

Statistical bulletin

# UK business register and employment survey (BRES): provisional results 2016, revised results 2015

The Business Register and Employment Survey (BRES) is The official source of employee and employment estimates by detailed geography and industry.



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Next release:
To be announced

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### 1. Main points

- The number of employees in the UK increased by 540,000 (1.8%) between 2015 and 2016, from 29.5 million to 30.0 million.
- Between 2015 and 2016, the total number of employees increased in all regions except the North East, which decreased by 23,000 (2.2%); the strongest growth was in London (up 99,000, 2%) and the East of England (up 85,000, 3.2%).
- Between 2015 and 2016, the largest increase in employees has been in the professional, scientific and technical industry (up 115,000, 4.7%), closely followed by accommodation and food services (up 99,000, 4.7%); the largest percentage increase between 2015 and 2016 was for transport and storage including postal (up 6.7%).
- In Great Britain in the year to September 2016, the professional, scientific and technical industry has shown particularly strong growth in the total number of employees (up 113,000), accounting for 21% of the total Great Britain increase in employees.
- Between 2015 and 2016, in Great Britain, the total number of employees decreased for the following industries: retail (down 62,000, 2.2%), agriculture, forestry and fishing (down 3,000, 1.4%), education (down 10,000, 0.4%), property (down 3,000, 0.6%) and public administration (down 3,000, 0.2%).
- Between 2015 and 2016 for Great Britain, the number of public sector employees decreased in 53% of local authority districts; in contrast, 79% of local authority districts saw an increase in the number of private sector employees over the same period.

## 2. Things you need to know about this release

The Business Register and Employment Survey (BRES) is the official source of employee and employment estimates by detailed geography and industry. It is also used to update structural information on the Inter-Departmental Business Register, the main sampling frame for business surveys used to produce UK official statistics.

This statistical bulletin focuses on the strengths of BRES, giving employee estimates by region level and below and by broad industry group and below. There is also a section that looks at public and private sector estimates of employees. In 2015, Office for National Statistics (ONS) made a strategic decision to include business units with a single Pay As You Earn (PAYE) code for which no Value Added Tax (VAT) data are available. Prior to 2015, such units were excluded from the sampling frame and therefore not estimated for in ONS outputs. A section of this bulletin addresses the industrial and regional impact on employment estimates from the inclusion of these units.

The survey collects employment information from businesses across the whole of the Great Britain economy for each site that they operate. The Department of Finance and Personnel Northern Ireland (DFPNI), collects the same BRES information independently in Northern Ireland. Both data sources are then combined to produce estimates on a UK basis. This allows us to produce UK workplace-based employee and employment estimates by detailed geography and industry, full-time or part-time workers and whether the business is in the public or the private sector.

Due to the survey's large sample size (approximately 80,000 businesses), BRES is able to produce good quality estimates for detailed breakdowns by industry and geography. Indeed, no other ONS survey of regional and subregional employment data can provide the same level of industry detail. Furthermore, being a business survey, the quality of this industry data is very good and is recommended in preference to industry data from household surveys such as the Annual Population Survey. BRES provides both employee and employment data and is particularly recommended for analysis of employee data. All analysis in this bulletin is for data on employees.

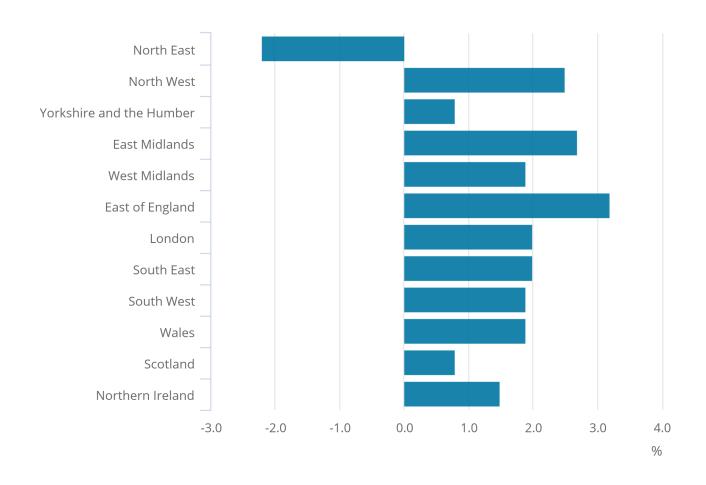
The employment data in BRES is the number of employees added to the number of working owners (for example, sole proprietors and partners). However, BRES does not cover the very small businesses neither registered for VAT nor PAYE, which make up a small part of the economy. As a result there is a difference between the BRES UK estimate of employment and the estimate from the ONS workforce jobs series. So for total employment figures, other ONS sources such as workforce jobs (regional) and the Annual Population Survey (sub-regional) can provide fuller coverage of total employment, albeit with a less detailed industrial breakdown.

