Business Population Estimates for the UK and Regions

Introducing improved statistics on the UK enterprise population

Julian Shaw
Department for Business, Innovation and Skills

Summary

In May 2011 the Department for Business, Innovation and Skills will publish *Business Population Estimates for the UK and Regions 2010*. This National Statistics release is a continuation of the series in *Small and Medium Enterprise Statistics for the UK and Regions* but uses a new methodology to improve the quality of estimates of the number of enterprises¹. This article sets out the detail of three major methodological changes and other key changes, and explains how they impact on the estimates by size, legal status, sector and region. To illustrate the combined impact of these methodological changes, the estimate of the number of enterprises at the start of 2009 is presented as a case study. Under the new methodology, there were an estimated 4.4 million enterprises at the start of 2009, compared to 4.8 million reported in *Small and Medium Enterprise Statistics 2009*.

Introduction

The Department for Business, Innovation and Skills (BIS) has previously published estimates of the total number of enterprises in the publication *Small and Medium Enterprise Statistics for the UK and Regions (SME Statistics)*. This National Statistics series ran from 1994 to 2009, containing data on the number of enterprises at the start of the year with their associated employment and turnover².

In December 2008 BIS launched a public consultation on *SME Statistics*, a key component of which was a set of questions on proposals to change the methodology (see BIS 2008). Respondents on the whole welcomed the ideas BIS put forward for improving the methodology. In June 2009 BIS published the *Government Response to the Consultation on Small and Medium Enterprise Statistics for the UK and Regions* (see BIS 2009). In this response BIS committed to further investigate the options for improving the methodology and implementing changes where appropriate.

BIS identified a number of areas where improvements could be made to the estimate of the number of enterprises. One key area is the over-count in the self-employment estimate used to produce *SME Statistics*. It is only recently that a change to the Labour Force Survey questionnaire has allowed a robust methodology to be developed for estimating the ‘true’ level of self-employment.

Other improvements were identified, such as more closely following ONS practice when selecting enterprises from the Inter-Departmental Business Register (IDBR) and using HMRC self-assessment data for the first time. Recent improvements to the timing of employment estimates on the IDBR have presented BIS with the opportunity to use an earlier IDBR data extract and produce estimates sooner than before. For the first time all the constituent data sources used in producing *SME Statistics* are available in the Standard Industrial Classification 2007 (SIC2007), allowing the publication to be based on this format.

In order to minimise the number of discontinuities in the series, all of the improvements to the methodology will be applied at the same time. *SME Statistics for the UK and Regions* has been renamed *Business Population Estimates for the UK and Regions* to ensure users are aware of the significant change in methodology between the 2009 and 2010 estimates.

Overview

This article describes the methodology used in *SME Statistics* and *Business Population Estimates*. The first section highlights where the three major methodology changes described in this article fit into the overall methodology.

The second section covers each of the three major methodology changes in detail. In summary these are:

- a change to the Labour Force Survey self-employment data used in producing the estimates. This change in isolation results in a 421,000 (9 per cent) decrease in the estimated overall number of enterprises at the start of 2009 (compared with *SME Statistics 2009*)
- a change to using HMRC self-assessment data in producing the estimates. This change in isolation results in a 71,000 (1 per cent) increase in the estimated overall number of enterprises at the start of 2009 (compared with *SME Statistics 2009*)
- a change to the Inter-Departmental Business Register (IDBR) data used in producing the estimates. This change in isolation results in a 30,000 (1 per cent) fall in the estimated overall number of enterprises at the start of 2009 (compared with *SME Statistics 2009*)

When all three of these major methodology changes are applied at the same, the overall estimate for the business population at the start of 2009 decreases from the published 4.8 million to 4.4 million (or by around 398,000 and 8 per cent). The third section describes this overall impact of the changes in more detail, showing results by size, legal status, industry sector and UK country/region.

The fourth section describes other changes that will be introduced with the publication of *Business Population Estimates*.

Summary of the estimation methodology

The methodology used in producing *SME Statistics* is described in this section. Although the broad methodology is the same for both publications, the methodology used to derive the underlying source data has changed. This is discussed in subsequent sections.

There is no single database in the UK which contains details on every active business. Further information on the different sources of enterprise population data is shown in **Box 1**.

