



BUSINESS POPULATION ESTIMATES FOR THE UK AND REGIONS, 2012

METHODOLOGY & QUALITY NOTE

**PUBLISHED BY THE ENTERPRISE DIRECTORATE OF THE DEPARTMENT FOR
BUSINESS, INNOVATION AND SKILLS (BIS)**

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Introduction

1. *Business Population Estimates for the UK and Regions* (hereafter referred to as *BPE*) is produced by the Department for Business, Innovation and Skills (BIS). It is a continuation of the *Small and Medium Enterprise (SME) Statistics for the UK and Regions* series, but uses a revised methodology to improve the quality of estimates of the number of businesses. The publication name was changed to alert users to the fact that the two series should be used independently.

2. The *BPE 2010* publication issued on 24 May 2011 was the first release based on this improved methodology. The *BPE 2011* publication (released on 12 October 2011) incorporated a further improvement to the methodology (see 'Improvements to methodology' on page 24 for more information). The methodology used for this edition is unchanged from *BPE 2011*.

3. There is no single database in the UK which contains details of every active business. This publication takes data from the 2.1 million businesses on the government business register, the Inter-Departmental Business Register (the IDBR)¹, which contains all businesses operating VAT and/or PAYE schemes, and then estimates how many very small *unregistered* businesses there are to estimate the total business population for the UK.

4. This publication, therefore, is the only official source for data on the number of businesses and their associated employment and turnover, for the entire UK business population, at a particular point in time.

5. *Business Population Estimates for the UK and Regions* is a National Statistics publication. National Statistics are produced to high professional standards set out in the *Code of Practice for Official Statistics*. Further information on National Statistics can be found on the United Kingdom Statistics Authority (UKSA) [website](#).

6. These statistics were [assessed](#) for compliance against the *Code of Practice for Official Statistics* by the UKSA during 2011-12 and in October 2012 their National Statistics designation was [confirmed](#).

7. The United Kingdom Statistics Authority designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics. Designation can be broadly interpreted to mean that the statistics: meet identified user needs; are well explained and readily accessible; are produced according to sound methods, and are managed impartially and objectively in the public interest. Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed.

8. In line with *Principle 4: sound methods and assured quality* and *Principle 8: Frankness and Accessibility* from the *Code of Practice for Official Statistics* this document provides guidance for users on methods used and the quality of the publication. It describes how to interpret the data in the *BPE* publication, and how it differs from the previous *SME statistics* series and other data published by the government on the UK business population.

¹ For more details, see Annex B

9. The [BPE](#) publications for 2010-2012 and [SME Statistics](#) publications for 1994-2009 are available from the BIS website. For further information or to give feedback on the *BPE* publication please contact us via email at enterprise.statistics@bis.gsi.gov.uk.

Section 1 - Definitions and Coverage

Definitions used in this publication

Business

10. A *business* may be VAT and/or PAYE registered and therefore appear on the government business register (the IDBR), or it may exist without being registered.

11. A *registered business* or *enterprise* is the smallest combination of legal units (generally based on VAT and/or PAYE records) which has a certain degree of autonomy within an enterprise group. A branch or office of a larger organisation is not in itself an enterprise.

For example, a supermarket chain will count as one business, with the employment and turnover of individual stores, distribution centres etc included within this.

12. *Unregistered businesses* are those businesses run by self-employed people that are not large enough to be VAT or PAYE registered and therefore will not appear on the IDBR.

13. A single person may run more than one business and each of these businesses will be counted separately in these estimates.

Employees

14. The number of *employees* refers to the number of people working within the business under a contract of employment in return for a wage or salary. A business can be classed as having no employees if all the business is conducted by people classed as being working proprietors. In the detailed data tables for *BPE 2012*, Table 1 shows employment split out between working proprietors and employees.

For example, 20 partners in a partnership could all be defined as working proprietors if none of them were drawing a salary and therefore classed as an employee.

Employment

15. This refers to the number of employees plus the number of self-employed people (or 'working proprietors') who run the business. Individuals with two jobs in different businesses, and self-employed people running two businesses will be counted against each business. Both full-time and part-time employees are counted, and both are counted as an employee.

For example, a business with two partners and three employees will have five employment.

Turnover

16. This refers to the value of sales, work done and services rendered. It excludes VAT. Turnover data for registered businesses comes from the IDBR². Turnover data for unregistered businesses is estimated (see 'Economic contribution' in Section 2).

Size of business

17. This refers to the number of employees within a business. In the Statistical Release, we refer to small as those with 0 to 49 employees, medium as 50 to 249 employees and large as 250 or more employees. We also use the term "SME" to cover all businesses with 0 to 249 employees.

Coverage

18. With the exception of the Whole Economy table (Table 2) in the detailed data tables, the *BPE* publication covers the market sector - all private sector businesses³, even if they sell their products exclusively to the government. It excludes central and local government⁴, charities and other non-profit organisations, which are shown in Table 2 of the publication only.

19. Private households and extra-territorial bodies (sections T and U) are not included, as they are outside the scope of this publication.

20. There is no lower boundary for inclusion in the *BPE* publication. Even a small amount of business activity counts. However, many "no employee" businesses are labour-only sub-contractors; that is, self-employed people trading in their own skills or professional knowledge. They might work for just one customer. Many are genuine entrepreneurs or at least think of themselves as separate from the organisation to which they sell their skills. The improved *BPE* methodology used since the 2010 edition makes use of additional questions on the ONS *Labour Force Survey* around who pays the salary or wage of the self-employed and whether they pay their own National Insurance and Income Tax to better identify "true" self-employed activity (see Section 2).

21. Apart from Table 2 in the detailed data tables, which also includes Government and non-profit businesses, the *BPE* publication comprises of businesses from three types of legal status only - *sole proprietorships*, run by one self-employed person; *partnerships*, run by two or more self-employed people; and *companies* (including public corporations and nationalised bodies) in which the working directors are classed as employees. We assume that all unregistered businesses are from the first two categories, and we exclude companies that are not on the IDBR due to inactivity.

² Where there is an enterprise group, turnover for all the VAT enterprises within the group may be notified (to HMRC) by a reporting or 'standard' unit. If this is not updated from other sources the IDBR record will hold an unusually high turnover for the reporting enterprise and other enterprises within the group will hold an estimated turnover. Therefore turnover in a small number of businesses may be too high.

³ The private sector includes a small number of public corporations and nationalised bodies.