Since BRES is based on a sample of businesses, it can be affected by sampling variability. In particular, the quality of the estimates may deteriorate for smaller geographies and this should be taken into account when making inferences about the figures. Quality measures accompany the BRES datasets on our website.

### 3. Regional estimates

Figure 1 shows the percentage change in the number of employees between 2015 and 2016 by region. Between 2015 and 2016, only the North East saw a percentage decrease in the number of employees (down 2.2%). The East of England (up 3.2%), East Midlands (up 2.7%) and North West (up 2.5%) saw the largest percentage increases in total employees.

Figure 1: Percentage change in employees by region, 2015 to 2016, UK



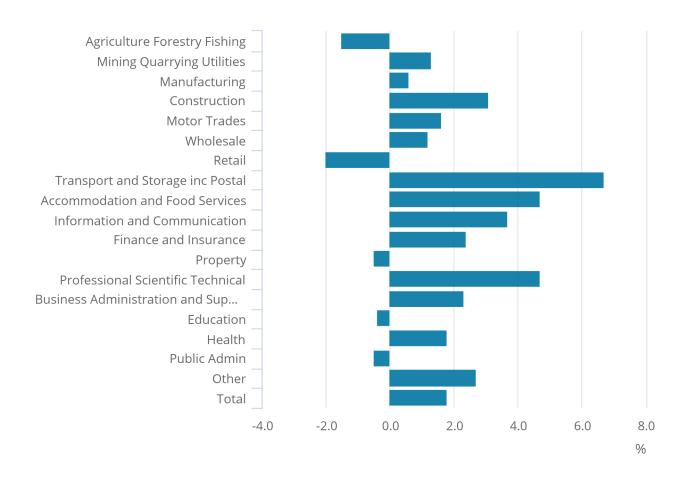
Source: Business Register Employment Survey (BRES), Office for National Statistics

### 4. Results by broad industry group

Figure 2 shows the percentage change in employees by broad industry group between 2015 and 2016 for the UK.

Between 2015 and 2016, there were percentage increases in all but five sectors. The largest percentage increases were in transport and storage including postal (up 6.7%), accommodation and food services (up 4.7%) and professional, scientific and technical (up 4.7%). Between 2015 and 2016, the retail sector saw the largest percentage decrease (down 2.0%). There were also decreases in agriculture, forestry and fishing (down 1.5%), the property sector (down 0.5%), public administration (down 0.5%) and the education sector (down 0.4%).

Figure 2: Percentage change in employees by broad industry group, 2015 to 2016, UK

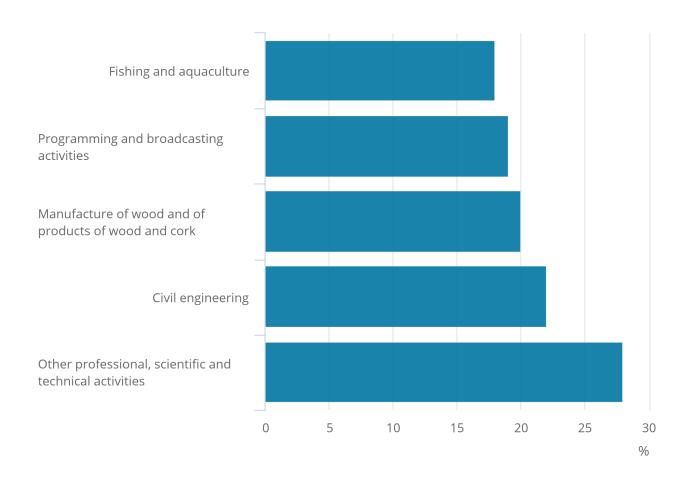


Source: Business Register Employment Survey (BRES), Office for National Statistics

The rest of this section looks at these industries in more detail. Figure 3a shows the five divisions with the largest percentage increases in employees between 2015 and 2016. Figure 3b shows the five divisions with the largest falls over this period.

