due to a decrease in four of the English regions. Q4 2014 (November 2014 to January 2015) was the 7th quarter of consecutive increases in the PSEI.

Greater South East – The indicator increased steadily between 2010 and 2013, with the exception of the two quarters between May 2011 and October 2011 where the Indicator fell by a cumulative 0.5 percentage points, and the quarter between February and April 2013 where the Indicator fell by 0.1 percentage points. All regions in the Greater South East declined between May 2011 and July 2011, while the decrease was only in the East of England between August 2011 and October 2011. Q4 2014 (November 2014 to January 2015) was the 7th quarter of consecutive increases in the PSEI.

Rest of England – The Indicator increased steadily between 2010 and 2013, with the exception of the quarter between August 2010 and October 2010 where the Indicator fell 0.3 percentage points and the two quarters between February 2013 and July 2013 where the Indicator fell by a cumulative 0.4 percentage points. In the first of these periods only South West experienced an increase and in the second period only Yorkshire and the Humber did so. Q4 2014 (November 2014 to January 2015) was the 6th quarter of consecutive increases in the PSEI.

7. Background Note

Official Statistics

This publication is produced by statisticians working in the Local Growth Analysis Team in the Department for Business, Innovation and Skills (BIS). These data are experimental official statistics working towards full compliance with the [Code of Practice for Official Statistics](#).

Seasonal adjustment

All estimates discussed in this statistical release are seasonally adjusted except where otherwise stated. Like many economic indicators, the Indicator is affected by factors that tend to occur at around the same time every year; for example school leavers entering the labour market in July and whether Easter falls in March or April. In order to compare movements other than annual changes in the Indicator, such as since the previous quarter, the data are seasonally adjusted to remove the effects of seasonal factors and the arrangement of the calendar. Seasonal adjustment is performed quarterly and will be reviewed yearly, using the standard and widely used software X-12-ARIMA.

Revisions Policy

It is BIS's policy to be open and transparent with users about the reasons for revisions and how they are handled.

Revisions will be mainly due to changes in methodologies and source data. The Indicators are derived from surveys and administrative data sources. Changes to the underlying methods will cause revisions. These include changes in statistical methods, definitions, classifications and geographic coverage.

If revisions arising from changes to methodologies and source data are found to be insignificant, they will be published in the next planned publication. However, if these revisions are expected to have a large impact, then they will be introduced and published more quickly. A note will be added to the release to explain the revision and its impact.

Although robust procedures are in place to minimise errors in producing the statistics, errors may occasionally occur. When errors are found after the publication, their impact will be assessed. If these changes are significant, a correction notice will be issued as soon as practicable, while minor corrections will be included in the next planned release. In all cases a full explanation will be included as part of the next release.

Latest revisions

Public sector employment statistics have previously been published for all periods from 1999 up to and including Q3 2014. In line with the published ONS [revisions policy for public sector employment statistics](#), the statistics have been revised, to take account of late information from respondents. The effect of the revision on the Quarter 4 2013 Indicator (the most recent Indicator published by BIS prior to this publication) is an increase of 0.1 percentage points. The effect of the revision covers all regions as follows: North East (+0.1ppts); North West (+0.1ppts); Yorkshire and the Humber (+0.1 ppt); East Midlands (+0.1 ppts); West Midlands (+0.1ppts); East of England (+0.1 ppts); London (+0.1 ppts); South West (+0.1ppts); and South East (+0.1ppts).

In addition to the revisions described above, the annual time series in this publication have also been revised due to a change in methodology. Previously, the annual employment rates were estimated by a simple average of the four quarterly employment rates. They are now estimated using only the Quarter 2 employment rate because this is consistent with ONS statistics, and the Quarter 2 survey uses a larger sample so is more reliable. This means that historic figures in the publication may not match figures in previous editions.

The Indicator has been recalculated using the new methodology and the revised time series published in this statistical bulletin. The table below includes further analysis of the revisions to each series published.

The time series for England has been revised by a maximum of 0.1ppt. The effect of the revisions is slightly greater at the regional level, ranging from -0.5ppts to 0.4ppts.