⁴ The local and central government sector is comprised of all enterprises classed by ONS as having an institutional classification of either local or central government, and private sector enterprises with SIC2007 classification codes 841 (administration of the state and the economic and social policy of the community, 842 (provision of services to the community as a whole), and 843 (compulsory social security activities).

22. The most detailed industry tables provided in the publication are disaggregated to 3-digit SIC 2007 level for businesses identified as employers only. This is because the estimates of the businesses with no employees relies heavily on the ONS *Labour Force Survey (LFS)* which is a sample survey, and is not robust enough to provide accurate estimates at this level of detail.

23. Tables have not been provided at either 4 or 5 digit level, as the level of suppression required to protect the data would be very high.

24. Companies with only one employee on the IDBR are counted in the “with no employees” category, rather than the “1 employee” category, as the employee is treated as a “working proprietor”. This is done to ensure that incorporations by individuals operating alone did not distort the overall numbers of businesses with employees. If the reallocation of companies from the “1 employee” to the “with no employees” band had not been undertaken then the distribution of companies across the various employee size bands would have been as shown in Table A below.

Table A: Companies (including public corporations and nationalised bodies): number of businesses, employment and turnover by number of employees, UK, start 2012.

	Number		
	Businesses	Employment (<i>thousands</i>)	Turnover ¹ (<i>£ billion</i>)
All businesses	1,341,115	18,127	2,862
All employers	1,335,865	18,122	2,858
With no employees	5,250	4	4
1	550,530	551	82
2+	785,335	17,572	2,776

1. Total turnover figures exclude SIC 2007 Section K (Financial and insurance activities) where turnover is not available on a comparable basis.

Download Excel data for [Table A](#).

25. As seen in Table A above, over five thousand companies have no employees recorded on the IDBR. Companies without employees can be holding companies, investment trusts or pension funds and most of these will have no associated employment. In addition a small number are companies where, for technical reasons, employee directors are treated as working proprietors. Around 511,000 companies with one employee have been counted in the “with no employees” data in the publication.

26. Around 13,000 businesses have been excluded from the registered business counts in *BPE 2012*. Most of those excluded are Composite and Managed Services Companies, and the remainder are registered at the address of an Official Receiver's Office. In both cases the address does not represent the location of the activities of these businesses and they have been excluded to avoid giving a false impression of business activity in these locations. Further details on Composite and Managed Service Companies can be found on the HM Revenue & Customs [website](#).

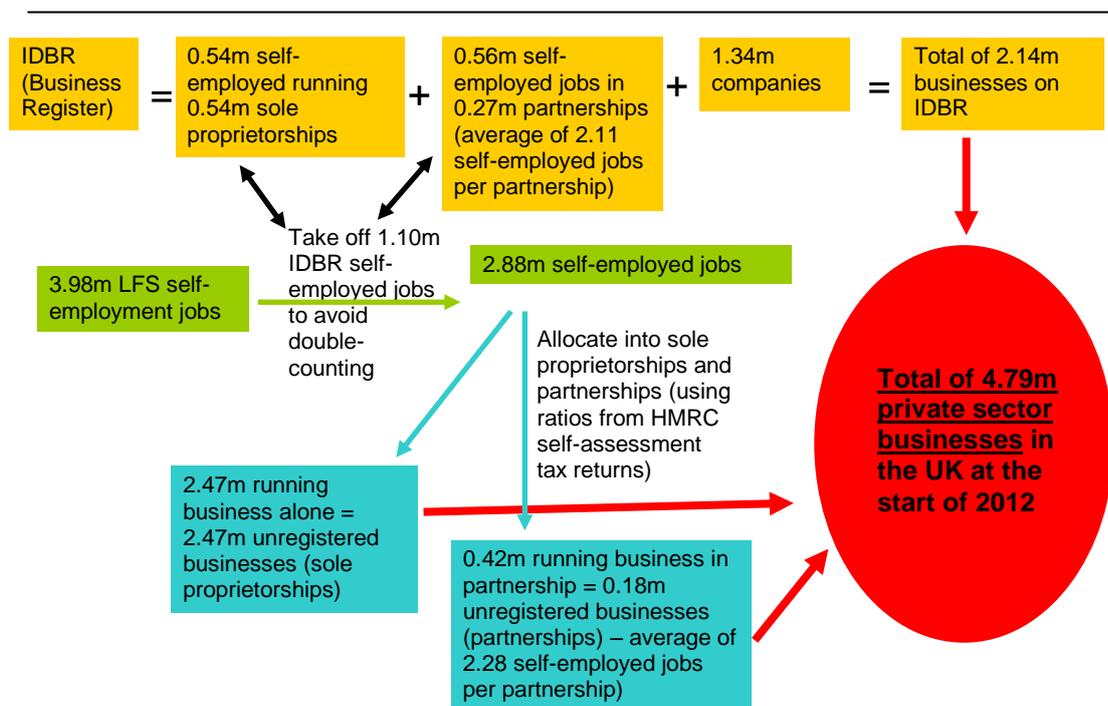
Section 2 – Methodology & Revisions

27. As there is no database of all businesses in existence in the UK, we must use available sources to estimate the number of businesses not on the IDBR (the business register). Further background on the IDBR can be found in Annex B.

Methodology in brief

28. The IDBR contains all registered businesses. It is assumed that all active companies are on the IDBR, so no further estimate of unregistered companies is required. We therefore only need to estimate unregistered businesses run by self-employed people, either alone (sole proprietorships) or with others (partnerships). We use the ONS *Labour Force Survey (LFS)* to obtain estimates of the number of people who say they are self-employed (counting self-employment in first and/or second declared 'jobs' separately, where applicable)⁵. We use the IDBR to count how many self-employed people (working proprietors) are running IDBR registered businesses. By subtracting the IDBR working proprietor jobs from the ONS *LFS* self-employed jobs total, we know how many self-employed jobs there are in unregistered businesses. We then use a ratio of self-employed working alone or in partnership and the average number of partners per partnership (from HMRC self-assessment tax return data) to allocate these self-employed jobs into businesses. We then add these to the IDBR registered businesses to get the estimated total business population in the UK (see Figure A).

Figure A: Flowchart to illustrate the *BPE* methodology.



⁵ More background on the ONS *Labour Force Survey* can be found at Annex B.

