



## **BUSINESS POPULATION ESTIMATES FOR THE UK AND REGIONS, 2011**

### **METHODOLOGY 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 (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*, but uses a revised methodology to improve the quality of estimates of the number of enterprises. 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 subsequent *BPE 2011* publication was released on 12 October 2011 and incorporates a further improvement to the methodology (see 'Improvements to methodology' on page 24 for more information).
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 IDBR<sup>1</sup>, which contains all businesses operating VAT and/or PAYE schemes, and then estimates how many very small *unregistered* enterprises 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 enterprises 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* (hereafter referred to as *BPE*) is a National Statistics publication.
6. National Statistics are produced to high professional standards set out in the *Code of Practice for Official Statistics*. As part of the on-going assessment of existing National Statistics, the *BPE* publication will be assessed by the UK Statistics Authority between October 2011 and January 2012, for compliance with the *Code of Practice*. Further information on National Statistics can be found on the UK Statistics Authority website<sup>2</sup>.
7. In line with the *Principle on Frankness and Accessibility* from the *Code of Practice for Official Statistics* this document provides guidance for users on classifications and methods. 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.
8. The *BPE* publications for 2010 and 2011 and *SME Statistics* publications for the years 1994 to 2009 can be downloaded from <http://www.bis.gov.uk/analysis/statistics/business-population-estimates> For further information or to give feedback on the *BPE* publication please contact us via email at [enterprise.statistics@bis.gsi.gov.uk](mailto:enterprise.statistics@bis.gsi.gov.uk).

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<sup>1</sup> IDBR = Inter Departmental Business Register – for more details, see Annex B

<sup>2</sup> Information on National Statistics can be found at <http://www.ons.gov.uk/ons/guide-method/the-national-statistics-standard/index.html>

# Section 1 - Definitions and Coverage

## Definitions used in this publication

### Enterprise/Business

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

10. A *registered 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 enterprise, with the employment and turnover of individual stores, distribution centres etc included within this.*

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

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

13. In this methodology note and the Statistical Release the terms “enterprise” and “business” are used interchangeably.

### Employees

14. The number of *employees* refers to the number of people working within the enterprise under a contract of employment in return for a wage or salary. An enterprise 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 2011*, 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 enterprise. Individuals with two jobs in different enterprises, and self-employed people running two enterprises will be counted against each enterprise. Both full-time and part-time employees are counted, and both are counted as an employee.

For example, an enterprise 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 enterprises comes from the IDBR<sup>3</sup>. Turnover data for unregistered enterprises is estimated (see 'Economic contribution' in Section 2).

## Size of enterprise

17. This refers to the number of employees within an enterprise. 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 enterprises with 0 to 249 employees.

## The time period covered

18. *BPE* provides an estimate of the number of enterprises at the start of a calendar year, together with estimates of their associated employment and turnover.

19. A count of IDBR enterprises that were "live" at the start of the year is achieved by referring to each enterprise's recorded start date and, where appropriate, its closure date.

20. 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)).

21. Employment data for businesses registered on the IDBR is drawn mainly from the ONS Business Register and Employment Survey (*BRES*). For the *BPE 2011* publication, employment data will be generally based on the *BRES* conducted in September 2010 though some employment data will be more lagged than this. Since *BRES* is a sample, information for some enterprises is estimated from earlier responses or other ONS surveys. For the smallest enterprises 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.

22. Turnover data for businesses registered on the IDBR is mostly based on VAT returns for a 12 month period. For *BPE 2011*, this means VAT returns relating to the 12 month period ending December 2009, or January / February 2010,

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<sup>3</sup> 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.

depending on the reporting pattern of the business. However, for some enterprises 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. Refer to Annex B for further information.

## Coverage

23. 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 enterprises<sup>4</sup>, even if they sell their products exclusively to the government. It excludes central and local government<sup>5</sup>, charities and other non-profit organisations, which are shown in Table 2 of the publication only.

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

25. Enterprises and employment in the 'employment activities' sector (SIC 78 - which covers employment agencies and human resources provision), are included for the first time in the *BPE 2011* publication. For further information refer to Annex A on Discontinuities.