Box 1 Sources of data on the enterprise population

There are several sources of information on the enterprise population. The three main official sources are:

- *UK Business: Activity, Size and Location* (ONS) provides data on all enterprises registered for either VAT and/or PAYE in the UK. These data refer to the number of enterprises active on a particular day (see ONS 2010a).
- *Business Demography* (ONS) provides data on all enterprises registered for either VAT and/or PAYE in the UK which are active and listed on the IDBR at any time during the full calendar year (see ONS 2010b).
- *Small and Medium Enterprise Statistics* (BIS) provides the only estimate of the total number of enterprises in the UK. Unlike the ONS publications *SME Statistics* incorporates an estimate of the un-registered enterprise population. These data show the estimated number of enterprises active on 1 January each year.

The total number of enterprises therefore has to be estimated using a number of different data sources. The *SME Statistics* methodology takes data from the approximately 2.2 million enterprises which are on the government business register, the Inter Departmental Business Register (IDBR). The IDBR contains all VAT and/or PAYE registered enterprises³. It is assumed that all active companies⁴ are on the IDBR. The IDBR is used to count how many self-employed people are running registered businesses, either alone or in partnership. The methodology then estimates how many very small unregistered enterprises there are to create a total business population for the UK (see **Figure 1**).

The ONS Labour Force Survey (LFS) is used to get estimates of all self-employed jobs. In the *SME Statistics* methodology this involves adding together all main job and all second job self-employed (the LFS does not ask about subsequent jobs). By subtracting the IDBR total self-employed jobs (in sole proprietorships or partnerships) from the LFS estimate of self-employed jobs, it is possible to estimate how many self-employed people there are running non-registered enterprises.

HMRC data on the ratio of self-employed people working alone or in partnership and the average number of partners per partnership is used to allocate these working proprietors into enterprises⁵. These are added to the IDBR registered enterprises to get the estimated total enterprise population

in the UK. A more detailed description of the methodology used is available in the methodology note for *SME Statistics* and in the forthcoming methodology note for *Business Population Estimates* (see BIS 2010a and BIS 2010b for more details).

Figure 1 Flowchart to illustrate the estimation methodology, with figures representing data used in *SME Statistics 2009*

Elements of the methodology impacted by changes are shown in boxes with dashed borders.

Component A: the number of self-employed jobs, taken from the LFS

Component B: the ratio of sole proprietors to partners, in *SME Statistics* this is taken from the HMRC Survey of Personal Incomes

Component C: the number of enterprises registered on the IDBR

The methods used to calculate each of the three components highlighted in Figure 1 will change in the *Business Population Estimates* methodology. These three major changes are described in more detail in the following section.

Description of each major methodology change

New methodology for calculating Labour Force Survey self-employment

– This relates to Component A in Figure 1

The ONS Review of Employment and Jobs Statistics (see ONS 2006) recommended that comparisons between estimates of jobs produced from household and business surveys should be made on a quarterly basis. Following on from this ONS made a commitment to reconcile the

differences between the estimates of the number of jobs published in the Workforce Jobs Series (WFJ) and the estimates published in the Labour Force Survey.

The Review of Employment and Jobs Statistics identified approximately 30 reasons why the LFS and WFJ estimates of jobs differ from each other, one of which was the double-counting of some self-employment jobs.

Some employees sampled for the employer surveys may state they are self-employed when surveyed as part of the LFS. As self-employment data in WFJ is sourced from the LFS, the estimates in WFJ potentially double-count jobs in a way that the LFS does not.

The reasons for the over-counting of self-employed are discussed in more detail in the article 'Comparison of Statistics on Jobs: September 2007' published in *Economic & Labour Market Review*, March 2008 (see Machin 2008).

Reclassifying main job activity

To help quantify this over-counting, the ONS has included a new question on the Labour Force Survey since Q1 2007 which 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.

This new question (the 'NITax' variable) when combined with the question asking respondents who paid their salary and wage (the 'SELF' variable), allowed the ONS for the first time to produce a better estimate of the 'true' self-employed population.

Individuals who pay their own National Insurance and Income Tax are legally considered to be self-employed, and should be registered as self-employed with HM Revenue and Customs. Sole directors of limited companies should be classed as employees rather than self-employed⁶.

ONS use this methodology to reconcile information on the number of jobs in the economy from the LFS with that from the Work Force Jobs (WFJ) series⁷. BIS Enterprise Directorate can now use the ONS methodology for generating improved estimates of the self-employed population⁸.

Under this new methodology 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).

Those individuals stating that they are the sole director of a limited company will in all cases be classed as employees. Similarly those individuals stating that their National Insurance and Tax are deducted by an organisation are classed as employees in all cases.