Methodology in detail

Self-employment estimates from the ONS *Labour Force Survey (LFS)*

29. There were an estimated 4.0 million self-employed jobs in the UK at the start of 2012⁶. This has been calculated by combining data from the Q4 2011 and the Q1 2012 quarterly ONS *LFS* micro-data (seasonally unadjusted) files.

30. The 4.0 million is made up of 3.6 million people self-employed in their main job and 0.4 million who had a second job with self-employed status. Some of those with self-employment as a second job may also have self-employment as a first job, but as it is the number of businesses in which we are interested, rather than the number of individuals, these figures can be added together.

Overlap of the IDBR and LFS self-employment count

31. Simply adding the self-employed jobs estimate from the *LFS* to the IDBR count would lead to double-counting of businesses in some instances since:

- (i) not all self-employed people run businesses on their own - some are in a partnership.
- (ii) some of them run businesses that are VAT and/or PAYE registered and so already appear on the IDBR.

32. The *LFS* does not ask individuals whether they work alone or in a partnership, or whether their businesses are VAT or PAYE registered, so this must be estimated.

Self-employed on the IDBR

33. The first step is to estimate how many self-employed people (working proprietors) are registered for VAT and/or PAYE with HMRC, and are therefore on the IDBR.

34. The IDBR records employment mainly via survey forms (currently, the *Business Register Employment Survey*). If there is no source of employment information (since *BRES* is a sample survey for the smallest units), then employment is taken from PAYE jobs where available - otherwise it is imputed from turnover data. Then to allocate the imputed employment into working proprietors or employees, the number of working proprietors is assumed to be one per sole proprietorship, and two per partnership. [Evidence from HMRC Tax Self-Assessment suggests it is slightly more than two].

35. Since directors of a company are classed as employees of the business, all private sector self-employed on the IDBR will be either in “sole proprietorships” or “partnerships”. At the start of 2012 there were 802,000 sole proprietorships and

⁶ These figures are different to those published by the ONS in their *Labour Market Statistics* release. See paragraph 96 for more detail.

partnerships within the scope of the *BPE* on the IDBR, run by 1.10 million self-employed people (see Figure A and Table B).

Self-employed not on the IDBR

36. The second step is to estimate how many businesses are run by people in the remaining 2.88 million self-employed 'jobs'.

37. HMRC's Self-Assessment Tax returns data (SA) is a further source of self-employment data⁷. HMRC produce a bespoke analysis of their SA data with data for those people running unregistered businesses alone or in partnership, which is used to estimate the proportion of unregistered self-employed people working either as a sole proprietor or a partner. Unregistered businesses are approximated in the HMRC SA data by selecting those businesses with turnover below the VAT threshold and that don't have employee costs (as a proxy for businesses not registered for PAYE).

38. 2010/11 HMRC SA data (the latest data available) for these businesses showed that self-employed people who were in partnership, rather than acting alone, were in the minority. However, the ratio varied from industry to industry and in the *BPE* publication, specific ratios are applied for each industry division (2 digit SIC).

39. Each sole proprietorship is assumed to have only one working proprietor (self-employed person). Therefore the number of unregistered sole proprietors is assumed to equal the number of unregistered sole proprietorships.

40. Partnerships are assumed to have two or more working proprietors. Using information from the 2010/11 HMRC SA data, BIS calculate that the average number of working proprietors (self-employed partners) in each partnership was 2.28 (based on data for self-employed businesses operating below the 2011/12 VAT registration threshold of £73,000 and with zero employment costs to approximate unregistered businesses). This ratio is then used to estimate the number of unregistered partnerships.

41. The results showed that amongst unregistered businesses, sole proprietorships were much more common than partnerships, making up 93 per cent of unregistered businesses at the start of 2012, with partnerships making up the remaining 7 per cent (see Table B).

42. Amongst IDBR registered businesses at the start of 2012, sole proprietorships represented 25 per cent of all businesses, partnerships 12 per cent and companies 63 per cent.

⁷ For more detail on the HMRC Self-Assessment data, see Annex D.

Table B: Businesses and self-employment on and off the IDBR, millions (private sector; excludes SIC 2007 Sections O, T and U), start 2012.

	On the IDBR, registered for either VAT and/or PAYE		Not on the IDBR, unregistered	
	Number of businesses	Self-employed people	Number of businesses	Self-employed people
Sole proprietorships	0.54	0.54	2.47	2.47
Partnerships	0.27	0.56	0.18	0.42
Companies	1.34	-	-	-
All	2.15	1.10	2.65	2.89

Download Excel data for [Table B](#).

Economic contribution

43. Unregistered businesses are clearly very small. It is assumed that they are all in the smallest size class (no employees), and are all self-employed people working alone or in partnership. Some may generate employment, but it is likely to be transitory or low paid, otherwise a PAYE scheme would be in operation.

44. Turnover in unregistered businesses will generally be lower than that of registered businesses of the same size, as turnover in the former would usually be below the VAT threshold.

45. Turnover for unregistered businesses is imputed by calculating the average turnover per working proprietor for registered zero employee businesses at the 2-digit industry division level, and then halving it.

46. For some 2-digit industry divisions, this still left average annual turnover per unregistered sole proprietorship or partnership above the VAT threshold. In these cases, unregistered turnover was adjusted so that turnover per business was just below the 2011/2012 VAT threshold of £73,000.

47. The addition to total turnover from unregistered businesses at the start of 2012 was about £91 billion (only 3.0 per cent of the overall turnover total).

Statistical disclosure control

48. The disclosure of data relating to individual undertakings without consent is prohibited under the Statistics of Trade Act 1947, the Value Added Tax Act 1994 and the Finance Act 1969.

49. Counts of businesses based only on IDBR data have been rounded to avoid disclosure using controlled rounding to base five. Controlled rounding means that cells are rounded up or down to the adjacent multiples of five in a way that retains the additivity of tables. For example, an original value of 23 will be rounded to either 20 or 25, and rounded values in a row or column always add up to the rounded row/column

total. Original cell values of zero or multiples of the base are unchanged. Values may be rounded down to zero and so all zeros are not necessarily true zeros⁸.

50. As the *BPE* publication is sourced from both the IDBR and *Labour Force Survey*, there will be a few cases where the addition of estimates of unregistered businesses to the IDBR data means totals do not equal the sum of the data in columns. In addition, percentages may not always add to 100.

51. Employment and turnover information has to be suppressed where the count is deemed to be disclosive. To avoid disclosure by deduction additional values have been removed.