26. There is no lower boundary for inclusion in the *BPE* publication. Even a small amount of enterprise 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 around who pays the salary or wage and whether they pay their own National Insurance and Income Tax to better identify "true" self-employed activity (see Section 2).

27. Apart from Table 2 in the detailed data tables, which also includes Government and non-profit enterprises, the *BPE* publication comprises of enterprises 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 enterprises are from the first two categories, and we exclude companies that are not on the IDBR due to inactivity.

28. Since the publication of *SME Statistics 2000*, companies with only one employee on the IDBR have been moved from the "1 employee" category into the "with no employees" category, as the employee is treated as a "working proprietor". This was done to ensure that incorporations by individuals operating

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<sup>4</sup> The private sector includes a small number of public corporations and nationalised bodies.

<sup>5</sup> 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).

alone did not distort the overall numbers of enterprises 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 enterprises, employment and turnover by number of employees, UK, start 2011

	Number		
	Enterprises	Employment (thousands)	Turnover <sup>1</sup> (£ billion)
All enterprises	1,258,830	17,788	2,784
All employers	1,253,560	17,784	2,781
With no employees	5,270	4	3
1	511,430	512	83
2+	742,130	17,273	2,698

1. "All Industries" turnover figures exclude Section K (financial and insurance activities) and Division 78 (employment activities) where turnover is not available on a comparable basis.

29. 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.

30. Around 16,000 enterprises have been excluded from the registered enterprise counts in *BPE 2011*. 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 enterprises and they have been excluded to avoid giving a false impression of business activity in these locations. Further details on Composite and Managed Services Companies can be found on the HM Revenue & Customs website<sup>6</sup>.

## Industrial Classification

31. In the *BPE* publication, industrial data is provided using the SIC 2007 classification.

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

<sup>6</sup> See <http://www.hmrc.gov.uk/employment-status/details.htm>

33. Tables have not been provided at either 4 or 5 digit level, as the level of suppression would be very high.

34. Further background information on SIC 2007 can be found in Annex E.



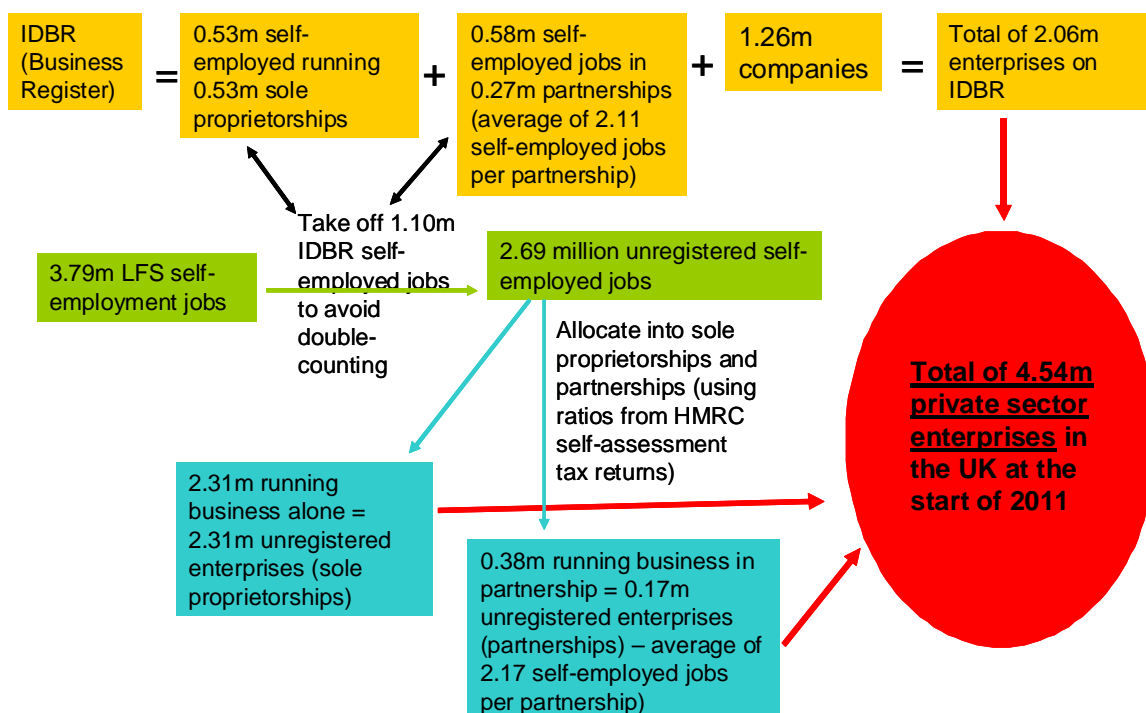
## Section 2 – Business Population Estimates Methodology

