

# LABOUR MARKET INTELLIGENCE

Accessing and using  
data from the  
UK Commission's  
Employer Skills Survey  
2013



IFF Research



UK COMMISSION FOR  
EMPLOYMENT AND SKILLS

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## What is the UK Commission's Employer Skills Survey?

The UK Commission's **Employer Skills Survey (ESS)** provides a robust picture of skills needs and training investment in UK businesses and is one of the largest surveys of its kind in the world.

The 2013 survey is the UK Commission's second UK-wide employer skills survey (the first was in 2011). The survey looks at training and staff development, vacancies that are unfilled because of skills shortages, gaps in employees' skills, recruitment of education leavers, and a host of other measures to provide a comprehensive and robust picture of skills needs and training investment in UK businesses.

### Providing an all-round picture of the skills experiences of employers

The focus of ESS is very much internal, considering how different employment practices and investment approaches shape establishments' skills requirements and their experience of skills deficiencies. The UK Commission's biennial **Employer Perspectives Survey (EPS)** complements the findings of ESS by being more externally focused. EPS looks at *how* employers engage with external resources to recruit and train staff. Critically it looks at the organisations, networks and support systems that employers engage with in the course of these recruitment and development activities, and the extent to which they are providing what employers need. The most recent EPS was conducted in 2014 (with previous waves in 2010 and 2012).

Together, the two surveys fit together to provide a robust, all-round picture of the skills needs and experiences of employers across the UK.

The Employer Skills Survey provides a wealth of data about employers' skills needs. In particular, the survey provides robust data relating to:

- **Vacancies:** the incidence of employers with vacancies, as well as the density of vacancies
- **Hard-to-fill vacancies:** as the name suggests, these are vacancies that employers have found difficult to fill
- **Skill-shortage vacancies:** these are vacancies that are hard-to-fill due to applicants not having the right skills or work experience
- **Skills gaps:** when employees do not have the right skills to be fully proficient to do their job.

The survey also provides valuable information on the following:

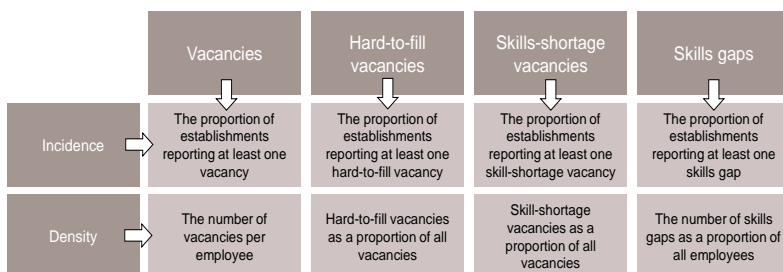
- **Underutilisation:** when staff have both qualifications and skills that are more advanced than required for their job role
- **Upskilling:** where employers expect to need staff to acquire new skills or knowledge (covered in 2013 only)
- **Workforce development:** whether employers train their staff, how this training is delivered and whether they would like to train more
- **High performance working practices:** the extent to which employers have adopted practices which would be expected to improve employee and organisation performance
- **Business strategy and Structure:** (for private sector) the extent to which businesses operate bespoke, high quality services or products.
- **Retention:** the extent to which employers have been able to retain staff (covered in 2011 only).

## Incidence vs. density measures

In order to fully understand the labour market it is important to know (i) the extent to which employers are affected by an issue, but also (ii) the extent to which the workforce is affected by the same issue. The Employer Skills Survey provides data from these two important perspectives:

1. **Incidence:** the proportion of establishments that report a particular issue or practice (e.g. 4% of UK employers had skill-shortage vacancies).
2. **Density:** the number or proportion of employees to which an issue or practice applies (e.g. 22% of all vacancies in the UK were classified as skill-shortage vacancies).

The diagram below details some of the incidence and density measures used in ESS.



When using the data outputs from ESS it is important to check which type of measure you are looking at in the data tables. Here we provide some important information required for understanding how to interpret the data presented in the data tables.

On every data table a 'base description' (such as 'all establishments' or 'all establishments with vacancies') is displayed on the top left of the data tables which describes what the data presented is based on. When using the data tables it is important to check which type of measure you're looking at:

- **Incidence:** if the base on the tables relates to all establishments or a specific group of establishments (such as 'all establishments with vacancies') then the data presented will be an incidence measure.
- **Density:** if the base on the tables relates to all employment or something else relating to the workforce (such as 'all vacancies') then the data presented will be a density measure.

See the examples overleaf.