52. The “with no employees” size class estimates rely heavily on the ONS *Labour Force Survey*, which is a sample survey of around 50,000 households (110,000 people) in the UK every three months.

53. In April 2004, the Statistical Policy Committee expressed a strong preference for publishing data rather than suppressing data for reasons of quality. Since then, the previously applied threshold of 10,000 (in the region of 20 respondents), below which outputs were suppressed, was removed from labour market outputs. Therefore such estimates are not suppressed in the *BPE* publication, although users should be aware that some estimates are based on small sample sizes which could explain volatility in certain estimates (for example, regional data at a broad sector level) from one year to the next.

54. The exception to this is where estimates are based on fewer than three respondents. These could potentially be disclosive, so they are still suppressed in the *BPE* publication, along with additional values to avoid disclosure by deduction.

Revisions Policy

Planned revisions

55. In this and all future editions, BIS will revise the headline estimates of the number of private sector businesses in the UK by size band back to 2000 (see Figure 2 of the Statistical Release and Table 24 of the detailed data tables), to reflect the impact of re-weighted ONS *LFS* data (based on updated population estimates) on the unregistered business population estimate, whenever it is released (usually annually).

56. If possible, BIS will also revise previously released estimates if new sources of information become available that are shown to improve the robustness of the *BPE*. Any future substantial methodological changes of this nature will be consulted on and pre-announced before they are implemented.

Unexpected revisions

57. These may occur due to the discovery of errors, unforeseen changes in methodology or the unexpected acquisition of new data. If an error is discovered, a

⁸ Controlled rounding is performed using Tau Argus software.

corrected version of the publication will be placed on the website as soon as possible, together with an explanation of the reason for the change, where appropriate. In the case of implementation of unforeseen changes in the methodology or the unexpected acquisition of new data, it will not usually be possible to pre-announce the changes, but as far as possible we will produce a consistent headline back series to enable robust comparisons over time.

Section 3 - Quality

58. This section provides information on the quality of the *Business Population Estimates*, to enable users to judge whether or not the data are of sufficient quality for their intended use. The section is structured in terms of the six quality dimensions of the [European Statistical System](#).

Relevance (*the degree to which the statistical product meets user needs for both coverage and content*)

59. There is no single database in the UK which contains details of every active business. This publication takes data from the 2.1 million businesses on the government business register, the IDBR (refer to Annex B for more information), which contains all businesses operating VAT and/or PAYE schemes, and then estimates how many very small *unregistered* businesses there are to estimate the total business population for the UK.

60. This publication, therefore, is the only official source for data on the number of businesses and their associated employment and turnover, for the entire UK business population, at a particular point in time.

61. The sources used to compile the estimates are the Inter-departmental Business Register, the ONS *Labour Force Survey* and HMRC self-assessment data (further information on the primary purpose, uses and quality of these sources is available in Annexes B, C and D). The IDBR is appropriate to use in compiling estimates for this publication because it provides comprehensive coverage of registered businesses. The *LFS* is an effective way to estimate the number of businesses not on the business register because it is an individual level survey that asks respondents about their current economic activity (with the option to cite multiple jobs), which therefore enables us to calculate the number of additional self-employed jobs not on the IDBR. HMRC self-assessment data is appropriate to allocate these *LFS* self-employed jobs into businesses, because of its' comprehensive coverage of the self-employed population, the ability to remove self-employed that are most likely running registered businesses and the information it gathers about whether the self-employed are operating in partnership or as a sole proprietorship.

62. The key users of this publication include central and local government, business owners, academics and students, business representative bodies, journalists and members of the public.

63. The key uses of this publication include informing policy making, policy monitoring, market research, impact assessments, facilitating academic research, etc. See the [BPE User Engagement Strategy](#) for more information.

64. User views have been taken into account in changes made to the *BPE* publication. In December 2008, BIS launched [Public Consultation](#) on *SME Statistics* to get the views of users on the usefulness of the publication and obtain suggestions for improvements. The consultation closed in March 2009 and was followed by the publication of a [government response](#) in June 2009.

65. Information on the changes introduced following the consultation can be found in the article [Business Population Estimates: introducing improved statistics on the UK enterprise population](#).

66. BIS are aware that users would like more information on the socio-demographic details of business owners. This is problematic since this information is not collected on the IDBR and businesses often have more than one owner-manager. Instead, users are advised to refer to surveys, such as the ONS *LFS* for characteristics of the self-employed population, or the BIS sponsored [Small Business Survey](#), which provides estimates of the proportion of SMEs that are women-led or ethnic minority-led, for example.

67. Additionally, BIS are aware that users would be interested in a more detailed disaggregation of the estimates, for example to a more detailed geographic level, or industrial level for the zero-employing businesses. However, since the estimate of the unregistered population with no employees relies partly on survey data, sample sizes mean that it would not be robust to disaggregate the existing data further (and the level of suppression to avoid disclosure would be high) using the current methodology.

68. Feedback on the *BPE* publication is positive. 71 per cent of the 42 respondents to a user survey between May 2011 and May 2012 said they found the Statistical Release very useful or quite useful. A summary of users views of the publication gathered through the *BPE* User Survey is available [here](#).

69. Further information relating to relevance is available elsewhere in this note, including the definition of key concepts (Section 1) and a description of the key sources used (Section 2).

Accuracy (including the closeness between an estimated or stated result and the [unknown] true value)

70. Since the *BPE* publication is based on a combination of survey and administrative data, it is very difficult to produce robust information on the accuracy of the final estimates.

71. Information on the accuracy of the individual underlying data sources used to produce the *BPE* publication (ONS *LFS*, IDBR and HMRC self-assessment data) is available in Annexes B, C and D.

72. Information in the publication relating to businesses with one or more employees will not be subject to survey error since it is based on complete administrative information from the IDBR (see Annex C for more quality information on the IDBR).

73. However, information in the publication relating to businesses with zero employees is based on a combination of administrative data from the IDBR and HMRC self-assessment data and estimates from the ONS *LFS*. Since the *LFS* is a sampled survey, these estimates will be subject to error.

74. The impact of this error for each estimate will vary depending on the balance between registered and unregistered businesses (and therefore how much is based on

the *LFS* data) and the balance between partnerships and sole proprietors in the zero-employee estimate in question.

75. Standard errors are not available from ONS for the specific self-employed jobs measure from the *LFS* that is used in the *BPE* so it is not possible to produce confidence intervals around the final estimates.