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

### Methodology in brief

36. The IDBR contains all registered enterprises. 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 enterprises 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)<sup>7</sup>. We use the IDBR to count how many self-employed people (working proprietors) are running IDBR registered enterprises. 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 enterprises. 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 enterprises. We then add these to the IDBR registered enterprises to get the estimated total business population in the UK (see Figure A).

Figure A: Flowchart to illustrate *BPE* methodology



<sup>7</sup> 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)

37. There were an estimated 3.8 million self-employed jobs in the UK at the start of 2011. This has been calculated by combining data from the Q4 2010 and the Q1 2011 quarterly *LFS* micro-data (seasonally unadjusted) files.

38. The 3.8 million is made up of 3.5 million people self-employed in their main job and 0.3 million who had a second job with self-employed status<sup>8</sup>. 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 enterprises 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

39. 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.

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

### Self-employed on the IDBR

41. 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.

42. 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].

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<sup>8</sup> These figures are different to those published by the ONS in their Labour Market Statistics release (which relate to main job only). This is partly due to data being seasonally unadjusted, but mainly due to some cases being excluded to better estimate "true" self-employment. See page 15 for more detail.

43. 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 2011 there were 801,000 sole proprietorships and partnerships within the scope of the *BPE Statistics* on the IDBR run by 1.11 million self-employed people (see Figure A and Table B).

### **Self-employed not on the IDBR**

44. The second step is to estimate how many enterprises are run by people in the remaining 2.69 million self-employed ‘jobs’.

45. HMRC’s Self-Assessment Tax returns data (SA) is a further source of self-employment data<sup>9</sup>. HMRC produce a bespoke analysis of their SA data with data for those people running unregistered enterprises alone or in partnership, which we use to estimate the proportion of unregistered self-employed people working either as a sole proprietor or a partner. Unregistered enterprises 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).

46. 2009/10 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).

47. 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.

48. Partnerships are assumed to have two or more working proprietors. Using information from the 2009/10 HMRC SA data, BIS calculate that the average number of working proprietors (self-employed partners) in each partnership was 2.17 (based on data for self-employed businesses operating below the 2010/11 VAT registration threshold of £70,000 and with zero employment costs to approximate unregistered businesses). This ratio is then used to estimate the number of unregistered partnerships.

49. The results showed that amongst unregistered enterprises, sole proprietorships were much more common than partnerships, making up 93.0 per cent of unregistered enterprises at the start of 2011, with partnerships making up the remaining 7.0 per cent (see Table B).

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<sup>9</sup> For more detail on the HMRC Self-Assessment data, see Annex D.

Table B: Enterprises and self-employment on and off the IDBR, UK, millions, (private sector; excludes Standard Industrial Classification, O, T and U)

	On the IDBR		Not on the IDBR, unregistered	
	Number of Enterprises	Self-employed people	Number of Enterprises	Self-employed people
Sole proprietorships	0.53	0.53	2.31	2.31
Partnerships	0.27	0.58	0.17	0.38
Companies	1.26	-	-	-
All	2.06	1.11	2.48	2.69

50. Amongst IDBR registered enterprises at the start of 2011, sole proprietorships represented 26 per cent of all enterprises, partnerships 13 per cent and companies 61 per cent.

### **Economic contribution**

51. Unregistered enterprises 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.

52. Turnover in unregistered enterprises 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.

53. Turnover for unregistered enterprises is imputed by calculating the average turnover per working proprietor for no employee enterprises on the IDBR, and then halving it.

54. 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 enterprise was below the 2010/2011 VAT threshold of £70,000.