Between 2015 and 2016, the following divisions saw a percentage increase that exceeded 20%: other professional, scientific and technical activities, civil engineering, and manufacture of wood and of products of wood and cork.

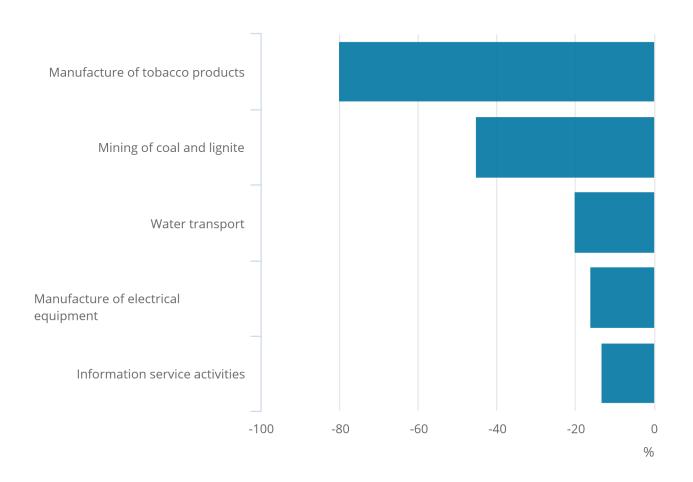
Figure 3a: Largest increases in employees by industry divisions between 2015 and 2016, Great Britain



Source: Business Register Employment Survey (BRES), Office for National Statistics

In the year to September 2016, the top five percentage decreases all exceeded 10%. The largest percentage decrease was in the manufacture of tobacco products, which decreased by 80%.

Figure 3b: Largest decreases in employees by industry divisions between 2015 and 2016, Great Britain



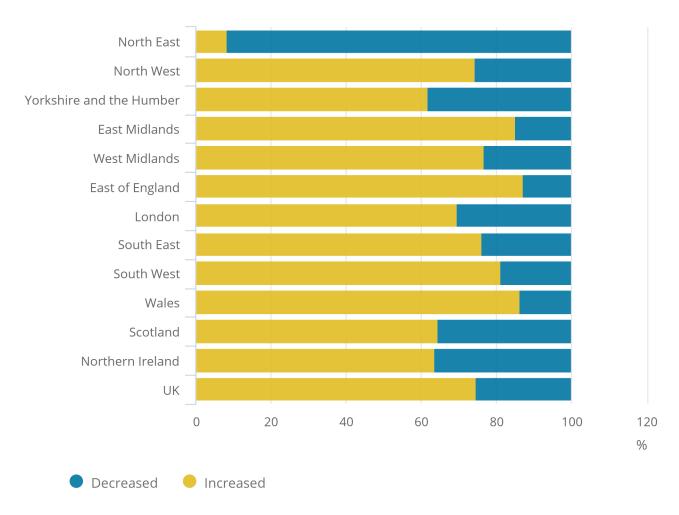
Source: Business Register Employment Survey (BRES), Office for National Statistics

### 5. Sub-regional estimates

The analysis in this section focuses on changes in employees at a local authority (LA) district level. Although regional estimates show interesting patterns and shifts over time, they can mask some of the sub-regional variation in the geographical distribution of employees. For example, strong growth in the East of England in the number of employees between 2015 and 2016 has been driven by growth across many LAs including Welwyn Hatfield, Central Bedfordshire and Luton, whereas growth seen in the North West region has been driven by Manchester.

Figure 4: Percentage of local authority districts that have seen an increase or decrease in the number of employees between 2015 and 2016, UK

