



Private Sector Employment Indicator, Quarter 2 2015 (May 2015 to July 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.

BIS review: user survey

BIS is reviewing whether there is an ongoing need for this publication. If you use this publication regularly and would be affected if it were to be discontinued, please [complete this survey](#) to let us know how this might affect you. The survey will close on 20 November 2015.

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 May to July 2015 (Quarter 2 2015):

- 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 62.4%. The indicator increased by 0.1 percentage point from Q1 (February to April 2015) and by 0.9 percentage points from a year earlier;
- Sub-nationally, the indicator for the Greater South East (London, South East and East) stayed constant since Q1 2015 at 64.4%. This was underpinned by an increase in London and East of England (up 0.2 percentage points to 64.2%, and 0.3 percentage points to 64.5% respectively) while the South East recorded a decrease of 0.3 percentage points to 64.8%.
- The indicator for the Rest of England was 60.7%, an increase of 0.2 percentage points from Q1 2015. This increase in the Rest of England is mainly due to increases of 1.2 percentage points in the South West (66.7%) and 0.9 percentage points in the East Midlands (63.3%). These increases were accompanied however, by reductions of 0.9 percentage points in the North East (54.3%) and 0.3 percentage points in the West Midlands (59.1%) since Q1 2015.
- The indicator increased in four and decreased in four of the nine English regions on the previous quarter (Yorkshire & the Humber remained the same), and it was above the Quarter 1 (February – April) 2008 levels in all regions except the South East.

Table 1: Private Sector Employment Indicator, England and English regions, Q2 2015

	Indicator	Quarterly change(ppts)	Annual change(ppts)	Margin of error (95% CI, PPTs)
England	62.4	0.1	0.9	0.29
Greater South East	64.4	0.0	0.3	0.45
Rest of England	60.7	0.2	1.4	0.38
North East	54.3	-0.9	0.1	1.32
North West	59.4	-0.2	1.6	0.79
Yorkshire & the Humber	59.2	0.0	0.5	0.89
East Midlands	63.3	0.9	2.1	0.97
West Midlands	59.1	-0.3	0.6	0.92
East of England	64.5	0.3	0.5	0.85
London	64.2	0.2	0.5	0.72
South East	64.8	-0.3	0.0	0.75
South West	66.7	1.2	2.7	0.89

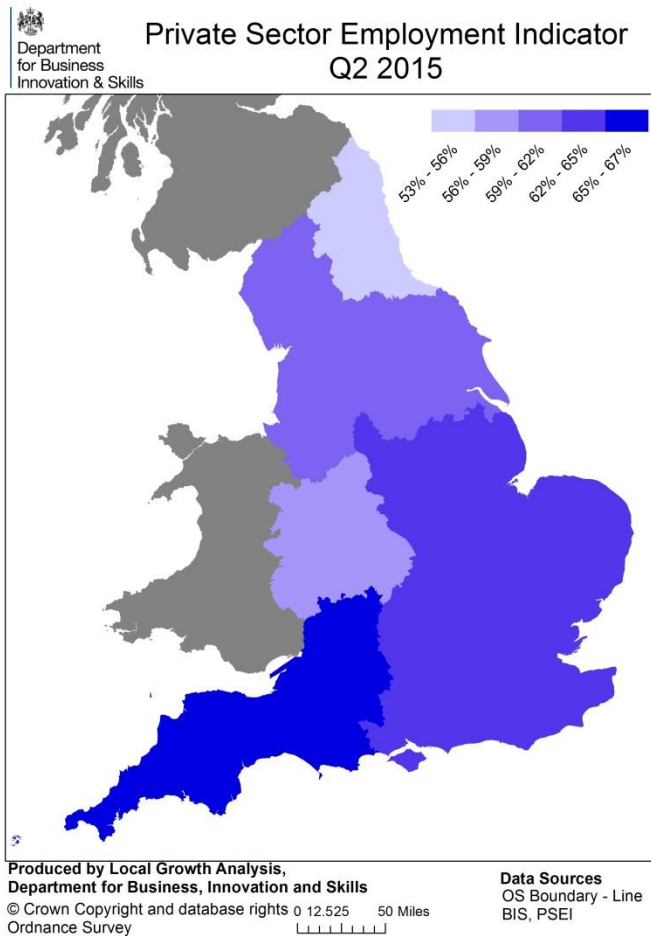
Source : BIS, Private Sector Employment Indicator

Notes

1. Since yearly data remove seasonal effect, in Table 1, the significant changes (which are applied to annual changes only) are based on a 95% confidence level on non-seasonally adjusted data. Significant changes are highlighted in bold and are based on a 95% confidence level. Significance is determined by comparing the percentage point change (PPT) to the margin of error (which is equal to the half of the confidence interval). If the PPT change is larger than the margin of error, we can be 95% confident that the range of possible values for the indicator does not include zero. This leads us to conclude that the change observed is larger than we could expect from random variation alone, and is therefore statistically significant.
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.