The NITax and SELF questions are asked to all people that self-report they are self-employed. However for self-reported employees a filter question (PDWAGE) is applied before these questions. PDWAGE asks whether the individual gets paid a salary or wage by an employer. Those that say 'no' are then asked the NITax and SELF questions, and can potentially be reclassified as self-employed.

The worked examples in **Figures 2** and **3** use averaged LFS data from Q4 2008 and Q1 2009. These two quarters were used in the production of *SME Statistics 2009*, and therefore allow comparisons to be made with the data that was used in the publication.

These figures illustrate that of the 3.8 million people who identify themselves as self-employed in their main job, only 3.3 million are to be considered as 'true' self-employed, with approximately 500,000 being reclassified as employees.

On the employee side approximately 22,000 individuals are reclassified as self-employed. **Box 2** displays the detail of this reclassification.

Box 2 Detail on the new estimates for main and second job self-employment

Main job self-employment reclassification in Q4 2008/Q1 2009

- 3,826,000 self-reported self-employment in their main job
- In the new methodology 476,000 are reclassified as employees
- And 22,000 employees are reclassified as self-employed
- The estimate for 'true' self-employed in main job is 3,371,000
- After exclusions for industry sectors outside the scope of the publication a figure of 3,277,000 main job self-employed is used in the estimation process

Second job self-employment estimation in Q4 2008/Q1 2009

- 374,000 self-reported self-employment in their second job
- Once excluding industry sectors outside the scope of the methodology this figure is 355,000
- The proportion of self-reported self-employment that is true self-employment in the main job is 88 per cent
- This proportion is calculated for each 2-digit SIC, and within each region and broad industry grouping. The proportions are applied to the second job self-employed numbers in each of these categories
- When each of these categories is summed up to the UK total (for industry sectors included in the scope of the methodology) they equal 315,000 individuals who are estimated to be 'true' self-employed in their second job

This results in a total self-employment estimate of 3,592,000

Figure 2 **Methodology for reclassification of the self-employed in main job**

Figure 3 **Methodology for reclassification of employees in main job**

Estimating second job self-employment

Both *SME Statistics* and *Business Population Estimates* use information on individuals who are self-employed in their main and/or second jobs, to more fully capture self-employment activity in the UK. This allows a more complete estimate of the total number of enterprises.

The variables used in estimating 'true' self-employment in the respondents' main job are not available for second jobs. Therefore it is necessary to develop a way to better estimate 'true' second job self-employment in the absence of the additional questions in the LFS.

Analysis conducted by BIS found there was no evidence that main job self-employed individuals with a second job were any more likely to get their self-employment status correct when self-reporting in their main job than the average. Most second job self-employed had a main job that was not in self-employment.

Furthermore there was no bias in the distribution of second job self-employed towards sectors or occupations where, in the main job, they got the self-classification correct. Taking this into account, the method adopted for estimating second job self-employment was to take the ratio of self-reported self-employment to 'true' self-employment in main job, and to apply that ratio to second job self-employment. Box 2 displays the detail of this method for the LFS data in Q4 2008/Q1 2009.

Summary of the effects of the methodology on main and second self-employment jobs

The preceding analysis gives new estimates for main and second job self-employed. This is the methodology that will be used in the production of *Business Population Estimates*.

Table 1 brings together the data to show the overall difference between the self-reported self-employment levels and levels based on the new methodology.

Table 1 Self-employment jobs, UK, average Q4 2008 and Q1 2009

Not seasonally adjusted

	Self-reported	Self-reported for industry sectors in scope*	New methodology estimating 'true' self-employment	New methodology for industry sectors in scope*
Main job	3,826,000	3,721,000	3,371,000	3,277,000
Second job	374,000	355,000	330,000	315,000
Total	4,200,000	4,075,000	3,701,000	3,592,000

* Industry sectors that are used in the estimation process, see the methodology note for SME Statistics for further information (BIS 2010a)

Source: BIS analysis of ONS Labour Force Survey

As can be seen in Table 1 the number of self-employment jobs in the UK is 4.2 million when based on self-reporting, and 4.1 million for those sectors in the scope of the methodology for *SME Statistics* and *Business Population Estimates*. The figure of 4.1 million was used in the estimation of unregistered businesses for *SME Statistics 2009*.

Using the new methodology, and excluding industry sectors outside the scope of the estimation process, the number is 3.6 million self-employment jobs.