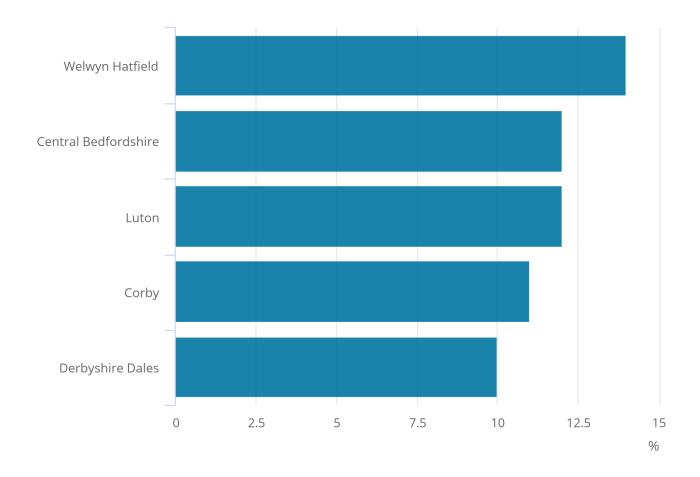
Figure 4: Percentage of local authority districts that have seen an increase or decrease in the number of employees between 2015 and 2016, UK



Source: Business Register Employment Survey (BRES), Office for National Statistics

Since the overall regional growth can be greatly affected by the growth in a small number of LAs, Figure 4 looks at the percentage of LAs within a region that have shown an increase or a decrease in the number of employees. This needs to be compared with Figure 1 to give an indication of how well the growth is spread across all LAs within the region. The East of England, East Midlands and Wales are the regions with the highest proportion of LAs that show an increase in the number of employees in the year to September 2016.

Figure 5a: Local authorities showing the five biggest percentage increases in employees between 2015 and 2016, Great Britain

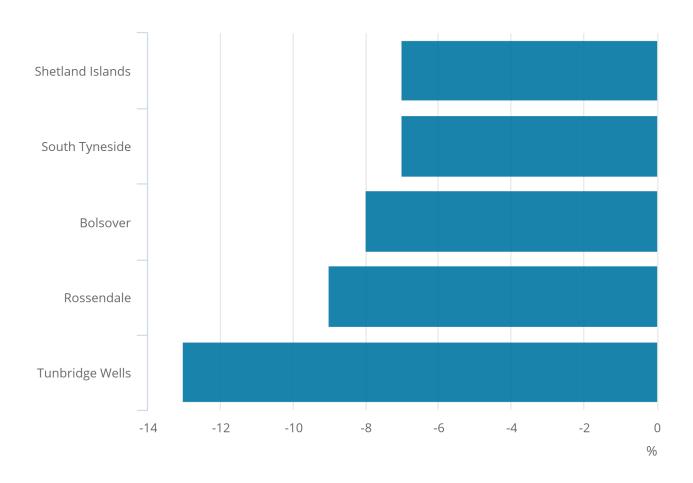


Source: Business Register Employment Survey (BRES), Office for National Statistics

Local authorities with known data distortions have been excluded from the list.

Figure 5b: Local authorities showing the five biggest percentage decreases in employees between 2015 and 2016, Great Britain

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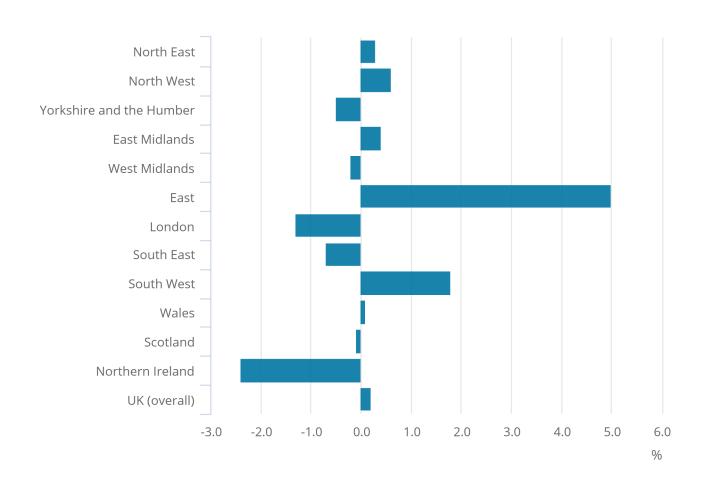
Source: Business Register Employment Survey (BRES), Office for National Statistics

Figure 5a shows that the largest increase in employees was seen in Bromsgrove (West Midlands) (27.9%), while Figure 5b shows that the largest decrease was seen in Tunbridge Wells (South East) (13.3%).

## 6. Public and private sector estimates

Figures 6 and 7 show the movements in public and private sector employees by region between 2015 and 2016 respectively.