55. The addition to total turnover from unregistered enterprises at the start of 2011 was about £84 billion (only 3 per cent of the overall turnover total).

### **Statistical disclosure control**

56. 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.

57. Counts of enterprises 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 zeros<sup>10</sup>.

58. 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.

59. 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.

60. The “with no employees” size class estimates rely heavily on the *Labour Force Survey*, which is a sample survey of around 53,000 households in the UK every three months. In the *SME Statistics 2002 to 2004*, any enterprise estimates using an LFS estimate of less than 10,000 self-employed in the industry were suppressed, along with additional values to avoid disclosure by deduction. This was consistent with the publication guidelines used by ONS at the time to advise users which estimates met a certain level of reliability.

61. In April 2004, the Statistical Policy Committee expressed a strong preference for publishing data rather than suppressing data for reasons of quality. Following this discussion, the threshold of 10,000 (in the region of 20 respondents) has been removed from labour market outputs where possible. Therefore since the publication of *SME Statistics 2005*, such estimates are no longer suppressed, 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.

62. 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

63. As highlighted in the National Statistics Code of Practice *Protocol on Revisions*, statistics are by their nature subject to error and uncertainty. Initial estimates are often systematically amended to reflect more complete information. Improvement in methodologies and systems can help make revised series more accurate and more useful.

### Planned revisions

64. In this and all future editions, BIS will revise the headline estimates of the number of private sector enterprises in the UK by size band back to 2000, to reflect re-weighted ONS *LFS* data (based on updated population estimates) as it is released. BIS will also consider using new sources of information that may

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<sup>10</sup> Controlled rounding is performed using Tau Argus software.

become available, if they are shown to improve the robustness of the *BPE* publication estimates. Any future substantive methodological changes that are made to these estimates will be pre-announced before they are released into the public domain.

### Unexpected revisions

65. 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 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 we will produce a consistent headline back series to enable robust comparisons over time.

## Comparisons over time

66. To enable a robust comparison over time, for the first time the *BPE 2011* publication includes a headline time series of UK enterprise counts between 2000 and 2011, by size band. This has been produced on a consistent basis using the latest *BPE 2011* 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 are revisions to earlier estimates of UK enterprise counts published in the *SME statistics* and *BPE* series.

67. The main purpose of the *BPE* publication is to provide information about the number of enterprises which were operating in the UK at the start of each year, but the estimates also include information about enterprises' 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/turnover estimates on the IDBR because the figures for each enterprise may not relate to the same point in time.

68. 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.

69. On the other hand, comparisons of enterprise counts over time can be made. As the IDBR is a live register that is continually updated each time an enterprise registers/de-registers for VAT/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 enterprise counts from year to year can be considered reliable (though note the information in paragraphs 60 and 61 regarding the 'with no employees' category).

## Improvements to Methodology

70. In December 2008, BIS launched a 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 release of a government response document in June 2009. Both the consultation document and the government response document are available here:

[http://www.berr.gov.uk/whatwedo/enterprise\\_old/enterprisesmes/page49415.html](http://www.berr.gov.uk/whatwedo/enterprise_old/enterprisesmes/page49415.html)

71. Additional information on further methodological developments following the review can be found in the Future Steps section of *Government Response to Consultation on Small and Medium Enterprise Statistics for the UK and Regions*, available here: <http://www.berr.gov.uk/files/file51821.pdf>

72. BIS aimed to minimise the disruption caused by the methodological improvements and discontinuities to the *SME Statistics* series by applying as many of the changes as possible at the same time in the *BPE 2010* publication, released in May 2011. The name of the publication was changed to make it clear to users that there was a discontinuity. The main changes are listed below:

(i) A change in how we use the **Labour Force Survey self-employment data** to produce the estimates. *SME Statistics* used self-reported self-employment as the basis of calculating the number of unregistered enterprises. However a proportion of LFS respondents who say they are self-employed are employee directors of incorporated enterprises – so technically employees. This over-estimate of the self-employed population results in an over-estimate of the number of unregistered enterprises. BIS has developed a new methodology which more accurately estimates the number of self-employed people. The Labour Force Survey asks self-employed people (in their main job), and employees not paid a wage or salary by an employer, who it was that pays their National Insurance and Income Tax. These individuals are also asked who it was that paid their salary and wage. These questions are used to derive a 'true' self-employed population, where individuals are considered to be self-employed if:

- they pay either their own Income Tax and/or National Insurance, **and** they are not a sole director of a limited company; or
- they do not give an answer to the question about Income Tax and National Insurance, **and** they do not give an answer to the question about who pays their salary or wage (on the basis that when there is no additional information the self-reported status has to be used).