This new figure of 3.6 million self-employment jobs, when used in the estimation process for the total number of enterprises in the UK, produces an overall estimate of 4.4 million enterprises. This represents a decrease of 0.4 million (9 per cent) on the estimated 4.8 million enterprises reported in *SME Statistics 2009*.

Changes to the HMRC data used to calculate the ratio of sole proprietors to partners

– This relates to Component B in Figure 1

In order to estimate the number of unregistered businesses, the number of self-employed jobs associated with unregistered businesses is first estimated. The number of businesses accounted for by these jobs is then estimated.

Under the *SME Statistics* methodology the starting point for these estimates is the number of people in the LFS stating that they are self-employed. The number of self-employed individuals working in IDBR registered enterprises is then removed. In order to estimate the remaining number of enterprises, information on sole proprietorships (one enterprise, one person) and partnerships (one enterprise, more than one self-employed person) is required. Previously, HMRC's *Survey of Personal Incomes* (SPI) has been used to do this. This provided, for each SIC 2-digit classification, an estimate of the ratio of partners to sole proprietors. This was used to convert the number of self-employed people in each classification into the number of enterprises.

One of the methodological changes being introduced improves the estimate of these ratios. *Business Population Estimates* will use HMRC self-assessment (SA) data to carry out the same process. SA data is not perfect, for example, it includes approximately 15 per cent of cases where industry data is missing. However it is based on the whole self-assessment record, almost a census of the self-employed⁹. As well as having more data, 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 focus only on individuals working within unregistered enterprises, by excluding enterprises registered for VAT.

The impact of this specific improvement is an increase in the estimates of the number of unregistered enterprises. This occurs because of the exclusion of registered enterprises from the ratio calculation and the fact that partnerships with more individuals are more likely to be registered enterprises. By excluding these enterprises, the remaining data contains relatively fewer partners than sole proprietors, which results in a higher ratio of businesses per self-employed person. Using 2008/9 self-assessment data instead of 2007/8 SPI data in the estimation of the number of enterprises produced a figure of 4.9 million enterprises at the start of 2009. This represents an increase of 0.1 million (1 per cent) on the figure published in *SME Statistics 2009* of 4.8 million.

Changes to the Inter-Departmental Business Register data

– This relates to Component C in Figure 1

In addition to the changes in the LFS self-employment data and HMRC data, *Business Population Estimates* will also include IDBR data with new selection criteria.

The IDBR contains a number of selection markers which allow the most appropriate units to be selected in relation to any specific survey requirement. IDBR data currently used in *SME Statistics* includes enterprise units from all of these selection marker categories.

However this is not in line with ONS practice on excluding enterprises in a number of categories. In the *Business Population Estimates* methodology, BIS is moving closer to ONS practice by excluding a number of categories (such as enterprises with no UK activity and enterprises with little evidence of trading activity).

Additionally a new inclusion statement will be used for *Business Population Estimates*. Inclusion statements are a check to remove larger enterprises with only limited evidence for their existence. In line with ONS practice the inclusion statement is being changed for enterprises with 20 or more employment with the result that some of these enterprises that were previously excluded from *SME Statistics* will be included in *Business Population Estimates*.

As a result of this change in the IDBR extract criteria some enterprises have been taken out while other enterprises have been added in. As can be seen in **Table 2** the change in criteria has the overall impact of reducing the number of enterprises by around 30,000 (-1 per cent). However in some of the larger size categories the number of enterprises has increased due to this change of methodology. The 20–49 employees size category increased by almost 5,000 (9 per cent), using the new IDBR criteria.

Key results from applying the *Business Population Estimates* methodology

Summary of the impact of each methodology change on the estimate of the number of enterprises at the start of 2009

As outlined before self-employment data is used to estimate the number of unregistered enterprises, which when added to the number of VAT and/or PAYE registered enterprises (taken from the Inter Departmental Business Register) provides the BIS estimate of the total number of UK enterprises.

Table 3 shows the impact of making each methodology change (new LFS data, new IDBR criteria, using HMRC self-assessment data) and the combined impact of making all these changes on the estimates of the number of enterprises at the start of 2009.