UK Commission's Employer Skills Survey

Table 65/ 1

**Skills deficiency summary**  
Base: All establishments

**This is an incidence measure**

**i.e. 16% of all establishments in Dorset LEP had skills gaps**

	Total	Dorset	Enterprise M3	Gloucestershire
Unweighted row	75255	1172	2226	987
Total	1465963	23122	53600	19650
Have any skills gap	220359	3756	8631	2911
	15%	16%	16%	15%
Have skill-shortage vacancy	60065	902	3369	736
	4%	4%	6%	4%
Either skills gap or skill-shortage vacancy	259884	4177	11031	3329
	18%	18%	21%	17%
Both skills gap and skill-shortage vacancy	20540	481	969	318
	1%	2%	2%	2%

Tables produced by IFF Research

UK Commission's Employer Skills Survey

Table 1/ 1

**Employee summary table**  
Base: All Employment

**This is a density measure**

**i.e. 5% of all staff in Dorset LEP had skills gaps**

	Total	Dorset	Enterprise M3	Gloucestershire
Unweighted row	2068503	31293	63709	23975
Total	22754437	298916	726534	258821
Number of vacancies	559620	9344	21025	5746
	2%	3%	3%	2%
Number of HtF vacancies	158950	3270	7449	1437
	1%	1%	1%	1%
Number of SSVs	123768	2211	6235	1162
	1%	1%	1%	1%
Number of staff with skills gaps	1169688	14035	45405	10593
	5%	5%	6%	4%

Tables produced by IFF Research

## Navigating the questionnaire and data tables

ESS 2013 is structured around 7 sections (A, C, D, E, F, G and H) – section B (relating to Retention) was only asked in 2011. The data tables follow the same structure as the questionnaire (see below).

### (A) Firmographics

- A short section capturing information about the establishment and (if applicable) its wider organisation (number of employees, whether private or public sector, industrial sector).

### (C) Recruitment and recruitment difficulties

- Covering whether recruited in last 2-3 years, recruitment of education leavers, vacancies, hard to fill and skills shortage vacancies (inc. the occupations these affect, the types of skills lacking and the causes and effects of these).

### (D) Demand for skills / skills gaps

- The number of staff at the establishment in each of the main occupation types, the proportion of staff educated to Level 4 or higher, skills gaps, the causes of skills gaps, which occupations these affect, and the effect of skills gaps on the employer.

### (E) Upskilling

- A short section looking at expected need for employees to acquire new skills in the next 12 months
- This section was only asked in 2013.

### (F) Workforce development

- Training, staff development and supervision –including how many staff receive this, which occupations benefit and the number of days per year that are spent training.

### (G) Skills utilisation / high performance working

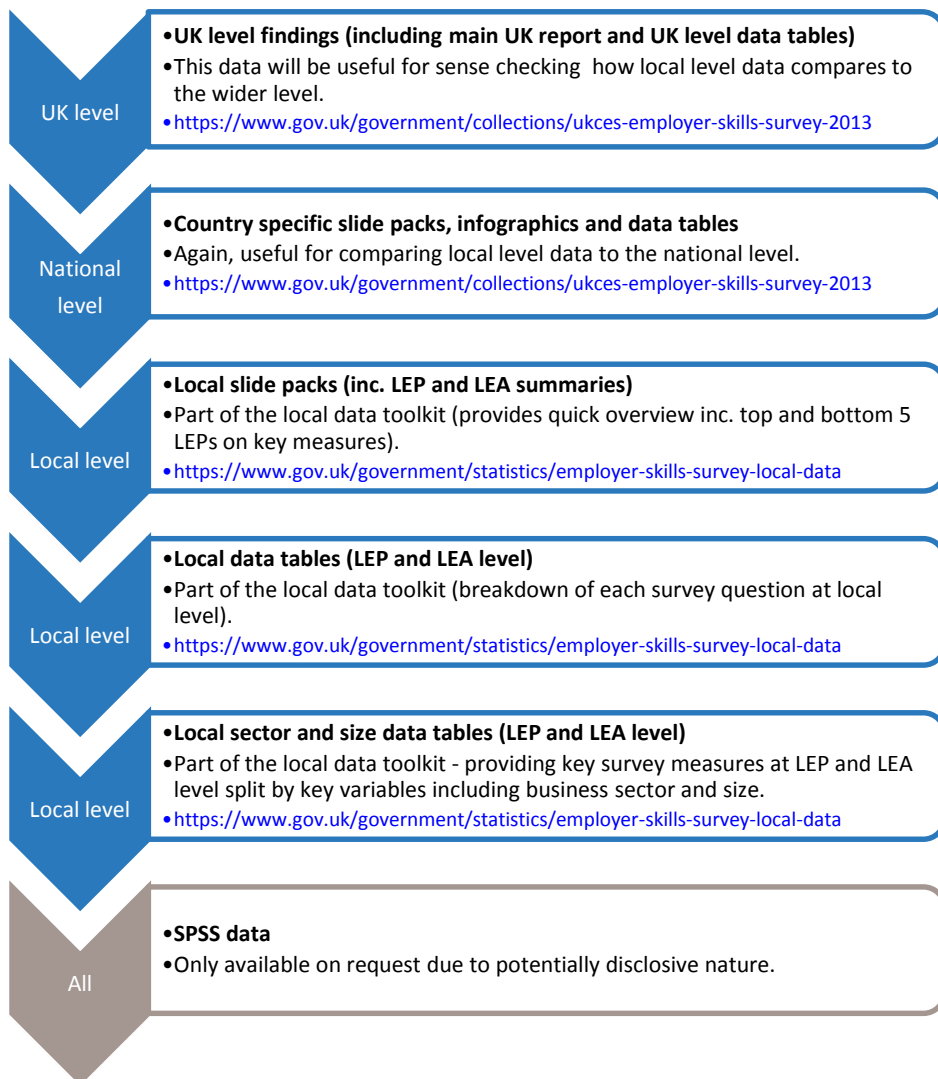
- Four questions looking at the extent of high performance working practices (e.g. teams, use of workplace policies, bonuses and pay incentives).