Table 3: Revisions on the previous indicators (2008-2013) due to methodology change

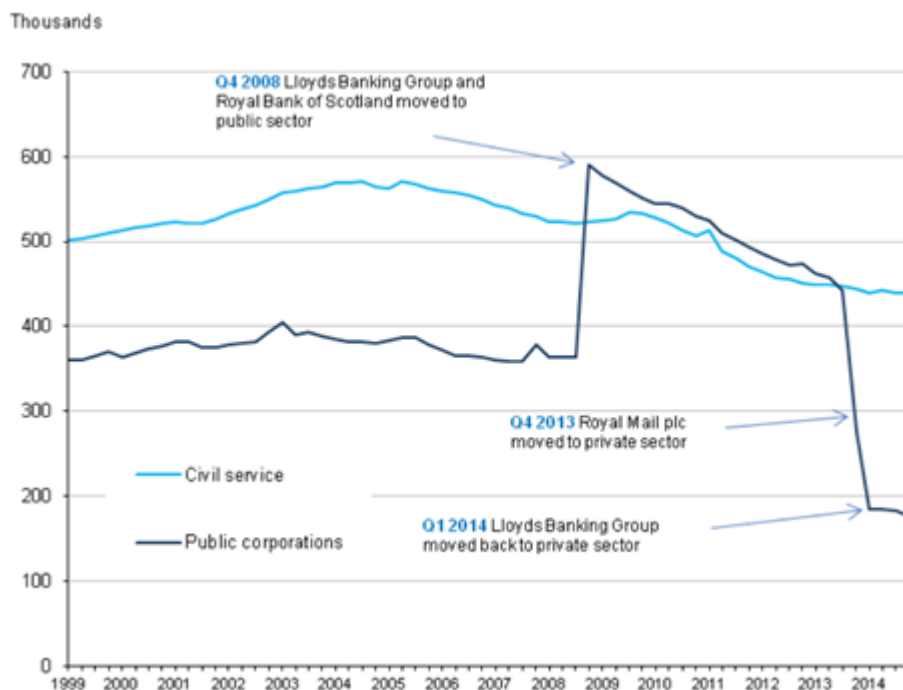
	Greater South East (London, South East & East)		Rest of England (North, Midlands and West)		England	
	Old method	New method	Old method	New method	Old method	New method
2008	62.8	62.8	57.9	57.9	60.0	60.0
2009	60.7	60.6	56.3	56.1	58.2	58.1
2010	60.5	60.4	56.1	56.3	58.0	58.1
2011	60.8	60.7	56.2	56.2	58.2	58.2
2012	61.6	61.6	57.6	57.5	59.3	59.3
2013	62.9	62.8	57.8	57.6	60.1	59.9

	North East	North West	Yorkshire & the Humber	East Midlands	West Midlands	East of England	London	South East	South West
2008	0.2	0.1	0.1	-0.3	0.1	0.0	0.0	0.2	0.1
2009	-0.5	-0.1	0.0	0.0	-0.4	-0.2	-0.2	0.1	-0.1
2010	0.4	0.2	0.1	-0.2	0.4	-0.2	-0.2	0.0	0.1
2011	0.1	0.1	0.4	0.2	-0.3	0.1	-0.3	0.0	-0.2
2012	-0.2	0.2	-0.2	0.0	-0.3	-0.1	-0.2	0.2	0.2
2013	-0.2	0.0	-0.1	-0.4	-0.4	-0.1	-0.2	0.1	-0.3

Reclassifications

Since 2008, a number of bodies employing large numbers of people have moved between the public and private sectors. The aim of the Private Sector Employment Indicator is to monitor the underlying growth in private sector employment excluding the effects of these major reclassifications, and so the methodology used in this publication classifies the employment of bodies subject to major reclassifications over the series as private sector for the entire reporting period.