Table 2 Impact of the change in IDBR criteria on the estimate of the number of businesses

Start 2009, United Kingdom

	As published in SME Stats 2009	Calculated with the new IDBR data	Difference (number)	Difference (per cent)
All enterprises	4,834,045	4,803,840	-30,205	-1
All employers	1,220,070	1,223,625	3,555	0
With no employees*	3,613,975	3,580,215	-33,760	-1
1	189,120	188,115	-1,005	-1
2-4	606,485	605,590	-895	0
5-9	224,000	223,800	-200	0
10-19	113,620	113,710	90	0
20-49	54,050	58,855	4,805	9
50-99	17,770	18,360	590	3
100-199	7,665	7,790	125	2
200-249	1,470	1,485	15	1
250-499	3,005	3,025	20	1
500 or more	2,885	2,895	10	0

*'With no employees' comprises sole proprietorships and partnerships comprising only the self-employed owner-manager(s), and companies

Source: BIS estimates

Table 3 Impact of each methodology change on the estimate of the number of enterprises

Start 2009, United Kingdom

	Data published in <i>SME Statistics 2009</i>	Calculated using LFS self- employment data on the new methodology*	Calculated using HMRC self-assessment data*	Calculated using IDBR data based on the new criteria*	Calculated using all new data sources - the <i>Business Population Estimates methodology</i>
Number	4,834,045	4,413,160	4,905,205	4,803,840	4,436,050
Change on <i>SME Statistics 2009</i> (number)	-	-420,885	71,160	-30,205	-397,995
Change on <i>SME Statistics 2009</i> (per cent)	-	-9	1	-1	-8

* In each case the other data sources used in the calculation were the same as those used in producing SME Statistics 2009.

Source: BIS estimates

Table 3 shows that using the new *Business Population Estimates* methodology, the estimate for the business population at the start of 2009 is reduced from the published 4.8 million to 4.4 million (or by around 398,000 and 8 per cent).

These results detail the impact of each key methodological change in isolation, alongside the overall impact of applying all of the changes together. As the interaction between these changes is complex the overall impact is different to the sum of each of the changes.

As can be seen the largest impact is from the change in the LFS self-employment data, which reduces the overall number of enterprises by nine per cent. The change in the IDBR data in isolation has a smaller impact on count, reducing the estimate of the total number of enterprises by around one per cent.

The change to using HMRC self-assessment data in isolation leads to a one per cent increase in the total number of enterprises.

The impact of the new methodology on the number of enterprises at the start of 2009 by size, legal status, industry sector and UK region

The composite results from the new methodology are shown in more detail in **Table 4** and compared against figures published in *SME Statistics 2009*. These data show that the change in the methodology mostly impacts on the number of enterprises with zero employees (and the 'all enterprises' total). This is to be expected as the self-employment data, which has the largest impact on the estimate, is only used to estimate unregistered enterprises, all of which have no employees.

Changes to the number of enterprises in the larger size bands are caused only by a change to the IDBR data in these size bands (see Table 3).

SME Statistics and *Business Population Estimates* are comprised of enterprises from three types of legal status. These are companies (including public corporations and nationalised bodies) in which the working directors are counted as employees; partnerships, run by two or more self-employed people; and sole proprietorships, run by one self-employed person.

Table 5 shows that partnerships saw the largest difference under the new methodology. The estimated number of partnerships at the start of 2009 would have been 80,000 (18 per cent) less under the new methodology. Partnerships saw more of a difference than sole-proprietorships due to the change to the HMRC data used to calculate the ratio of sole proprietors to partners. The self-assessment data used in the new methodology focussed only on unregistered enterprises, which contain fewer partnerships than identified in the SPI data used in *SME Statistics*.

The estimate of the number of companies was least affected by the change in methodology. The assumption that all companies are registered on the IDBR means there is no need to estimate unregistered enterprises in this category. The two per cent fall in companies under the new methodology is entirely due to using IDBR data based on the new criteria.

Table 4 **Number of enterprises by size: comparison of the results from SME Statistics 2009 and data based on the Business Population Estimates methodology**

Start 2009, United Kingdom

	Data published in <i>SME Statistics</i> 2009	Calculated using the <i>BPE</i> methodology, 2009	Difference, number	Difference, per cent
All enterprises	4,834,045	4,436,050	-397,995	-8
All employers	1,220,070	1,223,625	3,555	0
With no employees*	3,613,975	3,212,425	-401,550	-11
1	189,120	188,115	-1,005	-1
2-4	606,485	605,590	-895	0
5-9	224,000	223,800	-200	0
10-19	113,620	113,710	90	0
20-49	54,050	58,855	4,805	9
50-99	17,770	18,360	590	3
100-199	7,665	7,790	125	2
200-249	1,470	1,485	15	1
250-499	3,005	3,025	20	1
500 or more	2,885	2,895	10	0

* 'With no employees' comprises sole proprietorships and partnerships comprising only the self-employed owner-manager(s).