These estimates of 'true' self-employed have been used for the first time in *BPE 2010*. Of all three major changes, this change has had the largest impact on the overall estimate of the number of enterprises.

(ii) a change to using HMRC self-assessment data in producing the estimates. Previously, HMRC's Survey of Personal Incomes (SPI) data was used to provide information on the ratio of sole proprietors to partners. This

information is applied to the estimate of unregistered working proprietors from the Labour Force Survey to determine the number of sole proprietors and partners. BPE uses HMRC self-assessment (SA) data to carry out the same process. The SA data is based on the self-assessment returns database, almost a census of the self-employed, whereas the SPI is a sample survey. As well as being based on more individuals than the SPI, a further benefit comes from additional information about individuals. In particular, in the SPI, the ratios of sole proprietors to partners was derived from all enterprises, whereas SA data allows us to approximate to those individuals working within unregistered enterprises by using information on turnover and employment costs as proxies for VAT and PAYE registrations.

(iii) a change to the data extracted from the Inter-Departmental Business Register (IDBR) used to produce the estimates. In the BPE methodology, BIS is moving closer to ONS practice by excluding a number of categories from the IDBR data (such as enterprises with no UK activity and enterprises with little evidence of trading activity). Additionally a new inclusion statement issued for the IDBR data in BPE. Inclusion statements are a check to remove larger enterprises with only limited evidence of their existence. In line with ONS practice, the inclusion statement has been changed for enterprises with 20 or more employment, with the result that some enterprises that were previously excluded from SME Statistics are now included in BPE.

73. Further information on these changes can be found in the article *Business Population Estimates: introducing improved statistics on the UK enterprise population*, available here:

<http://www.ons.gov.uk/ons/rel/elmr/economic-and-labour-market-review/april-2011/economic-and-labour-market-review.pdf>

74. In *BPE 2011*, one further methodological improvement has been implemented, due to the availability of more detailed HMRC self-assessment data. Because the data now more closely represents the unregistered business population, and because of its comprehensive nature, the ratio of sole proprietors to partners in unregistered businesses can be produced and used at a more detailed level. This has led to an increase in the accuracy and relevance of the ratios that are used in the calculation of the number of unregistered businesses. The impact of this improvement is to reduce the estimated number of unregistered enterprises by around 90,000.

75. Further detail on this change and a small change in the coverage in the *BPE* series since the 2010 edition, and a minor discontinuity in the time series, can be found in Annex A.



## Timeliness of the publication

76. The *SME Statistics* series used to be published in the autumn of each year around 21 months after the reference point (the start of each calendar year). For example, *SME Statistics 2009* provided estimates for the start of 2009 and was published in October 2010. This publication used an IDBR extract file taken 15 months after the start of 2009 (in March 2010).

77. Discussions with the Office for National Statistics following the public consultation on the methodology showed that a shorter three month lag IDBR extract file could be used (i.e. estimates for the start of 2010 could be based on an IDBR extract taken in March 2010) which would still provide robust data on the number of registered enterprises and their contribution to employment and turnover.

78. Therefore in 2011, though the *BPE 2010* publication was released on a slightly extended timescale due to additional preparatory work that was required, the *BPE 2011* estimates (and future editions) will be published approximately 10 months after the reference point. The impact of this change has been to improve the relevance, timeliness and usefulness of the publication

## Section 3 - Comparisons with other published data

79. This section provides comparisons with other published data and advises when each source should be used, and gives reasons for differences between published figures. A summary of key publications, telephone numbers, email addresses and web addresses can be found at Annex F.

### UK Business: Activity, Size and Location (ONS)

80. This publication contains details on all active registered enterprises (VAT and/or PAYE) as at March each year, with the latest publication showing 2.08 million registered businesses in March 2011.