Figure 8: UK public sector employment in Civil Service and public corporations, Q1 1999 to Q4 2014, seasonally adjusted



Source: Quarterly Public Sector Employment Survey - Office for National Statistics

Notes:

The major reclassifications are as follows:

1. Further Education corporations and Sixth Form College corporations in England are included in the private sector from Q2 2012 but in the public sector for earlier time periods.
2. Royal Mail plc is included in the private sector from Q4 2013 but in the public sector for earlier time periods.
3. Lloyds Banking Group plc is included in the public sector from Q4 2008 to Q4 2013 but in the private sector for earlier and subsequent periods.
4. Royal Bank of Scotland plc is included in the public sector from Q4 2008 but in the private sector for earlier time periods.
5. Network Rail is included in the private sector before Q4 2002. From Q4 2002 onwards it is included in the public sector (except for the period from Q2 2003 to Q1 2004, when it is included in the private sector).
6. Northern Rock is included in the public sector from Q4 2007 until Q4 2011 but in the private sector for earlier and later time periods.
7. Bradford and Bingley is included in the public sector from Q3 2008 but in the private sector for earlier time periods.

8. English further education colleges and English sixth form college corporations classified to the public sector from 1993 to 31 March 2012. They are therefore included in public sector estimates from 1993 to Q1 2012, and to the private sector thereafter.

Methodology

The Private Sector Employment Indicator is an experimental statistic that shows whether, over time, dependency on the private sector for employment is increasing and how this rebalancing varies by region and is published as a series of indices covering the English regions.

Private Sector Employment Indicator Calculation

The Indicator is formulated as follows:

Private sector employment (including employment in major bodies which have moved between private and public sectors) (Aged 16+) *100

Private and public sector employment (Aged 16+) + Unemployment (Aged 16+) + Inactivity (Aged 16-64)

Limitations of the methodology used

Though effort and care have been applied when developing an appropriate indicator, the method has limitations arising from underlying data sources and the definition used:

- Falling public sector employment is one of the factors that may cause a rise in the Indicator, and therefore an increasing Indicator does not necessarily reflect improved labour market conditions in all cases. Users should read the figures for the Indicator together with underlying components. The statistical release will explain the underlying causes for a change in the Indicator, highlighting any caveats.
- Whether a change is significant is determined by the magnitude of the change and the underlying sampling variances. The latter is also affected by the sample size. An area like England tends to have a large sample, leading to a relatively small sample variation compared to regions like North England. So a small change is more likely to be identified as significant compared to a region with a small sample size.

Confidence interval method

Confidence intervals have been produced to allow significant changes in the Indicator to be identified. Normally a 95% confidence interval would be used, which means that in 19 out of 20 different samples we would expect the true (population) level or rate considered to be within the 95% confidence interval for the sample estimate.

Having obtained a 95% confidence interval (CI) for a change in the indicator between two quarters, we can identify a significant difference by checking whether the confidence interval contains zero. A change will be regarded as a significant one if the value zero does not fall in the interval.

As an example, suppose the indicator in the North East increased by 3.5 ppts in Q4 2011 compared to Q4 2010. We can work out the CI at 95% level for the indicator change in the North East region as (0.5ppts, 6.1ppts), where the lower limit = $3.5 - 2.6 = 0.5$ ppts, and the upper limit = $3.5 + 2.6 = 6.1$ ppts. As the CI doesn't contain a zero, the change in the indicator for the region compared to the same quarter a year ago is regarded as significant and shaded accordingly.

For more details, refer to the [user guide](#).

Data sources

Data are published for England and each English region; however, changes in the Indicator are also monitored for two regional groups in England:

- Greater South East (London, South East and East)
- Rest of England (North, Midlands and West)

The two English groups have been selected to minimise the distortions due to high levels of commuting between London, South East and East.