Source: BIS estimates

Table 5 **Number of enterprises by legal status: comparison of the results from SME Statistics 2009 and data based on the Business Population Estimates methodology**

Start 2009, United Kingdom

	Data published in <i>SME Statistics</i> 2009	Calculated using the <i>BPE</i> methodology, 2009	Difference, number	Difference, per cent
All enterprises	4,834,045	4,436,050	-397,995	-8
Companies	1,300,390	1,270,350	-30,040	-2
Partnerships	444,250	364,230	-80,020	-18
Sole proprietorships	3,089,405	2,801,470	-287,935	-9

Source: BIS estimates

Table 6 shows that although the overall number of enterprises decreased by eight per cent under the new methodology the level of change varied greatly by industry section, but almost all sections saw a fall in level. Mining and quarrying; electricity, gas and water supply (-26 per cent) and financial intermediation (-26 per cent) saw the largest percentage change in estimated number of enterprises.

Table 6 **Number of enterprises by industry section*: comparison of the results from SME Statistics 2009 and data based on the Business Population Estimates methodology**

Start 2009, United Kingdom

	Data published in <i>SME Statistics</i> 2009	Calculated using the <i>BPE</i> methodology, 2009	Difference, number	Difference, per cent
All enterprises	4,834,045	4,436,050	-397,995	-8
A, B - Agriculture, Hunting and Forestry; Fishing	195,480	184,850	-10,630	-5
C, E - Mining and Quarrying; Electricity, Gas and Water Supply	15,165	11,170	-3,995	-26
D - Manufacturing	303,245	277,005	-26,240	-9
F - Construction	1,017,210	914,785	-102,425	-10
G - Wholesale and Retail Trade; Repairs	562,815	535,410	-27,405	-5
H - Hotels and Restaurants	156,470	153,695	-2,775	-2
I - Transport, Storage and Communication	315,020	298,245	-16,775	-5
J - Financial Intermediation	83,890	62,245	-21,645	-26
K - Real Estate, Renting and Business Activities	1,195,825	1,068,570	-127,255	-11
M - Education	180,825	162,660	-18,165	-10
N - Health and Social work	279,560	281,010	1,450	1
O - Other Community, Social and Personal Service Activities	528,540	486,405	-42,135	-8

* SIC2003

Source: BIS estimates

In contrast health and social work was the only section to see a small increase in the number of enterprises (1 per cent). Although changing the LFS and IDBR source data caused a fall in the estimate of the number of enterprises in the health and social work sector, this was more than off–

set by the impact of using the self-assessment data, leading to an overall increase when all three major methodology changes were applied together.

Table 7 shows that under the new methodology there would have been lower estimates for the number of enterprises in every English region and UK country at the start of 2009. London showed the largest fall in the number of enterprises under the new methodology (-14 per cent). This can be explained by London having a higher proportion of unregistered enterprises than other regions, meaning the overall estimate for enterprises in London is disproportionately affected by the change in LFS methodology.

Table 7 **Number of enterprises by English region and UK country: comparison of the results from SME Statistics 2009 and data based on the Business Population Estimates methodology**

Start 2009

	Data published in <i>SME Statistics</i> 2009	Calculated using the <i>BPE</i> methodology	Difference, number	Difference, per cent
United Kingdom	4,834,045	4,436,050	-397,995	-8
North East	139,750	129,900	-9,850	-7
North West	482,220	438,120	-44,100	-9
Yorkshire and the Humber	345,565	315,660	-29,905	-9
East Midlands	307,335	289,980	-17,355	-6
West Midlands	363,375	339,255	-24,120	-7
East of England	501,655	473,490	-28,165	-6
London	837,605	721,850	-115,755	-14
South East	743,620	695,895	-47,725	-6
South West	464,735	435,685	-29,050	-6
England	4,185,860	3,839,835	-346,025	-8
Wales	200,180	186,985	-13,195	-7
Scotland	324,110	293,870	-30,240	-9
Northern Ireland	123,895	115,360	-8,535	-7

Source: BIS estimates

Other changes being implemented in *Business Population Estimates*

Changing the IDBR extract date and publication schedule

Business Population Estimates 2010 will include a further significant change to the way the IDBR extract is used to produce the statistics. This change will impact on the employment and turnover information reported and also on the timing of publication of subsequent editions.