### (H) Business strategy and structure

- Five questions to capture how bespoke and/or leading edge the services and/or products they offer are.



There are various data outputs emanating from ESS which can be used for a variety of purposes. As detailed below, data is available from the UK level down right down to high level findings for in LEP and LEA in England.



The following sections of the guidebook explain each output in turn.

## Main UK report

The main UK report presents the key findings from ESS and provides a comprehensive overview of the skills experiences of employers across the UK, pulling out key significant differences by nation, sector and size of establishment.

This report was published in January 2014 and is available at: <https://www.gov.uk/government/publications/ukces-employer-skills-survey-2013>

## Slide packs

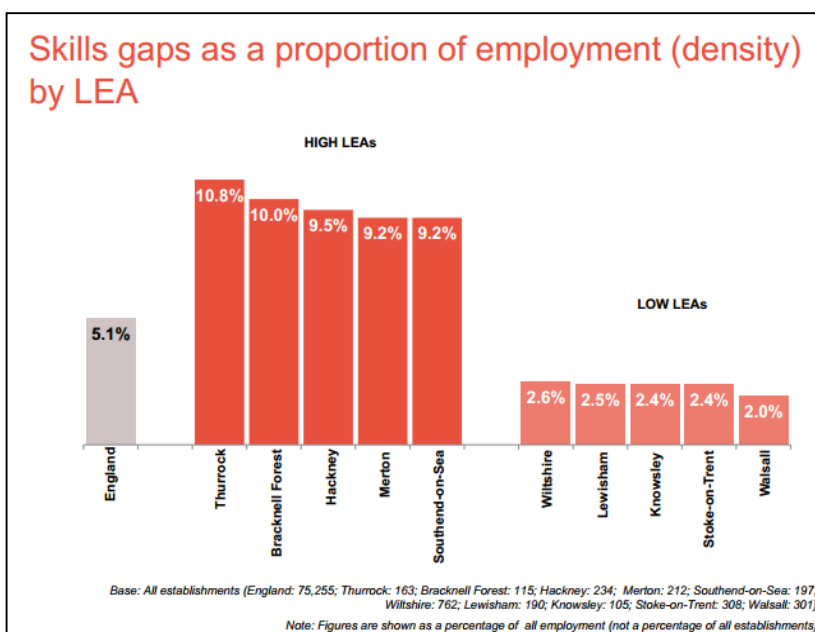
The slide packs from ESS summarise key findings at the country and local levels. The slide packs are presented as chapters:

1. **Employers' experiences of skills shortages** (including: the incidence and density of vacancies and skill-shortage vacancies; the skills lacking; and the impact of skill-shortage vacancies)
2. **The internal skills challenge** (including: the incidence and density of skills gaps; the main causes of having skills gaps; the skills lacking; the impact of skills gaps; and underutilisation)
3. **Training and workforce development** (including: incidence of training provision; number and proportion of staff trained; and number of training days)
4. **Recruitment of young people / education leavers** (including: incidence of recruitment of young people / education leavers; work-readiness of education leavers; and barriers to recruiting young people)

As per the examples below, the data allows for the identification of regional differences (in the nation slide packs) and differences by LEA and LEP (in the local slide pack).