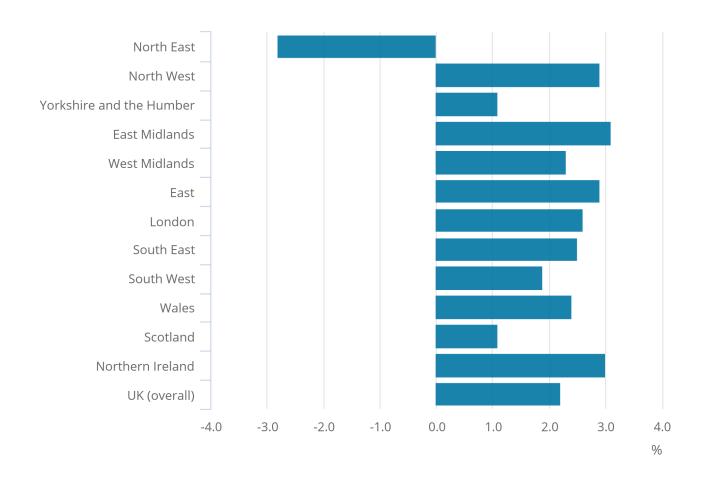
Figure 6: Percentage change in employees by region for the public sector, 2015 to 2016, UK



Source: Business Register Employment Survey (BRES), Office for National Statistics

Out of the 12 UK government regions, six saw an increase in the number of public sector employees and six saw a decrease. Increases were largest in the East of England (up 5%) and the South West (up 1.8%). The largest decreases in public sector employees were in Northern Ireland (down 2.4%) and London (down 1.3%). Overall there was a small increase in public sector employees by 0.2%.

Figure 7: Percentage change in employees by region for the private sector, 2015 to 2016, UK



Source: Business Register Employment Survey (BRES), Office for National Statistics

All regions except the North East saw a percentage increase in private sector employees between 2015 and 2016, largest increases were for East Midlands (up 3.1%), Northern Ireland (up 3.0%) and East of England (up 2.9%).

# 7. Impact of additional PAYE units

This note explains the changes to the Business Register and Employment Survey (BRES) data from 2015 onwards, released by Office for National Statistics (ONS) on 2 October 2017.

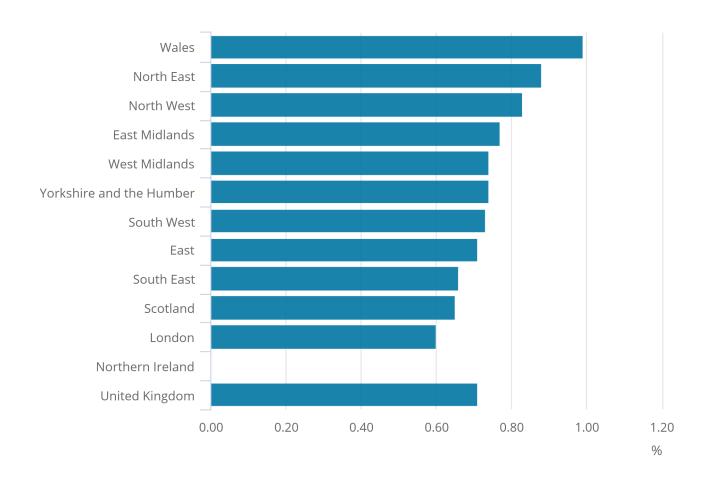
From 1 January 2016, the coverage of the ONS Standard Business Survey Population was extended to include a population of solely Pay As You Earn (PAYE)-based businesses. Further details on this change are available.

This improvement in coverage is estimated to have increased the business survey population by around 100,000 businesses, with a total of around 300,000 employment and 200,000 employees between December 2015 and January 2016. The increase in business population has led to an increase in the estimate of the number of employment and employees.

Figure 8 outlines the differences caused by this change split by region between the 2015 provisional and revised datasets.