SME Statistics is produced using analysis from an extract taken 15 months after the reference point. So for example the *SME Statistics 2009* publication, representing data at the start of 2009, uses data extracted from the IDBR in March 2010. The data on the extract is analysed based only on enterprises live at the start of 2009.

With *Business Population Estimates for the UK and Regions 2010* the IDBR extract used will also be taken in March 2010. This means that there will only be a lag of three months between the reference point and the extract being taken from the IDBR. As with *SME Statistics* the extract is analysed in a way that only enterprises live at the start of 2010 are included.

The change to using a three-month lag in *Business Population Estimates*, will not impact on the count of enterprises, as only enterprises active at the start of 2010 will be selected. However it will have an impact on the employment and turnover data reported.

Employment and turnover data on the IDBR extract reflect the latest position reported for any particular enterprise. So for example although the enterprises live at the start of 2009 can be selected, the precise employment and turnover from the start of 2009 cannot be identified. The data for employment and turnover on the register will reflect the latest data as reported.

The expectation is that the impact on the quality of the employment data will be different to the impact on the turnover data. For the very smallest units on the IDBR employment information is derived from PAYE jobs or employment imputed from VAT turnover. However the majority of employment information comes from the *Business Register and Employment Survey (BRES)*, which first collected information in September 2009. Previously this has been sourced from the *Business Register Survey (BRS)*. In addition employment data on the IDBR is now updated on a monthly rather than an annual basis. This is because information captured by the 81,000 enterprises surveyed by BRES is updated as completed forms are returned from respondents. A proportion of this more up-to-date employment data is available on the IDBR before the extract is taken, whereas previously it was updated the July after extract was taken. At the time the March 2010 extract was taken 81 per cent of responses to the September 2009 BRES had been received and used to update the IDBR.

By moving to a three-month lag, more of the employment data will be relevant to the September before the reference period, representing an improvement compared to *SME Statistics*. So for *Business Population Estimates 2010* employment data will mostly relate to that reported for September 2009.

However no changes have been made to the way turnover data is updated on the IDBR. In the March 2010 extract the turnover data provided to the ONS for the majority of enterprises is based on VAT returns for a 12 month period ending in December 2008, or January/February 2009,

according to the reporting pattern of the enterprise. For other enterprises turnover may relate to an earlier period. For those which are only registered for PAYE turnover is imputed from employment. This means that turnover data on the IDBR tends to be less timely than both enterprise counts and employment data.

The change in the IDBR extract used means that *Business Population Estimates* will be produced much more quickly after the reference date than *SME Statistics*. Although due to methodological work *Business Population Estimates 2010* has been produced on a slightly extended timescale, the expectation is that future publications will be available around 10 months after the reference period. **Table 8** shows the current and expected publication schedule.

Table 8 **Publication schedule for SME Statistics and Business Population Estimates**

Publication	Reference point	IDBR Extract	Publication schedule (provisional)	Lag between reference point and publication month
SME Stats 2008	Start 2008	March 2009	October 2009	22 months
SME Stats 2009	Start 2009	March 2010	October 2010	22 months
BPE 2010	Start 2010	March 2010	May 2011	17 months
BPE 2011	Start 2011	March 2011	October 2011	10 months
BPE 2012	Start 2012	March 2012	October 2012	10 months

Source: BIS

Standard Industrial Classification (SIC) 2007

Business Population Estimates for the UK and Regions 2010 will be the first time estimates of the total number of enterprises have been produced using the Standard Industrial Classification 2007 (SIC2007). Estimates published in *SME Statistics* were produced using Standard Industrial Classification 2003 (SIC2003).

This move presents a challenge to users as for any particular industry it will not be possible to identify whether any changes are due to moving to the SIC2007 classification or due to the change in methodology.

To help users BIS will publish full tables in the SIC2003 format for *Business Population Estimates 2010*. These tables will be available on the web site within a few weeks of the main publication release.

Conclusions

Small and Medium Enterprise Statistics for the UK and Regions will no longer be produced. Instead a new publication, called *Business Population Estimates*, will be published by BIS in May 2011 using an improved methodology for estimating the total enterprise population.

The improved methodology uses better estimates of the self-employed population from the Labour Force Survey and more comprehensive data from HMRC to calculate more accurately how many unregistered enterprises there are. It also better captures the most appropriate enterprises from the IDBR.