Alongside being a rich source of data, the slide packs can act as an example or template for how specific LEAs / LEPs can present their own data and compare it to others.

*Example from the local LEA/LEP slide pack:*



## Key findings data tables (local level)

In addition to the local level slide packs presenting data for individual LEAs and LEPs, a comprehensive set of data tables is available which provides a summary of key findings for each LEA and LEP with a comprehensive set of cross breaks (including sector and size). As an example, using these tables allows us to see that in the Nottinghamshire LEA, 5% of all employers in the Business Services sector had a skill-shortage vacancy.

This sub-section of the guide will provide an overview of what data is included in these data tables, an explanation on how to read data from the tables (including how statistically significant difference are presented).

### Overview of the data available

Key findings from ESS are presented in the summary data tables for each LEA and LEP, including:

- **Vacancies** (including: the incidence of vacancies, hard-to-fill vacancies and skill-shortage vacancies; the number of vacancies [also presented as a percentage of all employment]; and the number of skill-shortage vacancies [also presented as a proportion of all vacancies])
- **Education leavers** (including: the incidence of employers having recruited any education leavers over the past 2-3 years [as well as the proportion who have recruited at all for comparison]; and the split of recruitment of different types of education leavers)

- **Skills gaps** (including: the incidence of establishments with skills gaps; the number of staff with skills gaps; and the number of staff with skills gaps as a proportion of all employment)
- **Training** (including: the incidence of training provision overall [as well as split by on-the-job and off-the-job]; the total numbers of staff trained; total number of training days; average number of training days per trainee; and average number of training days per employee)
- **Underutilisation** (the incidence of employers with any underutilised staff)
- **Upskilling** (the proportion of employers predicting a future need for upskilling)

## How to use the tables

The data tables come in Microsoft Excel format with separate worksheets used to present the key findings for each LEA and LEP.

As per the example overleaf, the ‘total’ column presents the overall findings for the particular LEA/LEP. In the example screenshot below, we can see that 16% of all establishments in the Birmingham LEA had any vacancies at the time of the survey.

To allow for more detailed analysis, the data has also been broken down with a number of cross-breaks, including – but not limited to – **sector** (at a 14-sector classification and 6-sector classification), **size of establishment**, and **type of establishment** (e.g. profit seeking, charity/voluntary, or local/central government funded). In the example below, we can see that in the Birmingham LEA 2% of all employers in the Construction sector had a skill-shortage vacancy.

UK Commission's Employer Skills Survey				
BIRMINGHAM				
Summary table – (Birmingham)				
Base: All establishments				
	Sector			
	Total	Construction	Wholesale and Retail	Hotels and restaurants
Significance Level: 95%		e	f	g
Unweighted row	1248	78	239	120
Total	22783	1574	5797	1838
<b>Vacancies</b>				
Establishments with any vacancies	16%	5%	14%	24%
Have at least one vacancy that is hard to fill	4%	2%	3%	5%
Have a skills shortage vacancy (prompted or unprompted)	4%	2%	2%	4%
Number of vacancies	10064	285	1511	1078
Number of skill-shortage vacancies	1879	88	238	72
Number of vacancies as a % of all employment	2%	1%	2%	4%
% of all vacancies which are SSVs	19%	**	16%	7%
<b>Education Leavers</b>				
Recruited at all in last 2-3 years	65%	54%	66%	64%

Overall data for Birmingham LEA

Sector cross-break

### Percentage and raw figures

The data tables show both a raw figure and a percentage figure. This allows us to report the approximate *number* of establishments in a particular LEA or LEP who have either skill-shortage vacancies or skills gaps as well as allowing us to report this as a percentage of all establishments in a particular LEA or LEP. Note that in the main report and slide packs the general convention has been to report raw density measures (e.g. number of vacancies) to the nearest 100.

