UK COMMISSION FOR EMPLOYMENT AND SKILLS

Employer Skills Survey 2015: UK Results

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The UK Commission's Employer Skills Survey 2015: UK Results

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UK Commission for Employment and Skills

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Foreword

It is my pleasure to introduce the 2015 Employer Skills Survey (ESS), the third in the series of UK-wide skills surveys run by the UK Commission for Employment and Skills (UKCES).

The survey gives us insight into the skills issues employers face and the action they are taking to address them, providing a unique skills perspective alongside other labour market information. There is no other business survey on this scale: our researchers conducted over 91,000 interviews with employers from Caithness to Cornwall, Tyrone to Tyneside. The wealth of data this provides allows us not only to track changes over time but also to delve down into geographical, industry-sector, and occupational detail.

This year's survey points to continued growth in recruitment. This adds to other indicators of consumer and business confidence at the end of 2015, including the UK's relatively strong record in employment since 2010.

But what ESS 2015 also shows is the other side of the coin – the dark side of this increase in recruitment is that a growing number of jobs are being left unfilled because companies can't find the right people with the right skills.

An area of real concern is skill shortages faced by the construction sector, a hugely important sector that contributes nearly £90bn to the UK economy, over a million jobs, and is strategically important in its contribution to housing, infrastructure and initiatives to stimulate UK growth. The ESS findings show employers are struggling to fill one in three construction vacancies, up from one in four in 2013, because they can't find people with the right skills.

This cautionary note is just one from a survey that probes far deeper into the "black box" of how employers respond to the skills challenges that they face, and hints at how these could contribute to the continuing unsolved puzzle of UK productivity.

On this note, a fascinating area of the survey reports on the skills left unused by UK employers. One in three employers had at least one member of staff whose skills were underused. Beneath the headline picture the survey reveals variations, for example, 40 per cent of employers in the Hotel and Restaurants sector report having staff with unused skills compared to 20 per cent in Agriculture. Knowing that UK productivity has flatlined since 2008 at the same time as employers know of talent untapped in their workers is not easy to take in. ESS looks at the underuse of skills from a business perspective (complementing other data from workers) but this is an area where our understanding is developing and more work is needed to look at this troubling trend.

At UKCES we are proud to have had stewardship of ESS since 2009 and of its extensive use and value. Having a comprehensive picture of skills requirements and responses alongside other business practices is essential to effective skills systems. In this, the survey is a source of international envy. We hope this important source of data remains at the cornerstone of high quality Labour Market Intelligence.

For now, it remains for me to thank the research staff at UKCES and their survey partners for the hard work that has gone into this report; my sincere gratitude also goes to each and every employer who gave their valuable time to answer our survey questions, without whom we would have no results to report.

Douglas McCormick

UKCES Commissioner and Chief Executive Officer, Sweett Group

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Glossary

This glossary gives a short guide to the key terms used in this report:

Establishment (also referred to as workplace, business, employer or site)	A single location of an organisation – for this survey all have at least two people working at that location.
Vacancy density	The number of vacancies as a proportion of all employment.
Hard-to-fill vacancies	Vacancies which are proving difficult to fill, as defined by the establishment (from the question: “Are any of these vacancies proving hard to fill?”).
Hard-to-fill vacancy density	The number of hard-to-fill vacancies as a proportion of all vacancies.
Skill-shortage vacancies (SSVs)	Vacancies which are proving difficult to fill due to the establishment not being able to find applicants with the appropriate skills, qualifications or experience.
Skill-shortage vacancy density	The number of skill-shortage vacancies as a proportion of all vacancies.
Skills gaps	A “skills gap” exists where an employee is deemed by their employer to be not fully proficient, i.e. is not able to do their job to the required level. See Annex H.