<p>Data sources</p>	<p>The Indicator is compiled from a mix of administrative and survey data. The data time series start from Q1 2008.</p> <p>Public sector employment data are sourced from the administrative data that are used to compile the Public Sector Employment Statistics. Estimates of private sector employment are derived as the difference between Labour Force Survey estimates of employment in the whole economy and the public sector estimates collected from public sector organisations. Both the private sector and public sector employment data are workplace based, providing a consistent basis for calculating the Indicator.</p> <p>Unemployment and inactivity data are sourced from the ONS quarterly Labour Force Survey.</p> <p>To ensure that the data, as closely as possible, covers the same population:</p> <ul style="list-style-type: none"> • Employment and unemployment figures are derived for all aged 16+. • Inactivity is limited to those aged 16 to 64 to exclude people who are over 64 and are inactive. <p>This coverage means that changes in employment, unemployment and inactivity can be affected by migration; movements of 15 year olds into the work force (mainly in education and classified as inactive) and movements of those aged over 64 from employment or unemployment into inactivity.</p> <p>Private sector employment used for this publication includes both part-time and full-time employment and self-employment.</p>
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<p>Reference Period</p>	<p>To ensure the periods to which the data relate are as closely aligned as possible, the data used in this publication align as summarised below and in Table 4.</p> <ul style="list-style-type: none"> Public Sector Employment (PSE) data are used for the months of March, June, September and December. Annual estimates use Quarter 2 estimates in accordance with the producer’s estimates. Labour Force Survey (LFS) estimates for Total Workplace Employment, Unemployment and Inactivity are based on quarterly averages for the periods: February to April; May to July; August to October; and November to January. Annual estimates are based on 4 quarter averages. <p>Table 3: Reference Period of Data Sources</p> <table border="1"> <thead> <tr> <th>Data Source</th> <th>Q1</th> <th>Q2</th> <th>Q3</th> <th>Q4</th> </tr> </thead> <tbody> <tr> <td>LFS</td> <td>Feb-Apr</td> <td>May-July</td> <td>Aug-Oct</td> <td>Nov- Jan (following year)</td> </tr> <tr> <td>PSE</td> <td>March</td> <td>June</td> <td>September</td> <td>December</td> </tr> </tbody> </table>	Data Source	Q1	Q2	Q3	Q4	LFS	Feb-Apr	May-July	Aug-Oct	Nov- Jan (following year)	PSE	March	June	September	December
Data Source	Q1	Q2	Q3	Q4												
LFS	Feb-Apr	May-July	Aug-Oct	Nov- Jan (following year)												
PSE	March	June	September	December												
<p>Limitations of the data used</p>	<p>Public Sector Employment statistics are mainly derived from a census of public sector organisations, so are not subject to sampling errors. However there is a potential small amount of non-response error. The Labour Force Survey is a household survey with sampling errors. Confidence intervals for the Indicators have been provided to enable significant changes to be identified given the methodology used to compile the data and the time period considered.</p> <p>More information on quality of the Public Sector Employment statistics and Labour Force Survey can be found at:</p> <p>http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/labour-market/index.html</p> <p>There are some limitations that should be understood before the data are used.</p> <ul style="list-style-type: none"> Employment and Public Sector Employment data used to derive the Indicator are workplace based, whereas unemployment and inactivity data are residency based. Differences between regional workplace and residency based employment are more pronounced in some regions due to commuting and travel to work patterns. For example, many workers in London reside outside of London, giving rise to a high commuting flow between London and those regions. Due to the different basis (workplace or residence), a loss of jobs in one region may lead to an increase in unemployment in another, as a person might reside in a different region from where they worked. Regional Workplace Employment is derived by ONS from the LFS and directly supplied to BIS each quarter. Private Workplace Employment is derived as the difference between Total Workplace Employment and Public Sector Employment. Workplace based employment excludes those working 															

	<p>outside the UK and some respondents who do not give a workplace address.</p> <ul style="list-style-type: none"> Data can be affected by reclassifications of businesses from the public to the private sector. For example, the Royal Bank of Scotland and Lloyds Banking group were reclassified in October 2008 from the private to the public sector. This gave a small increase in the public sector employment compared to the period prior to the reclassification. These changes caused discontinuities in the time series. When large reclassifications occur these are highlighted in the footnotes accompanying the data.
Alternative data sources available	<ul style="list-style-type: none"> Business Register Employment Survey, which provides annual estimates of regional private and public sector employment. This data are not suitable for regular monitoring as they are only available annually. The Labour Market Statistics release provides quarterly estimates of employment in both the private and the public sectors, but this information is not available for UK countries or English regions.

About this publication

The publication is available through the BIS statistics website and the Publication Hub. Statistical First Releases, data tables and supporting documentation for the Indicator can be found on the BIS website: <https://www.gov.uk/government/collections/private-sector-employment-indicator>

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