UK Commission's Employer Skills Survey (UKCESS) 2013

Table 2/ 1

**Skills situation summary table**  
Base: All establishments

	Total	City of London	Camden	Greenwich
Unweighted row	75255	494	621	194
Total	1465963	11338	15000	1005
SSVs only	39525	567	15000	1005
	3%	5%		
Skill gaps only	199819	1795		
	14%	16%		
SSVs AND Skill gaps	20540	395		
	1%	3%	2%	1%
SSVs OR Skill gaps	259884	2757		
	18%	24%		
Neither SSVs nor Skills gaps	1206080	8581		
	82%	76%		

Tables produced by IFF Research

Raw number (in this instance the number of establishments in the City of London LEA that have either SSVs or skills gaps).

Percentage figure (in this instance the 2,757 establishments with either SSVs or skills gaps expressed as a percentage of all establishments in the City of London LEA).

### ***Base sizes and weighting***

Another important thing to understand when using the tables is that the data has been weighted to make it representative of the population of each LEA/LEP. As per the example screenshot overleaf, the 'unweighted row' denotes that 959 interviews were completed with establishments in the Cornwall LEA and that the survey responses from these employers have been weighted to be representative of the 'total' population of 18,527 establishments with 2+ employment in the Cornwall LEA.

Similarly, data that has been presented as a percentage of all employment (such as the number of vacancies as a % of all employment) has been weighted to be representative of the total employment population of each LEA/LEP.

UK Commission's Employer Skills Survey (UKCESS) 2013			
CORNWALL			
<b>Summary table – (Cornwall)</b>			
Base: All establishments			
		Sector	
	Total	Construction	Wholesale and Retail
Significance Level: 95%		e	f
Unweighted row	959	87	161
Total	18527	1913	3765
<b>Vacancies</b>			
Establishments with any vacancies	12%	6%	17%
Have at least one vacancy that is hard to fill	4%	1%	6%
Have a skills shortage vacancy (prompted or unprompted)	3%	1%	4%

### ***Statistical significance***

Statistically significant differences (at the 95% confidence level) have been presented on all the various data table outputs. Because of the sheer size of ESS the base sizes even at the LEA level are sufficient for identifying statistically significant differences.

Detailed below is an overview on how to read the significant differences (see the final section of this guide titled ‘notes on the importance of base sizes and statistical significance’ for a detailed explanation of the statistical significance testing undertaken on the data).

For identifying significant differences on the tables it should be noted that each cross-break (i.e. each column) has been assigned a letter. In the example screenshot overleaf the Agriculture sector has been assigned the letter ‘a’ through to the Construction sector which has been assigned the letter ‘e’. Where a letter appears below a data point, this means that the figure is significantly greater than the figure in the cross-break denoted by the letter. For instance, in the example screenshot letter ‘e’ beneath the 13% figure denotes that in the Essex LEA the proportion of employers in



the Manufacturing sector with vacancies (13%) is significantly greater than the proportion of employers in the Construction sector with vacancies (6%).

UK Commission's Employer Skills Survey (UKCESS) 2013						
ESSEX						
Summary table – (Essex)						
Base: All establishments						
	Sector					
	Total	Agriculture	Mining and quarrying	Manufacturing	Electricity, Gas and Water	Construction
Significance Level: 95%		a	b	c	d	e
Unweighted row	1936	40	2	176	32	214
Total	39887	1622	18	2645	221	5285
<b>Vacancies</b>						
Establishments with any vacancies	15%	5%	**	13%	9%	6%
Have at least one vacancy that is hard to fill	4%	5%	**	5%	4%	1%

This 13% figure is significantly different from the 6% figure presented for cross-break 'e'

## Other main data tables

In addition to the LEA key findings data tables detailed in the previous section, there are a number of other main data tables from ESS available allowing users to explore the headline skills issues and help identify the differences between different types of employers. These other main data outputs are:

- **UK data tables**

The main UK data tables present the data used in the main UK report. These data tables allow for comprehensive sub-group analysis of every question asked in the survey.

- **National level data tables**

A set of data tables have been produced for each of the UK nations which includes regional breakdowns specific to each nation, in addition to the full set of data cross-breaks.

- **LEP and LEA level data tables**

These data tables present the full data set with each LEP and LEA as a cross-break allowing the user to see, for example, that 6% of employers in the Oxfordshire LEP had skill-shortage vacancies.

Detailed below are some notes to assist users in understanding the structure of the outputs. This should be read in addition to the '*how to use the data tables*' sub-section of this guide detailed earlier (see pages 11-15).

## Structure of the main data tables

The main data tables present data for each question asked in ESS. On some tables responses to a particular question have been combined in order to create **summary codes**. You can spot these summary codes as they are presented at the bottom of a list and are in BLOCK CAPITALS.