Figure 1: Private Sector Employment Indicator (non-seasonally adjusted), English regions, Quarter 2 2015



Source: BIS, Private Sector Employment Indicator, non-seasonally adjusted

3. England and Sub-National Indicator

From Quarter 1 2015 to Quarter 2 2015, the indicator increased in five out of the nine English regions. The largest increases were in the South West (1.2 percentage points) and East Midlands (0.9 percentage points). The North East experienced the largest decrease of the areas (-0.9 percentage points).

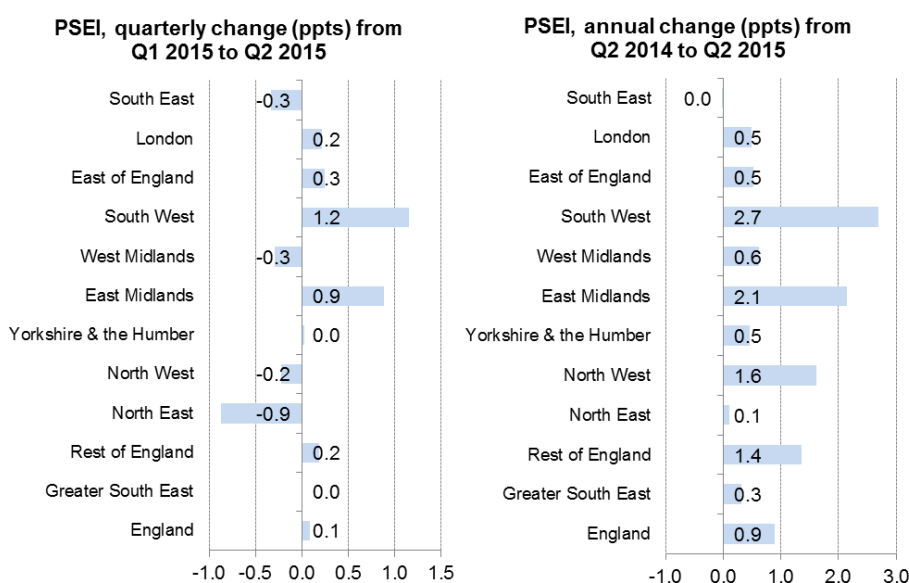
Between Quarter 2 2014 and Quarter 2 2015, the Indicator increased in eight of the nine English regions. The largest increases were in the South West (2.7 percentage points) and East Midlands (2.1 percentage points). The Indicator reached or surpassed the Quarter 1 2008 Indicator level all English regions with the exception of the South East.

Comparing the Indicator for the regions within the Greater South East (London, South East and East), London has almost 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. In Q4 2014, London surpassed the East momentarily, but most recently has returned to just below the East.

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. However, these figures show that the gap has increased this quarter, with the largest increase in the South West and the largest decrease in the North East. 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.

The difference between the Greater South East and Rest of England indicator fell for the fourth consecutive quarter to 3.7 percentage points (the smallest the gap has been in the since reporting began in 2008).

Figure 2: Private Sector Employment Indicator Quarterly and Annual Changes, England and English regions, Quarter 2 2015, seasonally adjusted