81. This total is lower than the number of enterprises in *BPE 2011*, primarily because *BPE* also includes an estimate of the number of unregistered enterprises.

82. There are also some differences in coverage, since *UK Business* includes government and non-profit organisations which are only included in the *BPE* publication in the Whole Economy table (Table 2).

83. In the *SME statistics* series, the criteria used to select active enterprises from the IDBR differed to that used in *UK Business*, but methodological improvements to the *BPE* mean that we have now moved much closer to the *UK Business* criteria, with the expectation that the criteria will be harmonised in the future.

### Business Demography (ONS)

84. The ONS *Business Demography* publication estimates the stock of registered enterprises active at any point over a year. The latest figure is 2.3 million active businesses during 2009. Therefore the stock is higher than the *UK Business* stock since it includes any enterprises active at any point over the year, not just those active on one particular date. However, the total is still lower than the Whole Economy estimate in *BPE* as it excludes unregistered enterprises, the agriculture sector and local and central government.

### Workforce jobs (ONS)

85. Workforce jobs is the ONS preferred source for national and regional data on employment.

86. The ONS publishes official estimates of "workforce jobs", which totalled 31.2 million in September 2010<sup>11</sup> (latest data available). The estimate of employment shown in most tables in this publication (23.4 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

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<sup>11</sup> <http://www.ons.gov.uk/ons/rel/wfj/workforce-jobs/march-2011/index.html>

87. The “Whole Economy” table (Table 2) shows total employment of 30.5 million at the start of 2011. This is still lower than the workforce jobs estimate above – which also includes individuals on government training programmes.

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

### **Annual employment statistics: Business Register Employment Survey (BRES) (ONS)**

89. This publication shows an estimated 26.8 million employees in September 2010 (latest data, published September 2011). This is a similar level to the 26.7 million employees at the start of 2011 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 differ since in *BPE*, if an enterprise has establishments in more than one region, the total employment is allocated to the region where the enterprise is registered whilst in BRES, allocation is based on the physical location of the jobs.

90. 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 employment data below regional level.

### **Monthly Register Statistics (Companies House)**

91. These statistics are published monthly, and are based on the Companies House register. Their latest statistics (as at 4 September 2011) show a total register of 2.75 million and an active register of 2.52 million in the UK.

92. The *BPE* publication shows a total of 1.3 million active companies as at the start of 2011.

93. Companies House figures are higher than the number of companies produced in the *BPE* (which are sourced from the ONS IDBR), for several reasons:

- the IDBR includes checks that companies have had recent VAT/PAYE activity, whilst Companies House figures include dormant companies with no economic activity;
- the IDBR checks whether individual company registrations have close financial links and are in fact part of the same enterprise and combines them, where appropriate;
- the IDBR will exclude some companies which are included in the Companies House data, if they are registered in the UK, but all their economic activity occurs overseas.

## Annex A - Business Population Estimates 2010 to 2011 Discontinuities

1. This section provides useful information for those who wish to use the *SME statistics* (1994 to 2009) and *BPE* series (2010 to 2011) to draw 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* publication. For further information on discontinuities within the *SME statistics* series, please refer to the Methodology Notes that accompanied each release.
3. For the first time, the *BPE 2011* publication includes a headline UK level time series of estimates of business stock between 2000 and 2011 (published in Table 24 of the detailed data sheet). These UK level estimates of the business stock revise and supersede those estimates previously published in the *SME* series and *BPE 2010*. The time series has been produced on a consistent basis using the latest *BPE 2011* methodology throughout (although please refer to the section below on 'Discontinuities in the BPE time series' for further information).