76. However, as an illustration, the impact of a ten per cent increase in the *LFS* element of the unregistered element of the UK headline figure would result in an increase in the final estimate of almost 250,000 (or five per cent). At an industry level, a ten per cent increase in the *LFS* element of the unregistered estimate for the Agriculture, Forestry and Fishing sector would also result in an increase of ten per cent in the final estimate for this sector. Whereas, for the Real Estate Activities sector an increase of ten per cent in the *LFS* element of the unregistered estimate would only result in a four per cent increase in the final estimate.

77. Information on revisions provided in Section 2.

Timeliness and Punctuality (*Timeliness refers to the elapsed time between publication and the period to which the data refer. Punctuality refers to the time lag between the actual and planned dates of publication.*)

78. The *BPE* provides an estimate of the number of businesses at the start of a calendar year, together with estimates of their associated employment and turnover. The estimates are published annually, approximately 10 months after the reference point, which is the earliest possible date after the data have been prepared and fully verified.

79. A count of IDBR businesses that were “live” at the start of the year is achieved by referring to each businesses recorded start date and, where appropriate, its closure date.

80. To produce the estimate of the number of unregistered businesses, information on the number of self-employed jobs is taken from the Office for National Statistics (ONS) *Labour Force Survey* (*LFS*). Pooled data for the two quarters either side of the start of the year are used in the production of the *BPE* estimate (i.e. quarter 4 (October to December) and quarter 1 (January to March)).

81. Employment data for businesses registered on the IDBR is drawn mainly from the ONS *Business Register Employment Survey* (*BRES*). For the *BPE 2012* publication, employment data will be generally based on the *BRES* conducted in September 2011 though some employment data will be more lagged than this. Since *BRES* is a sample, information for some businesses is estimated from earlier responses or other ONS surveys. For the smallest businesses that are less likely to be surveyed by *BRES*, either PAYE jobs or employment imputed from turnover is used. For further information refer to Annex B.

82. Turnover data for businesses registered on the IDBR is mostly based on VAT returns for a 12 month period. For *BPE 2012*, this means VAT returns relating to the 12 month period ending December 2010, or January / February 2011, depending on the reporting pattern of the business. However, for some businesses this data could be less timely or for newly registered businesses turnover will be based on estimates made by traders at the time of registration. For further information refer to Annex B.

83. The publication date for the next edition is pre-announced on the UK National Statistics [Publication Hub](#). The statistics have always been published on the pre-announced target date.

Accessibility and Clarity (*Accessibility is the ease with which users are able to access the data. It also relates to the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of metadata, illustrations and accompanying advice*)

84. The *BPE* publication is available free of charge to the end user on the BIS [website](#). On average, between January and September 2012, there were an average of 2,200 page views and 1,700 unique visits per month for the *BPE* home page. Over the same period there were 650 downloads of the Statistical Release.

85. The *BPE* publication comprises a Statistical Release containing key results and commentary to help interpret the data in accessible PDF format; more comprehensive detailed data tables in Excel; and this Methodology and Quality Note which should be read in conjunction with the statistics.

86. If you have any queries about the publication or would like it in an alternative format, please contact enterprise.statistics@bis.gsi.gov.uk.

Comparability (*the degree to which data can be compared over time and domain*)

87. To enable a robust comparison over time, the *BPE* publication includes a headline time series of the estimated number of UK businesses each year since 2000, by employee size band. This has been produced on a consistent basis using the latest *BPE* methodology (see Annex A for more information). Please note that where consistent data was not available (i.e. some key *LFS* information prior to 2007), modelling has been used to estimate information to produce these counts. These headline estimates (available in Figure 2 of the Statistical Release and Table 24 of the accompanying detailed dataset) are revisions to earlier estimates of UK business counts published in the *SME statistics* and *BPE* series.

88. The main purpose of the *BPE* publication is to provide information about the number of businesses which were operating in the UK at the start of each year, but the estimates also include information about their associated employment and turnover. Both turnover and employment information is updated on the IDBR via numerous sources and at different times (particularly for employment with the introduction of *BRES* in 2009). This makes it difficult to obtain accurate employment and turnover estimates on the IDBR because the figures for each business may not relate to the same point in time.

89. For this reason, it is not advisable to compare employment and turnover estimates over time. Instead, the employment and turnover data should be considered to be 'auxiliary variables' that can be used to compare shares across industrial sectors in the same year, for example.

90. On the other hand, comparisons of business counts over time can be made. As the IDBR is a live register that is continually updated each time a business registers or de-registers for VAT or PAYE, it can be taken as a reliable estimate of the number of registered businesses in operation at any point in time. Since the *BPE* publication is always based on a March extract of the IDBR (and a combination of the fourth and first quarters ONS LFS data for unregistered businesses), comparisons of business counts from year to year can be considered reliable (though note the information in paragraphs 60 and 61 in relation to the 'with no employees' category).

91. When making comparisons over time, consideration should be made of the discontinuities explained in Annex A.

92. In the *BPE* publication, the Standard Industrial Classification (SIC) 2007 is used to classify businesses by the type of economic activity in which they are engaged. This industrial classification system is used extensively by ONS in its' publications, and is fully consistent with the EU (NACE) and UN (ISIC) systems.

Coherence (*the degree to which data which are derived from different sources or methods, but which refer to the same phenomenon, are similar*)

93. For a comprehensive summary of the various National Statistics sources relating to the UK business population, their key characteristics and when to use each one, please refer to the [User Guide](#).

94. The *BPE* calculations are carried out at 2 digit SIC 2007 and also at 1 digit SIC 2007 at regional level. However, at present the HMRC self-assessment data is based on their own classification – the Standard Trade Classification. There is no simple translation from one to the other and it required an approximate correspondence to be drawn up between the two before the HMRC data could be used in the *BPE*. Often this is a straightforward 1-1 mapping, but in some cases, it can be 1-many or vice-versa. HMRC plan to move to SIC 2007 in the next year or so, which will remove this issue.

95. The headline estimate of self-employment published in the [ONS Labour Market Statistics release](#) (see Table 'EMP01') will differ from the estimate of self-employment used in the production of these estimates. This is because the ONS published measure estimates the number of people who said they were self-employed in their main job (and is seasonally adjusted), whereas the *BPE* estimate counts self-employment in respondents first and second jobs, and uses additional variables to ensure those included are 'true' self-employed jobs (by checking who pays the respondent's National Insurance, income tax and wage). Further information on this can be found in the Economic and Labour Market Review article - [Business Population Estimates: introducing improved statistics on the UK enterprise population](#).