Figure 8: Percentage change in employees from inclusion of additional PAYE only units by region, 2015, UK

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Source: Business Register Employment Survey (BRES), Office for National Statistics

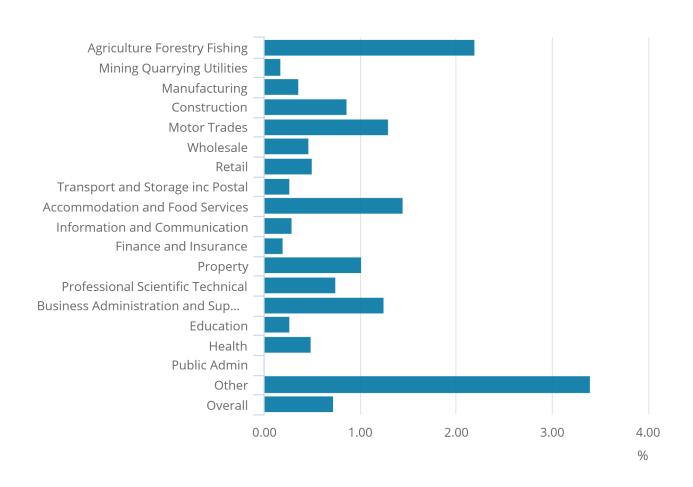
Source: Business Register Employment Survey (BRES), Office for National Statistics

Inclusion of the PAYE units had the greatest impact on the total employee estimates for Wales (up 1%), North East (up 0.9%) and North West (up 0.8%). However, the overall impact that including the PAYE units had on BRES total employee estimates is minimal (0.7%). There is no impact upon Northern Ireland figures.

Figure 9 outlines the differences caused by this change split by broad industry group between the 2015 provisional and revised datasets.

Figure 9: Percentage change in employees from inclusion of additional PAYE only units by broad industry group, 2015, Great Britain

Figure 9: Percentage change in employees from inclusion of additional PAYE only units by broad industry group, 2015, Great Britain



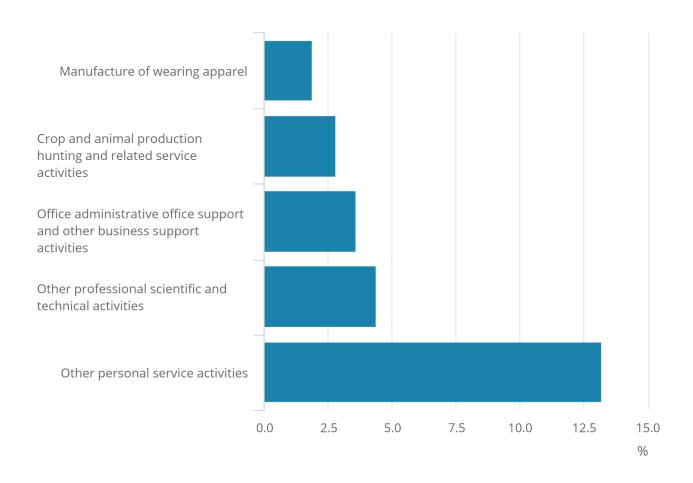
Source: Business Register Employment Survey (BRES), Office for National Statistics

Source: Business Register Employment Survey (BRES), Office for National Statistics

Inclusion of the PAYE units had the greatest impact on the total employee estimates for the industry group classed as "other". This is driven by division 96, other personal service activities, which increased by 13.2%. Figure 10 shows the five industrial divisions with the largest increases as a result of the additional PAYE units.

Figure 10: Percentage change in employees from inclusion of additional PAYE only units by industrial division, 2015, Great Britain

Figure 10: Percentage change in employees from inclusion of additional PAYE only units by industrial division, 2015, Great Britain



Source: Business Register Employment Survey (BRES), Office for National Statistics

# 8. Quality and methodology

- 1. To support this release datasets providing greater geographical and industrial detail are available.
- 2. Estimates presented in this release and associated datasets are rounded to prevent disclosure. Differences may exist in totals across tables due to rounding of estimates and disclosure methods used.
- 3. For 2016, employee job numbers are estimated as at 9 September.

4. From January 2016, the coverage of the Office for National Statistics (ONS) Standard Business Survey Population was extended to include a population of solely Pay As You Earn (PAYE)-based businesses. Further details on this change are available.

This improvement in coverage is estimated to have increased the business survey population by around 100,000 businesses, with a total of around 300,000 employment and 200,000 employees between December 2015 and January 2016. The increase in business population has led to an increase in the estimate of employment and employees for the 2015 dataset. The level of the revision, with regional and industrial breakdowns, can be found in the statistical bulletin. This increase in coverage makes comparisons of figures prior to 2015 with figures from 2015 onwards more difficult, since the employment estimates prior to 2015 do not include PAYE-only businesses.