UK Commission's Employer Skills Survey (UKCESS) 2013				
Table 18/ 1				
C3-4. Preparedness for work of university or higher education leavers recruited to first job from University				
Base: All establishments who have recruited university or higher education leavers in last 2-3 years				
	Total	Black Country	Buckinghamshire Thames Valley	Chesh
Unweighted row	15968	224		169
Total	199126	2596		2483
Very well prepared	46963	693		486
	24%	27%		20%
Well prepared	118988	1641		1347
	60%	63%		54%
Poorly prepared	21187	184		517
	11%	7%		21%
Or very poorly prepared	3865	16		14
	2%	1%		1%
Don't know	3705	18		28
	2%	1%		1%
Varies too much to say	4419	45		92
	2%	2%		4%
VERY WELL/WELL PREPARED	165950	2333		1833
	83%	90%		74%
POORLY/VERY POORLY PREPARED	25051	200		530
	13%	8%		21%
Tables produced by IFF				

In addition to tables for each survey question there are also a number of **summary tables** which present information from one or more questions in order to bring important, related information together into one place to allow for an at-a-glance summary of an issue. These tables typically have the word 'summary' in their title. Listed below are some of the key summary tables which can be useful for getting a good overview of what the ESS data can tell you about the labour market in your area. This is not an exhaustive list

and is intended as a starting point from which to explore the dataset more fully:

- **Employee summary table**

This gives an overview of the workforce at a glance by detailing the extent of vacancies (vacancies as a proportion of all employment), and the types of vacancies that exist (e.g. the number of skill-shortage vacancies as a proportion of all employment).

- **Summary of vacancy situation (employer base)**

This table gives a summary of the proportions of employers who have vacancies and particular types of vacancies (such as the proportion of all employers who have at least one hard-to-fill vacancy and at least one skill-shortage vacancy).

- **Skills situation summary**

This table gives a more high level overview of employers in terms of the proportion of establishments that have vacancies, hard-to-fill and skill-shortage vacancies, or skills gaps (the table splits out those with just skill-shortages and just gaps and those that have both).

- **Profile of vacancies by occupation (vacancy base)**

This table gives an overview of how vacancies split out by occupation type. For example, if there are 1,000 vacancies in a particular LEA/LEP and 60 of these are in professional occupation, then 6% of all vacancies fall in this grouping.

For all surveys there is an element of sampling error which affects the statistical confidence one can have in the results presented. A key factor which influences sampling error is the base size and, given the large scale nature of ESS, the sampling errors at the overall level and at the sub-group level are typically low (i.e. users can typically have confidence in the statistical robustness of the results).

Sampling errors for the survey results overall and for a selection of sub-groups are presented in the table overleaf. Figures have been based on a survey result of 50 per cent (the 'worst' case in terms of statistical reliability), and have used a 95 per cent confidence level. Where the table indicates that a survey result based on all respondents has a sampling error of  $\pm 0.32$  per cent, this should be interpreted as follows: 'for a question asked of all respondents where the survey result is 50 per cent, we are 95 per cent confident that the true figure lies within the range 49.68 per cent to 50.32 per cent'.

*Sampling error (at the 95% confidence level) associated with a 'worst case' survey finding of 50%*

	Population	Number of interviews	Sampling error
UK	1,743,847	91,279	±0.32
England	1,465,963	75,255	±0.36
<b>By LEA (top 3 and bottom 3 in terms of sampling error shown)</b>			
Essex	39,887	1,936	±2.23
Kent	40,099	1,775	±2.33
Hampshire	38,682	1,763	±2.33
Slough	3,152	115	±8.97
Knowsley	2,265	105	±9.56
Rutland	1,271	64	±12.25
<b>By LEP (top 3 and bottom 3 in terms of sampling error shown)</b>			
London	248,679	10,369	±0.96
South East	108,071	4,901	±1.40
North Eastern	42,358	4,300	±1.49
Worcestershire	17,115	960	±3.16
Oxfordshire	21,939	897	±3.27
Buckinghamshire	17,808	652	±3.84
Thames Valley			

## Data suppression due to low base sizes

With the importance of base sizes in mind, wherever a base size is particularly low (base of fewer than 25 employers) the data has been suppressed on the data tables with a double asterisk (\*\*) due to the lack of statistical confidence one can have in results from such a low base size.

	UK Nation			
	England	Northern Ireland	Scotland	Wales
	a	*b	c	*d
Unweighted base	102	17	36	24
Weighted base	14119	394	1479	923
	4421	**	478	**
	31%	**	32%	**





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