96. The estimate of employment in the *BPE* publication will differ from other published sources from ONS:

Workforce jobs

97. Workforce jobs is the ONS preferred source for the number of jobs and the industrial composition of these jobs.

98. The ONS publishes official estimates of [Workforce Jobs](#) (see Table 'JOBS01'), which totalled 31.9 million in June 2012 (latest data available). The estimate of employment shown in most tables in this publication (23.9 million) differs in that it is private sector only, and excludes employment in central and local government, charities and other non-profit organisations, HM Forces and participants on government training programmes who do not have a contract of employment

99. The "Whole Economy" table (Table 2) shows total employment of 30.9 million at the start of 2012. This is still lower than the workforce jobs estimate above – which also includes individuals on government training programmes.

100. Workforce jobs are drawn from a number of different sources, including employer surveys, and are seasonally adjusted.

Business Register Employment Survey (BRES)

101. This publication shows an estimated 27.3 million employees in September 2011 ([latest data](#), published September 2012). This is a similar level to the 26.9 million employees at the start of 2012 estimated in the "Whole Economy" table in *BPE*, although employment information in the *BPE* publication comes from various sources and therefore relates to different time periods (see paragraphs 21 and 67). However regional estimates in these two publications will differ since in *BPE*, if a business has establishments in more than one region, the total employment is allocated to the region where the business is registered, whilst in *BRES* allocation is based on the physical location of the jobs.

102. *BRES* also has the benefit of being able to provide sub-regional employee estimates, but does not currently provide a size breakdown. It is the ONS preferred source for employee data at detailed regional and industrial level.

Annex A - Business Population Estimates methodology changes and discontinuities

1. This section provides useful information for those who wish to use the *BPE* series (2010-2012) to make comparisons over time.
2. Due to the significant methodological changes between *SME statistics 2009* and *BPE 2010*, direct comparisons should not be made between *SME statistics* and the *BPE* series. For information on discontinuities within the *SME statistics* series, please refer to the Methodology Note that accompanied each release.
3. The *BPE* publication includes a headline UK level time series of estimates of the business population between 2000 and 2012 (published in Figure 2 of the Statistical Release and Table 24 of the detailed data sheet). These UK level estimates revise and supersede those annual estimates previously published in the *SME statistics* and *BPE* series between 2000 and 2011. The time series has been produced on a consistent basis using the latest *BPE* methodology and latest ONS *LFS* re-weighted population data throughout (although please refer to the section below on 'Discontinuities in the *BPE* time series 2000-2012' for further information).

Methodology changes in the Business Population Estimates series

4. The *BPE 2012* publication has been produced using the same methodology as that used for the 2011 edition.
5. For the *BPE 2011* publication, there was a change in the methodology used to estimate the number of unregistered businesses. The main reason for this change was the availability of more detailed self-assessment data from HMRC which allowed us to approximate to those individuals working within unregistered businesses by using information on turnover and employment costs as proxies for VAT and PAYE registrations. Because the data more closely represented the unregistered business population, and because of its comprehensive nature, the ratios of sole proprietors to partners and partners per partnership in unregistered businesses could be produced and used at a more detailed level. This meant that the calculation of the number of unregistered businesses is more accurate because it is based only on information on the unregistered businesses of interest. As a result, the ratio of sole proprietors to partners in the final estimate of these businesses is more in line with the source HMRC self-assessment data than was previously the case. The impact of this change was to increase the estimated number of unregistered partnerships and therefore reduce the estimated total number of unregistered businesses, so that at the start of 2011 the total estimated number of businesses is approximately 90,000 lower than it would have been using the old methodology.
6. In the *BPE 2011* publication, businesses in SIC 2007 Division 78 (Employment activities) were included for the first time. It had previously been thought their inclusion could lead to double-counting of employees, who could be counted both as employees of the agency, and as employees of the business they are currently working for. However further investigations with the Office for National Statistics has confirmed that this is not the case and that robust estimates of both counts of businesses and employment in the 'Employment Agencies' sector can be provided from the IDBR. The impact of this change was to increase the total number of businesses in *BPE 2011* by

around 30,000. In the *BPE 2012* publication, turnover for these businesses was also included, in line with ONS methodology for the *UK Business* publication.

Discontinuities in the *BPE* time series 2000-2012

7. In the *BPE* publication, a time series of counts of businesses by size band at the UK level is provided (see Figure 2 in the Statistical Release and Table 24 of detailed data tables), produced using a consistent methodology (using some modelled data where real information was not available). However, when interpreting this time series please bear in mind the discontinuities listed below (listed in reverse chronological order).

8. The estimate of the total number of businesses increased by 253,000 (5.6 per cent) between the start of 2011 and start of 2012. Improvements made to HMRC computer systems have resulted in approximately 53,000 extra businesses being added to the government business register at the start of 2012. Of the 53,000 extra businesses, some will have existed before 2011 and therefore should have been included in previous estimates of the total business population. It is possible some of these previously existing businesses were captured in earlier estimates of the unregistered business population, but unfortunately the precise number cannot be calculated. Therefore, the actual increase in the total business population between the start of 2011 and the start of 2012 will lie between 200,000 (4.4 per cent) and 253,000 (5.6 per cent).

9. In *BPE 2012*, there was an increase of around 2,300 (37 per cent) local and central government bodies that were registered for either VAT and/or PAYE at the start of 2012 (see Table 2 'Whole Economy' in the detailed data tables that accompany the release). This increase was partly driven by changes in how parish council clerks are treated for tax purposes by HMRC. From April 2011, according to new guidance issued by HMRC, Parish Clerks can never be considered self-employed for tax or National Insurance contribution purposes, must not be paid "gross" and also must be taxed under PAYE (see [link](#) for more details).

10. Because of the implementation of a new computing system at HMRC, there were no quarterly updates of the PAYE data between June 2010 and March 2011 (when the IDBR extract for *BPE 2011* was taken). Therefore in *BPE 2011* employment data for many smaller businesses related to a period of time at least 6 months before the reference point of the publication i.e. start of 2011.