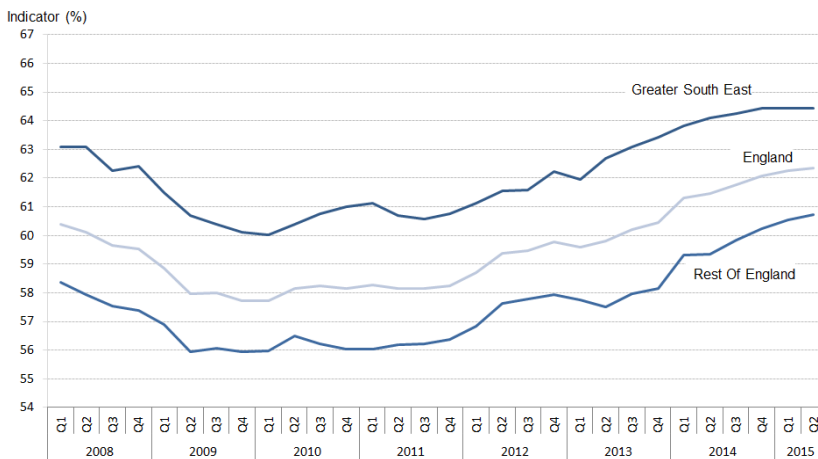


Source: BIS, Private Sector Employment Indicator

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.

Figure 3: Private Sector Employment Indicator, England, Greater South East and Rest of England, Quarter 1 2008 to Quarter 2 2015, seasonally adjusted

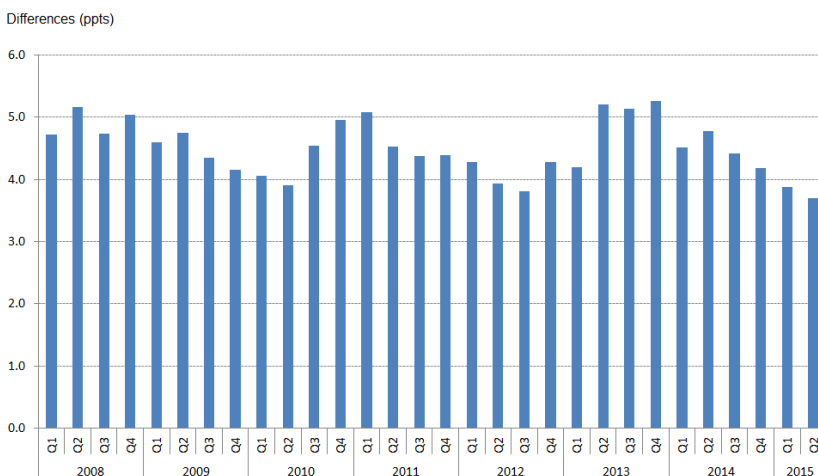


Source: BIS, Private Sector Employment Indicator

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 4: Private Sector Employment Indicator, differences between Greater South East and Rest of England, Quarter 1 2008 to Quarter 2 2015, 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. Analysis of components of national (non-seasonally adjusted) indicator

The Indicator in England increased by 0.9 percentage points on the same quarter a year ago, to 62.4%. This increase was a result of rising private sector employment (+428 thousand), declining public sector employment (-27 thousand), unemployment (-188 thousand) and inactivity (-23 thousand). The number of people in private sector employment reached an estimated 21.8 million, the highest recorded level of employment since the series for England began in 2008.

The Indicator for England was up 0.2 percentage points on the previous quarter. Private sector employment increased by five thousand, while public sector employment was 20 thousand lower than the previous quarter.

The Indicator for the Greater South East reached 64.5%, a rise of 1.4 percentage points on the same quarter a year ago and an increase of 0.2 percentage points from a quarter earlier. There were an estimated 11.7 million people employed in the Greater South East, of which the private sector employed 9.9 million. Since Q2 2014, employment in the private sector rose by 59 thousand and in the public sector fell by 2 thousand. Over the same period, unemployment and inactivity fell by 23 thousand and 12 thousand, respectively.

The Indicator for the Rest of England increased to 60.6%, an increase of 1.4 percentage points on the same period a year ago, and of 0.3 percentage points on the previous quarter. Employment in the Rest of England stood at 14.3 million for Quarter 2 2015, of which the private sector employed an estimated 11.9 million people. Since Q2 2014, private sector employment rose (+358 thousand) whilst public sector employment declined (-30 thousand). Over the same period unemployment fell (-165 thousand) and inactivity fell (-8 thousand).