This improved methodology provides more accurate estimates of the total number of enterprises in the UK. It estimates 4.4 million enterprises at the start of 2009, eight per cent fewer than previously estimated under the *SME Statistics* methodology.

Business Population Estimates for the UK and the Regions 2010 will use this improved methodology for the first time in a National Statistics publication. It will also have a more timely release than *SME Statistics*. For example *Business Population Estimates 2011* is expected to be published 12 months earlier than *SME Statistics 2011* would have been.

Business Population Estimates for the UK and Regions 2010 will be released May 2011 and will be available on the National Statistics Publication Hub and at <http://stats.bis.gov.uk/ed/bpe>

Contact

julian.shaw@bis.gsi.gov.uk

Notes

1. *Business Population Estimates* uses the same broad methodology as *SME Statistics*. It therefore represents a continuation of the *SME Statistics* series and can be classed as National Statistics. The National Statistics status of *Business Population Estimates* will be formally assessed by the UK Statistics Authority in October 2011.
2. For the years 1997–1999, 2001, 2003, 2005, 2007–2009 *SME Statistics* also contained data for each English region and UK country. Data is available here: <http://stats.bis.gov.uk/ed/sme>
3. Enterprises are required to register for VAT if their turnover reaches the compulsory registration threshold (£70,000 in 2010/11). However some enterprises will register voluntarily below this threshold. Enterprises are not required to register for PAYE if they have no employees or when their employees are paid below the PAYE threshold (£540 a month in 2010/11). See ONS 2009 for a guide to the IDBR.

4. Enterprises are classified as the following legal forms – companies/public corporations and businesses run by self-employed people, which are either partnerships (if two or more self-employed working proprietors) or sole proprietorships (one working proprietor).
5. Data used to calculate the ratio of sole proprietors to partners and average number of partners in a partnership comes from analysis of HMRC Survey of Personal Incomes data and HMRC Self-Assessment data.
6. For further information see <http://www.hmrc.gov.uk/leaflets/es-fs1.pdf>
7. An example of the reconciliation can be found in Annex 1 here:
www.statistics.gov.uk/downloads/theme_labour/LMS_Q&A.pdf
8. The official measure of self-employment is reported in Labour Market Statistics, (see Table 3, Labour Market Statistical Bulletin www.statistics.gov.uk/statbase/Product.asp?vlnk=1944). To adhere to Eurostat requirements, the official measure of self-employment is based entirely on the self-reported status of individuals in their main job.
9. Further information on the self-assessment form can be found here:
<http://search2.hmrc.gov.uk/kbroker/hmrc/forms/viewform.jsp?formId=3813>

References

Department for Business Innovation and Skills (2008) Consultation on Small and Medium Enterprise Statistics for the UK and Regions at www.berr.gov.uk/files/file49351.pdf

Department for Business Innovation and Skills (2009) Government Response to Consultation on Small and Medium Enterprise Statistics for the UK and Regions at www.berr.gov.uk/files/file51821.pdf

Department for Business Innovation and Skills (2010a) Small and Medium Enterprise Statistics for the UK and Regions 2009 Methodology Note at <http://stats.bis.gov.uk/ed/sme/smestats2009-meth.pdf>

Department for Business Innovation and Skills (2010b) Small and Medium Enterprise Statistics for the UK and Regions 2009 at <http://stats.bis.gov.uk/ed/sme>

Machin A (2008) 'Comparison of statistics on jobs: September 2007', *Economic & Labour Market Review* 2 (3) pp 18-23 and at:
www.statistics.gov.uk/elmr/03_08/downloads/ELMR_Mar08_Machin.pdf

Office for National Statistics (2006) 'Review of Employment and Job Statistics', National Statistics Quality Review Series, Report Number 44 at www.ons.gov.uk/about-statistics/methodology-and-quality/quality/nat-stats-qual-revs/qual-revs-by-theme/labour-market/ann-of-emp-and-jobs.pdf

Office for National Statistics (2009) A Guide to the IDBR, Inter-Departmental Business Register; a key survey source at www.statistics.gov.uk/CCI/nugget.asp?ID=195

Office for National Statistics (2010a) UK Business: Activity, Size and Location 2010 at www.statistics.gov.uk/StatBase/Product.asp?vlnk=933

Office for National Statistics (2010b) Business Demography 2009 at www.statistics.gov.uk/StatBase/Product.asp?vlnk=15186