11. After the publication of *BPE 2010*, ONS reclassified Further Education (FE) Corporations in England and Wales from Non-Profit Institutions Serving Households (NPISH) to Central Government, from their inception in April 1993. NPISH is often known as the 'third sector'; in National Accounts. NPISH is part of the private sector. Consequently in *BPE 2011* over 400 FE colleges have been reallocated from the private sector to the central government sector. For further information refer to the [link](#) provided here.

12. Between 2000 and 2002, Primary Care Trusts and National Health Service trusts were classified as public corporations / nationalised bodies, and therefore included with the figures for companies and the private sector.

13. In 2003, the ONS reclassified these trusts, resulting in 275 businesses, with employment of 990,000 and turnover of £41 billion, being moved out of the figures for companies and private sector, and into the figures for Central Government. So in the

BPE headline time series before 2003, private sector figures will appear larger and Government figures will appear smaller than in subsequent years.

Annex B - ONS Inter-Departmental Business Register (IDBR)

1. The IDBR is a business register administered by the Office for National Statistics (ONS). It holds records of all businesses registered for Value Added Tax (VAT) and all businesses operating a Pay As You Earn (PAYE) scheme. Careful monitoring of the Register by the ONS minimises double counting. The IDBR holds information on each enterprise's employment (and hence size), turnover and industry.

2. The IDBR is a comprehensive list of UK businesses that is used by government for statistical purposes. It provides a sampling frame for surveys of businesses carried out by the ONS and by other government departments. It is also a key data source for analyses of business activity.

103.3. The main administrative source for the IDBR is HM Revenue & Customs (HMRC) for VAT information (passed to the ONS under the Value Added Tax Act 1994) and PAYE information (transferred under the Finance Act 1969). Use the links provided here for the latest information on both on the HMRC [VAT](#) and [PAYE](#) registration thresholds. Other information is added to the register if required for ONS statistical purposes, for example information from Dun and Bradstreet on company structure and information from Companies House.

4. Employment was originally taken from the biennial *Census of Employment*, an ONS inquiry. From 1995-1998 the main source was the *Annual Employment Survey*, which was replaced by the *Business Register Survey* (BRS). The employment information currently on the IDBR is drawn mainly from the 2011 *Business Register Employment Survey* (BRES). BRES is a survey of 80,000 businesses, with survey forms being sent out in September every year. Therefore most of the employment data on the IDBR will relate to a point about four months earlier than the reference point for *BPE 2012* (the start of 2012).

4. Since the implementation of BRES in 2009, employment data is updated on the IDBR on a monthly basis rather than annually, as updates are made as completed surveys are returned. This means that, at any point in time, employment data on the IDBR will be as accurate and up to date as possible, based on the survey returns that have been received at that time. Because this is based on a sample of businesses, estimates from previous surveys and from other ONS surveys have also been used. For the smallest units, either PAYE jobs or employment imputed from VAT turnover is used. Where employment data for a single business is captured from both PAYE and BRES, then the BRES data is given precedence and is used to update the IDBR.

5. Turnover provided to the ONS for the majority of businesses at the start of 2012 is based on VAT returns for a 12 month period ending in December 2010, or January / February 2011, according to the reporting pattern of the business. For other records, in particular members of VAT group registrations, turnover may relate to an earlier period or survey data. For businesses who have registered more recently, turnover represents the estimate made by businesses at the time of registration. For the small number of PAYE-only records for which there are no data, turnover is imputed from employment. The turnover figures on the IDBR generally exclude VAT but include other taxes such as the revenue duties on alcoholic drinks and tobacco.

6. The IDBR is being continuously updated as new data from surveys are received and businesses open and close. In addition a variety of checks on individual records improve the quality of the register on an ongoing basis. Thus there will be differences in results taken at different times from the register as new data are added and other data revised.

7. The ONS undertakes numerous and continuous checks on the quality of the data held on the IDBR. Regular VAT and PAYE updates are received from HMRC and these updates are checked with the new VAT and PAYE registrations being matched. Many of the PAYE-based businesses will have no VAT registration; some units may be waiting to be matched to existing VAT records on the IDBR.

8. Small businesses are not completely covered by the IDBR. Businesses that are neither registered for VAT, nor operate a PAYE scheme are excluded from the IDBR. The threshold for compulsory VAT registration for 2011/2012 was an annual turnover of £73,000. Below that some businesses will register voluntarily.

9. On the other hand, businesses with a turnover above the threshold are not required to register if they trade exclusively in exempt goods. If a business has no employees or only low paid (perhaps part-time) employees, then it is unlikely to operate a PAYE scheme.

10. The IDBR provides all the data on registered businesses in this publication. It is also the key source for the ONS publications *UK Business: Activity, Size and Location* and *Business Demography*.

11. Further information on the quality of the IDBR is provided [here](#).

Annex C - ONS *Labour Force Survey*

1. The *Labour Force Survey (LFS)* is a quarterly sample survey of around 50,000 households (110,000 people) living at private addresses in Great Britain and Northern Ireland. Its purpose is to provide information on the UK labour market that can then be used to develop, manage, evaluate and report on labour market policies. The questionnaire design, sample selection, and interviewing are carried out by the Social Survey Division of the Office for National Statistics (ONS) on behalf of the Statistical Outputs Group of the ONS.
2. ONS publishes full UK *LFS* results. However, the fieldwork is carried out separately; by ONS for GB, and by the Central Survey Unit of the Department of Finance and Personnel in Northern Ireland on behalf of the Department of Trade and Investment (DETINI).
3. The survey seeks information on respondents' personal circumstances and their labour market status during a specific reference period, normally a period of one week or four weeks (depending on the topic) immediately prior to the interview.
4. The *LFS* is carried out under a European Union Directive and uses internationally agreed concepts and definitions. It is the source of the internationally comparable labour market data, such as the International Labour Organisation measure of unemployment, known as "ILO unemployed".
5. The *LFS* collects data on economic activity, which is self-reported.
6. Additional questions on who pays the respondent's income tax and national insurance, and their wage or salary are also included in the survey.
7. This source is used by BIS to estimate the number of self-employed jobs in the economy. By excluding those already included on the IDBR (see Annex A) and converting these jobs into businesses, BIS is then able to estimate how many unregistered businesses there are.
8. Further information on the quality of the *LFS* is provided [here](#).