- 5. Sub-regional estimates are based on the county and district geography boundaries at the time the survey sample was selected (August 2016).
- 6. Although this bulletin focuses on employees, BRES collects information on employees and employment (employees plus working owners). BRES therefore includes self-employed workers (within the employment estimates) as long as they are registered for VAT or Pay As You Earn (PAYE) schemes. Self-employed people who are not registered for these, along with HM armed forces and government-supported trainees are not included.
- 7. Employee jobs are allocated to the area in which the businesses completing the survey questionnaire say the employee works. Therefore, geographic estimates are on a workplace basis and do not reflect where the person lives. Jobs at local hospitals, for example, may be situated in one local authority while the employees or people may reside in another.
- 8. The public sector comprises central government, local government and public corporations. The private sector comprises companies, sole proprietors, partnerships and non-profit bodies.
- 9. An employee is defined as anyone aged 16 years or over that is paid directly from the payroll, in return for carrying out a full-time or part-time job or being on a training scheme. Employment includes employees plus the number of working owners who receive drawings or a share of the profits. Full-time is defined as working more than 30 hours per week with part-time defined as working 30 hours or less per week.
- 10. Farm agriculture data are either provided or taken from existing publications by the Department for Environment, Food and Rural Affairs, the Scottish Government, the Welsh Government and the Department for Agriculture and Rural Development Northern Ireland. These figures are not available for all sub-regions so for consistency they have not been included in estimates below region level. The figures have only been included at a two-digit Standard Industrial Classification (SIC) level and above. Where employment in farm agriculture has been included in estimates it has been included within the private sector.
- 11. Alternative employment estimates are available from the Labour Force Survey (LFS) and workforce jobs (WFJ). BRES is the primary source for employee estimates at a detailed regional and industrial level. Workforce jobs benchmarks the private sector employee component to the BRES private sector employee estimates on an annual basis. The WFJ series, which is compiled mainly from surveys of businesses, is the preferred source of statistics when comparing changes in employment over time. The LFS, which collects information mainly from residents of private households, is the preferred source of statistics on employment at the whole economy level. The concept of employment (measured by the LFS as the number of people working at least one hour during the survey reference week) differs from the concept of jobs, since a person can have more than one job, and some jobs may be shared by more than one person. The LFS can also be used to produce estimates of the total number of jobs in the UK, by adding together the headline employment figures (which are equivalent to main jobs) and those for workers with a second job.
- 12. The public sector employee job figures from BRES aggregated to regional or national level will not match those produced from the Public sector employment release, which is the recommended source for public sector employment figures.

- 13. On 31 May 2012, we announced the reclassification of English further education corporations and sixth form colleges to the private sector, as non-profit institutions serving households, effective from 1 April 2012. As such, employee estimates for English further education colleges and sixth form college corporations are included in our estimates of public sector employment for 2011 and earlier years. From 2012 onwards, English further education corporations and English sixth form college employment estimates were included in the private sector. Welsh further education colleges were reclassified to the private sector in early 2015.
- 14. A further breakdown of the number of employees, by region and industry, is provided on the Nomis website. Employee estimates from BRES can only be viewed on Nomis by applying for access, details of which can be found on the Nomis website.
- 15. Figures are classified to the <u>2007 revision to the Standard Industrial Classification</u> (SIC). BRES includes breakdowns by public and private sector according to the legal status of employees for national accounts classification purposes.
- 16. We apply statistical methods to the survey returns to ensure that the estimates derived are as representative of the population as possible. Nevertheless, there is still some error associated with these estimates and we measure this by calculating coefficients of variation, which are defined as the ratio of the standard error of an estimate to the estimate itself.

For example, an estimate with a CV of 5% will have a standard error that is 5% of the estimate. The smaller the coefficient of variation, the greater the accuracy of the estimate. CVs that are greater than or equal to 20% should be used with caution.

CVs are provided within the published tables that accompany this release.

17. BRES is a sample survey. For the 2016 survey period, approximately 80,000 businesses were sampled for Great Britain. Further details of the sample design can be found in the BRES QMI to be updated by the end of the year. The response rate for the 2016 BRES was 83%. Northern Ireland data was collected independently by the Northern Ireland Statistics and Research Agency.

The BRES Quality and Methodology Information report contains important information on:

- · the strengths and limitations of the data and how it compares with related data
- uses and users of the data
- how the output was created
- the quality of the output including the accuracy of the data