### Changes in *Business Population Estimates* over time

4. For the *BPE 2011* publication, there has been a change in the methodology used to estimate the number of unregistered businesses. The main reason for this change is the availability of more detailed self-assessment data from HMRC which allows us to approximate to those individuals working within unregistered enterprises by using information on turnover and employment costs as proxies for VAT and PAYE registrations. Because the data now more closely represents the unregistered business population, and because of its comprehensive nature, the ratios of sole proprietors to partners and partners per partnership in unregistered businesses can be produced and used at a more detailed level. This means 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 has been 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.
5. In the *BPE 2011* publication, enterprises and employment in SIC Division 78 (Employment activities) have been 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 enterprises and employment in the

'Employment Agencies' sector can be provided from the IDBR. Investigations are on-going to establish whether turnover for these businesses can also be included without the risk of double-counting and therefore this is still excluded in *BPE 2011*. The impact of this change has been to increase the total number of enterprises in *BPE 2011* by around 30,000.

6. After the publication of *BPE 2010* ONS have 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 below:

<http://www.ons.gov.uk/ons/guide-method/classifications/na-classifications/classification-articles/class/index.html>

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

8. At the start of 2011 the self-employment series from the Labour Force Survey was re-weighted to the 2010 mid-year population estimates (back to 2002). This re-weighted data was used to produce the latest estimates and also to produce the new headline UK back series of business counts between 2000 and 2010.

### **Discontinuities in *BPE* time series 2000-2011**

9. A time series of counts of enterprises by size band at the UK level has been 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 discontinuity below.

10. In *SME Statistics 2002*, and earlier releases, 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.

11. In 2003, the ONS reclassified these trusts, resulting in 275 enterprises, 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 enterprises registered for Value Added Tax (VAT) and all enterprises 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 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). 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.

3. 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 2010 Business Register and Employment Survey (BRES). BRES is a survey of 80,000 enterprises, 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 4 months earlier than the reference point for BPE 2011 (the start of 2011).

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 enterprises, 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 enterprises in 2011 is based on VAT returns for a 12 month period ending in December 2009, or January / February 2010, according to the reporting pattern of the enterprise. For other records, in particular members of VAT group registrations, turnover may relate to an earlier period or survey data. For enterprises who have registered more recently, turnover represents the estimate made by enterprises 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 enterprises 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 enterprises will have no VAT registration; some units may be waiting to be matched to existing VAT records on the IDBR.
8. Small enterprises are not completely covered by the IDBR. Enterprises that are neither registered for VAT, nor operate a PAYE scheme are excluded from the IDBR. The threshold for compulsory VAT registration for 2010/2011 was an annual turnover of £70,000. Below that some enterprises will register voluntarily.
9. On the other hand, enterprises with a turnover above the threshold are not required to register if they trade exclusively in exempt goods. If an enterprise 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 enterprises in this publication.

## Annex C - ONS Labour Force Survey

1. The Labour Force Survey (LFS) is a quarterly sample survey of around 53,000 households 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 and Vital Statistics 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 people running enterprises, and therefore by excluding those already included on the IDBR (see Annex A), BIS is able to estimate how many people are running unregistered enterprises.



## 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 forms is available at:

<http://search2.hmrc.gov.uk/kb5/hmrc/forms/view.page?formid=3720&record=3GgSUbZFPRc>

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 enterprises 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 that this is still a marked improvement over *SPI* data.

4. The data are used to produce, 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.

## Annex E - Industrial classification – main changes from SIC 2003 to SIC 2007

1. This release uses the 2007 revision to the Standard Industrial Classification (UKSIC(2007)) in place of the 2003 revision (UKSIC(2003)). The UKSIC(2007) is a major revision of UKSIC(2003) with changes at all levels of the SIC. These revisions are motivated by the need to adapt the classifications to changes in the world economy. The revised classifications reflect the growing importance of service activities in the economy over the last fifteen years, mainly due to the developments in information and communication technologies (ICT).

2. Details of the UKSIC(2007) are available on the National Statistics Classification website and in the following publications:

- UK Standard Industrial Classification of Economic Activities 2007
- Indexes to the UK Standard Industrial Classification of Economic Activities 2007

3. Information relating to the implementation of UKSIC(2007) and the major differences between UKSIC(2003) and UKSIC(2007), is presented in the August 2008 edition of the ONS Economic & Labour Market Review.