5. Economic Context in Quarter 2 2015

This section provides contextual information on economic performance over Quarter 2 2015 (April 2015 to June 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 0.7% between Q1 2015 and Q2 2015, unrevised from the previous estimate of GDP published 28 August 2015. GDP in current prices was estimated to have increased by 1.2% between Q1 2015 and Q2 2015. Between Q2 2014 and Q2 2015, GDP in volume terms increased by 2.4%, revised down 0.2 percentage points from the previously published estimate.³

The Consumer Prices Index (CPI) was unchanged in the year to August 2015, that is, a 12-month rate of 0.0%, down from 0.1% in the year to July 2015. A smaller rise in clothing prices on the month compared with a year ago was the main contributor to the slight fall in

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

the rate. There were also downward effects from changes in motor fuel prices and sea fares.⁴

Comparing the estimates for the three months ending July 2015 with those for February to April 2015, employment continued to rise and unemployment remained the same. The increase in employment maintains the general direction of movement since late 2011/early 2012. The proportion of the economically active population who were unemployed (the unemployment rate) was 5.5%, unchanged compared with February to April 2015 but lower than for a year earlier (6.1%). The proportion of people aged from 16 to 64 who were economically inactive (the inactivity rate) was 22.1%, little changed compared with February to April 2015 but down slightly from a year earlier.⁵

Continuing a sustained period of year-on-year growth, retail sales in January 2015 were estimated to have increased by 3.7% compared with August 2014. This is the 29th 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 August 2015, the amount spent in the retail industry increased by 0.2% compared with August 2014 and fell by 0.3% compared with July 2015. Non-seasonally adjusted data show that the average weekly spend in the retail industry in August 2015 was £6.9 billion, compared with £7.1 billion in July 2015 and £6.9 billion in August 2014.⁶

Total production output is estimated to have increased by 0.8% in July 2015 compared with July 2014. There were increases in two of the four main sectors, with mining and quarrying output being the largest contributor, increasing by 6.7%. In the three months to January 2015, production and manufacturing were 9.3% and 5.2% respectively below their figures reached in the pre-downturn GDP peak in Q1 2008.⁷

In July 2015, output in the construction industry decreased by 1.0% compared with June 2015, after increasing by 0.9% in June. New orders for the construction industry in Q2 2015 were estimated to have decreased by 0.4% compared with Q1 2015 and increased by 1.9% compared with Q2 2014. There were decreases in private commercial (-12.0%), public other new work (-10.7%) and private new housing (-3.3%) in Quarter 2 (Apr to June) 2015.⁸

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

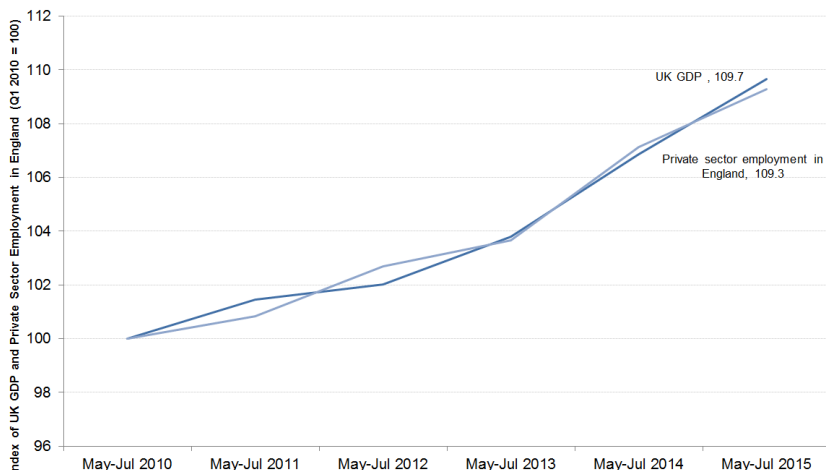
⁵ <http://www.ons.gov.uk/ons/rel/lms/labour-market-statistics/march-2015/index.html>

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>

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

Figure 5: Index showing growth the Private Sector Employment in England and real growth in UK Gross Domestic Product, Quarter 2 2010 to Quarter 2 2015