Annex D - HMRC Self-Assessment Tax Returns data

1. Self-assessment data is collected by HM Revenue & Customs through tax returns completed by self-employed workers either as individuals or in partnership. Full detail of the different [HMRC Self Assessment forms](#) is provided here.
2. Data coming from the self-assessment record offers several advantages over the previously used *Survey of Personal Incomes*. For example, it is a larger record, being a near-census of the self-employed. Self-assessment data also allows us to approximate to those individuals working within unregistered businesses by using information on turnover and employment costs as proxies for VAT and PAYE registrations.
3. Despite the above advantages, there are features of the self-assessment data that make it less than ideal. For example, there are relatively high levels of missing data that cannot be coded to regions or to industrial sectors. Also, a conversion is needed to move from the HMRC classification of industry areas to SIC 2007. However, BIS considers on balance that this is still a marked improvement over *SPI* data.
4. HMRC supply to BIS a special analysis of the data that provides, for every 2-digit SIC classification (and for every region at 1-digit level), an estimate of the ratio of sole proprietors to partners, enabling BIS to convert the number of unregistered self-employed individuals into numbers of actual businesses.
5. Fundamentally, we would expect HMRC Self Assessment data to be high quality; there is a legal obligation for people to respond accurately and it is in HMRC's interests to ensure accurate information. But, as BIS is using the data for a purpose other than the main one for which the data are collected, there are other considerations. The main areas where there are quality considerations are as follows:

i) Classification into SIC

The BPE calculations are carried out at 2 digit SIC 2007 and also at 1 digit SIC 2007 at regional level. However, at present HMRC use their own classification – the Standard Trade Classification (although HMRC plan to move to SIC 2007 over the next year or two). Consequently, BIS converts from STC to SIC 2007 and this is a possible source of error. There are also some data where STC is missing and these cannot be used.

It is important to note that the absolute number of cases overall within the SA data does not matter other than the normal rule of thumb that more data is better. HMRC data is used solely to apportion numbers that we already have, so the 15 per cent or so overall missing STC codes should not matter greatly, other than when it varies between sole traders and partners as described above.

ii) Regional data

As with STC data, some of the regional data are missing. However, this is a much smaller problem with less than 2 per cent missing and there is no obvious bias (e.g. concentration in certain STC categories etc.).

iii) Partnership data

There are potentially different ways of looking at partnership data. One way is to look at the HMRC partnership return and take the number of partners reported on that. The alternative is to look at partner returns from individuals and the partnerships that they

are linked to. The latter approach yields approximately 10 per cent fewer partners. BIS follows this approach as HMRC advice is that this gives a better coverage of active partners, although it may exclude some valid partnership data.

iv) Proxying registered businesses

BIS uses HMRC data to split those self-employed jobs in unregistered businesses into sole proprietors and partnerships. BIS aims to approximate to the population of those in unregistered businesses as far as possible within the SA data. To do this, HMRC apply two filters; one on turnover and one on employment costs. These can give only an approximation to unregistered businesses, and there will be cases where the filter results in the wrong outcome. As with some of the other above cases, any possible quality effect is indirect since HMRC data is only used to apportion out numbers coming from elsewhere.

Overall summary

There are no major weaknesses in the HMRC data. The basic quality of the data is good and the imperfections highlighted above are more than compensated for by the comprehensive nature of the data. Still, BIS is working with HMRC colleagues to better understand the data and we can expect that any future changes will be relatively minor, but will be improvements.

Annex E - Links to other sources of Business and Employment data

Small and Medium Enterprise Statistics for the UK and Regions (1994-2009) (BIS)

For more information on the *SME statistics* please contact the Department for Business, Innovation and Skills (BIS), Enterprise Directorate, Enterprise and Economic Development (EEDA) Team.

- Contact BIS: 0114 207 5104
- E-mail: enterprise.statistics@bis.gsi.gov.uk
- [Website link](#)

UK Business: Activity, Size and Location (ONS)

This annual publication is compiled from the IDBR. The publication contains detailed information on VAT registered and/or PAYE registered businesses in the UK including size, classification (to 4-digit SIC), business age and location.

- Contact ONS: 01633 4456902
- Email: pa1003@ons.gov.uk
- [Website link](#)

Business Demography (ONS)

This annual publication provides the best official guide to business births, deaths and survival rates. The figures cover businesses registered for either VAT and/or PAYE.

- Contact ONS: 01633 456902
- Email: business.demography@ons.gov.uk
- [Website link](#)

Business Start-ups and Closures: VAT registrations and de-registrations series (BIS)

This former series based on VAT registrations and de-registrations alone was produced by the Department for Trade and Industry (DTI). The series provided data on VAT registrations and de-registrations between 1994 and 2007. Information on survival rates for VAT registered businesses was also produced. This series was superseded by the ONS *Business Demography* publication (see above) in 2007.

- Contact BIS: 0114 207 5104
- Email: enterprise.statistics@bis.gsi.gov.uk
- [VAT registrations/deregistrations website link](#) and [VAT survival rates website link](#)

Workforce Jobs (ONS)

This series provides the best guide to employment at a national and regional level.

- Contact ONS workforce jobs helpline: 01633 456776
- Email: workforce.jobs@ons.gsi.gov.uk
- [Website link](#)

- **Business Register Employment Survey (ONS)**

This annual publication provides the best guide to employment at a sub-regional level, and compliments figures available from Workforce Jobs at a national and regional level.

- Contact ONS: 01633 456720
- E-mail: annual.employment.figures@ons.gov.uk
- [Website link](#)

Company Register Statistics (Companies House)

This provides a monthly record of all companies registered in the UK.

- Contact Companies House: 029 20380745
- Email: jkulczycki@companieshouse.gov.uk
- [Website link](#)

Labour Force Survey (ONS)

A wide range of labour market data including self-employment data is available from the Labour Force Survey, which is run by the Office for National Statistics. This is published in various formats, including the Labour Market Statistics release below.

- Contact ONS: 01633 455400 or Nick Palmer 01633 455839
- E-mail: labour.market@ons.gov.uk
- [Website link](#)

Inter-Departmental Business Register (IDBR) (ONS)

The IDBR is managed by the Office for National Statistics. More detail on the IDBR can be found at the website below.

- Contact IDBR Helpdesk: 01633 455200
- E-mail: idbr.helpdesk@ons.gov.uk
- [Website link](#)

Census 2001 (ONS)

The Census 2001 asked questions about self-employment. Data are available by gender, ethnic group, location, and main industry group. Data from the recent 2011 Census will be made available in 2013.

- Contact ONS Census Customer Services: 01329 444972
- Email: census.customerservices@ons.gsi.gov.uk
- [Website link](#)

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