4. Key differences between UKSIC(2003) and UKSIC(2007) are as follows:

- Section J - Information and communication: This is a major new sector and brings together publishing, motion picture and sound recording industries, broadcasting (radio and TV industries), telecommunications, internet activities, and other news services.
- Section L – Property: Development and selling of real estate, previously in Section K (Property and business services) under UKSIC(2003), now moves to Construction under UKSIC(2007).
- Section M – Professional, scientific and technical services: Previously incorporated under “business activities” as part of section K under UKSIC(2003), this is now a new section.
- Section N – Administrative and support services: formerly covered under section K under UKSIC(2003), section N is a new grouping which pulls in units from many parts of UKSIC(2003), for example: employment services, call centres, travel arrangements and reservation services, investigation and security services.

5. Other significant changes include:

- Recycling moves from Manufacture (UKSIC(2003)) to Section E – Water supply, sewerage, waste management and remediation

(UKSIC(2007)). This is grouped with Section D – Electricity, gas, steam and air conditioning supply to form the Utilities grouping.

- Sewage, refuse disposal and sanitation moves from Section O – Other community services (UKSIC(2003)) to Section E (UKSIC(2007)).
- Repair and maintenance of personal and household goods (UKSIC(2003)) moves from the Retail section to the Services sector (UKSIC(2007)).
- Holding companies move from the Services sector (UKSIC(2003)) to the Finance sector (UKSIC(2007)).
- Veterinary services move from the Health sector (UKSIC(2003)) to the Professional, scientific and technical activities sector (UKSIC(2007)).

6. Notable changes to the broad industry group under UKSIC(2007) are:

- Hotels & catering have now been relabelled Accommodation & food services.
- The former group Post & telecommunications has been split, with Postal and Courier activities being included in Transport & storage, and the remaining Telecommunications being relabelled Information & communication which now includes film, television and radio.
- Property & business services have been split into 3 new groups: Property; Professional, scientific & technical; and Business administration & support services.

## Annex F - Links to other sources of Enterprise and Employment data

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

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
- Email: [enterprise.statistics@bis.gsi.gov.uk](mailto:enterprise.statistics@bis.gsi.gov.uk)
- Website: <http://webarchive.nationalarchives.gov.uk/20110920151722/http://stats.bis.gov.uk/ed/sme/index.htm>

### 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 enterprises in the UK including size, classification (to 4-digit SIC), business age and location.

- Contact ONS: 01633 4456902
- Email: [pa1003@ons.gov.uk](mailto:pa1003@ons.gov.uk)
- Website: <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-21554>

### Business Demography (ONS)

This annual publication provides the best official guide to the pattern of enterprise births and deaths. The figures include all businesses registered for either VAT and/or PAYE.

- Contact ONS: 01633 456902
- Email: [business.demography@ons.gov.uk](mailto:business.demography@ons.gov.uk)
- Website: <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-21553>

### 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](mailto:workforce.jobs@ons.gsi.gov.uk)
- Website: <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-21869>

## **Annual Employment Statistics - Business Register Employment Survey (ONS)**

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

- Contact ONS: 01633 456720
- Email: [annual.employment.figures@ons.gov.uk](mailto:annual.employment.figures@ons.gov.uk)
- Website: <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm%3A77-230512>

## **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](mailto:jkulczycki@companieshouse.gov.uk)
- Website: <http://www.companieshouse.gov.uk/about/businessRegisterStat.shtml>

## **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: 0845 601 3034 or Nick Palmer 01633 455839
- Email: [labour.market@ons.gov.uk](mailto:labour.market@ons.gov.uk)
- Website: <http://www.ons.gov.uk/ons/about-ons/surveys/a-z-of-surveys/labour-force-survey/index.html>

## **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
- Email: [idbr.helpdesk@ons.gov.uk](mailto:idbr.helpdesk@ons.gov.uk)
- Website: <http://www.ons.gov.uk/ons/about-ons/who-we-are/services/idbr/about-the-idbr/index.html>

## **Census 2001 (ONS)**

The Census 2001 asked questions about self-employment. Data are already available by gender, ethnic group, location, and main industry group.

- Contact ONS Census Customer Services: 01329 444972
- Email: [census.customerservices@ons.gsi.gov.uk](mailto:census.customerservices@ons.gsi.gov.uk)
- Website: <http://www.ons.gov.uk/ons/guide-method/census/census-2001/about-census-2001/index.html>