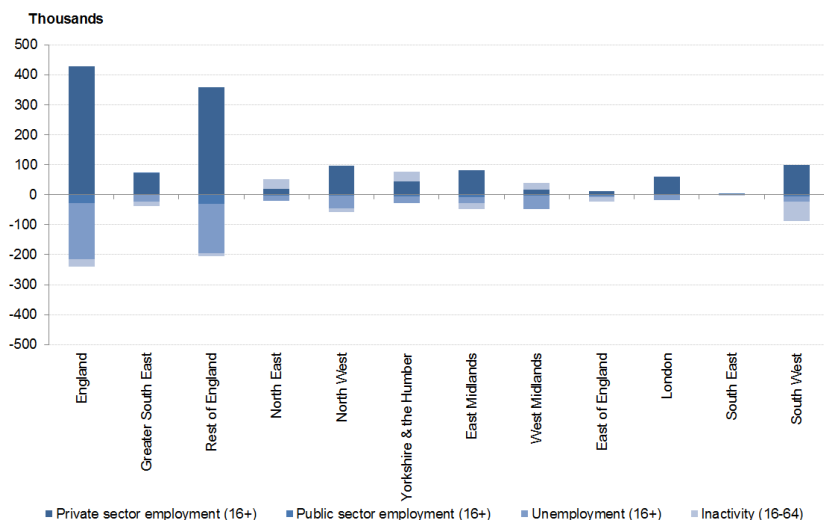


Sources: Quarterly ABMI GDP series, ONS and Private Sector Employment Indicator, BIS

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.

Figure 6: Annual Changes in Employment, Unemployment and Inactivity by regions, Quarter 2 2015, 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 2 2015, thousands

Private Sector Employment Indicator	Thousands, Non-seasonally adjusted															
	Private sector employment (16+)				Public sector employment (16+)		Unemployment (16+)		Inactivity (16-64)		Total					
	Share%	95% CI (PPTs)	Change ¹ (PPTs)	Margin of error (95% CI, PPTs)	Level	Change ¹	Margin of error (95% CI)	Level	Change ¹	Level	Change ¹	Level	Change ¹	Level	Change ¹	
England	62.3	0.41	0.9	0.29	21,831	428,309	100,944	4,204	-27	1,527	-188	7,491	-23	35,052	189	
London, South East & East (GSE)	64.5	0.63	0.3	0.45	9,943	70,583	68,548	1,727	2	647	-23	3,099	-15	15,416	35	
Rest of England (NWM)	60.5	0.53	1.4	0.38	11,888	357,726	74,112	2,477	-30	880	-166	4,391	-8	19,636	154	
North East	53.7	1.93	0.1	1.32	892	18,473	21,795	230	-4	111	-17	427	34	1,661	31	
North West	59.4	1.13	1.6	0.79	2,739	96,073	36,395	588	-3	198	-43	1,090	-12	4,614	37	
Yorkshire & the Humber	59.1	1.27	0.5	0.89	2,058	44,994	30,686	457	-4	176	-24	789	33	3,480	50	
East Midlands	63.1	1.33	2.1	0.97	1,809	81,890	27,588	330	-8	113	-20	613	-21	2,865	33	
West Midlands	58.7	1.34	0.6	0.92	2,116	17,617	33,182	440	-4	162	-44	885	22	3,604	-9	
East of England	64.5	1.18	0.5	0.85	2,285	11,551	30,249	406	-3	148	-4	701	-15	3,539	-11	
London	64.1	1.02	0.5	0.72	4,131	59,107	46,237	699	1	296	-18	1,323	2	6,449	44	
South East	65.0	1.04	0.0	0.75	3,527	-75	40,469	622	4	203	-0	1,075	-2	5,427	2	
South West	66.6	1.15	2.7	0.89	2,275	98,679	30,156	431	-6	119	-18	588	-64	3,413	11	

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. Significance is determined by comparing the percentage point change (PPT) to the margin of error (which is equal to the half of the confidence interval). If the PPT change is larger than the margin of error, we can be 95% confident that the range of possible values for the indicator does not include zero. This leads us to conclude that the change observed is larger than we could expect from random variation alone, and is therefore statistically significant.
- 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 – Q1 2008 to Q2 2015

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. Upward trends continued between Q2 2014 and Q2 2015 for all areas except the South East, which experienced a very slight decline of 0.03% during this period.

The following gives a brief overview of the series from Quarter 1 2010 to Quarter 2 2015. All the comparisons are based on quarterly, seasonally adjusted changes.

England – The indicator experienced negative growth in England between Q1 2008 and Q3 2009. Since Q2 2010 however, the indicator has experienced positive growth in all but four quarters (Q4 2010: -0.1 percentage points; Q2 2011: -0.1 percentage points; Q3 2011: -0.01 percentage points; Q1 2013: -0.2 percentage points). The highest period of growth was Q1 2014 in which the indicator increased by 0.9 percentage points. Most recently growth has been positive, but has slowed (from 0.3 percentage points in Q3 2014 to 0.1 percentage points in Q2 2015). The indicator has now increased for the last nine consecutive quarters across England.

Greater South East – The indicator decreased in the Greater South East (GSE) during all but one quarter between Q3 2008 and Q2 2010 (it increased in Q4 2009 by 0.1 percentage points). Since Q3 2010 the indicator has experienced positive growth in all except four quarters (Q2 2011: -0.4 percentage points; Q3 2011: -0.1 percentage points; Q3 2012: -0.03 percentage points; Q1 2013: -0.3 percentage points). The indicator has experienced positive growth for nine consecutive quarters.

All constituent areas within the GSE experienced negative growth between Q4 2008 and Q4 2009. More recently, all areas have experienced growth in all but one quarter each between Q2 2013 and Q2 2015. East of England has experienced growth in the indicator for six consecutive quarters, while London experienced negative growth last quarter (Q1 2015: -0.2 percentage points) and South East experienced negative growth this quarter (Q2 2015: -0.3 percentage points).

Rest of England – The indicator generally decreased between Q2 2008 and Q3 2011 across the Rest of England area, with the exception of Q3 2009 (+0.1 percentage points), Q2 2010 (+0.6 percentage points) and Q2 2011 (+0.3 percentage points). More recently the indicator has experienced growth in every quarter since Q3 2013, with the exception of Q2 2014 (-0.01 percentage points).

Most recently, the East Midlands has seen the most consistent increases in the indicator of the constituent areas; it has experienced six consecutive quarters of growth, three of which ranged between 0.7 and 1.2 percentage points. The North East is the only region to have experienced negative growth for the last two consecutive quarters (Q1 2015: -0.4 percentage points; Q2 2015: -0.9 percentage points).

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.

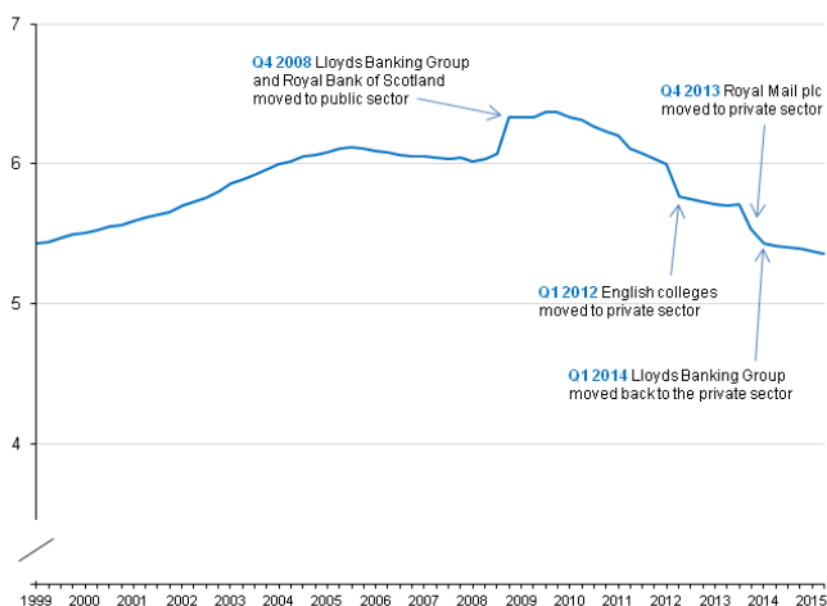
Latest revisions

Public sector employment statistics have previously been published for all periods from 1999 up to and including Q1 2015. 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 1 2015 Indicator (the most recent Indicator published by BIS prior to this publication) is a decrease of less than 0.1 percentage points. The effect of the revision on each individual region is less than 0.1 percentage point.

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: Total UK public sector employment, Q1 1999 to Q2 2015, 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:

$$\frac{\text{Private sector employment (including employment in major bodies which have moved between private and public sectors) (Aged 16+) *100}}{\text{Private and public sector employment (Aged 16+) + Unemployment (Aged 16+) + Inactivity (Aged 16-64)}}$$

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 = $3.5 - 2.6 = 0.5\text{ppts}$, and the upper limit = $3.5 + 2.6 = 6.1\text{ppts}$. 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</p>
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	<p>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>															
<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" data-bbox="335 918 1532 1153"> <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
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<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, 															

	<p>as a person might reside in a different region from where they worked.</p> <ul style="list-style-type: none"> • 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 outside the UK and some respondents who do not give a workplace address. • 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.
<p>Alternative data sources available</p>	<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.

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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