Skills gap density	The number of staff reported as not fully proficient as a proportion of all employment.
Under-use of skills (skills under-utilisation)	An employee's skills are under-used / underutilised if the employer reports a person has *both* skills and qualifications that are more advanced than required to perform the job role they are currently in.
Product Market Strategy (PMS)	An establishment's PMS score is worked out from the combined answers to four questions: • How customised their output is; • How price dependent their offering is; • How innovative the establishment is; • Whether outputs are premium or basic quality. A high PMS score indicates outputs are customised, not price-dependent, premium quality and the establishment often leads the way in product development.
Level 4 and above qualifications	Qualifications at or above Level 4 on the National Qualifications Framework. Includes HNDs, HNCs, foundation degrees and degrees, postgraduate degrees, and some vocational and professional qualifications.
Sector	For definitions of the different sector groupings used in this report please refer to Annex C.
Occupations	For definitions of the occupational groups used in this report please refer to Annex D.

Key findings

	ESS 2011	ESS 2013	ESS 2015
Vacancies and skill-shortage vacancies			
% of establishments with any vacancies	14%	15%	**19%**
% of establishments with any hard-to-fill vacancies	4%	5%	**8%**
% of establishments with SSVs	3%	4%	**6%**
% of all vacancies which are SSVs	16%	22%	**23%**
Number of vacancies	586,500	655,000	**927,200**
Number of skill-shortage vacancies	91,400	146,200	**209,500**
Skills gaps			
% of establishments with any staff not fully proficient	17%	15%	**14%**
Number of skills gaps	1,485,500	1,409,900	**1,380,200**
Number of staff not fully proficient as a % of employment	6%	5%	**5%**
Training			
% of establishments training staff over the last 12 months	65%	66%	**66%**
% of establishments providing off-the-job training in the last 12 months	47%	49%	**49%**
% of workforce trained	55%	62%	**63%**
Total days training	115m	113m	**118m**
Total training expenditure	£43.8bn	£43.0bn	**£45.4bn**

Vacancies, skill-shortage vacancies and skills gaps rounded to the nearest 100.

2011 data has been reweighted to be comparable to 2013 data.

Executive Summary

Introduction

In examining the experiences and practices of over 91,000 employers, the UK Commission's Employer Skills Survey (ESS) is the definitive source of intelligence on the skills challenges employers across the UK are facing and their response in terms of investment in skills and training.

The survey was first conducted at UK wide level in 2011, and was developed from a series of surveys conducted in each of the countries of the UK during the 1990s and the 2000s. The UK survey has been conducted biennially, and the 2015 survey represents the third edition in the series. This period of time coincides with the UK economy leaving recession and experiencing relatively sustained economic growth. It explores the skills challenges that employers face both within their existing workforces and when recruiting, their use of the skills of their staff, the levels and nature of investment in training and development, and the relationship between skills challenges, training activity and business strategy.

The study reports on the experiences of employers at the establishment level, rather than at the enterprise level. The survey covers establishments with at least two people on the payroll.

Recruitment and skill-shortage vacancies

There was substantial growth in the number of employers active in the recruitment market in 2015 compared to 2013: 19 per cent of establishments had at least one *current* vacancy at the time of ESS 2015 fieldwork, up from 15 per cent in 2013. Moreover, there were 927,000 reported vacancies, almost 300,000 more than two years previously (an increase of 42 per cent). This strong growth in recruitment activity was evident in all the UK countries.

Within this buoyant labour market, skill-shortage vacancies presented a growing challenge for employers in filling their vacancies. Six per cent of all employers had at least one skill-shortage vacancy at the time of the survey – a significant increase from the four per cent of employers that reported having such vacancies in 2013. In volume terms, there were 209,500 reported skill-shortage vacancies which was an increase of 43 per cent from the 146,000 reported in 2013. The increase in the number of skill-shortage vacancies was proportional to the increase in vacancies. Therefore, the density of skill-shortage vacancies (i.e. the proportion of vacancies that were hard-to-fill because of skill shortages) was largely unchanged at 23 per cent compared with 22 per cent in 2013 at an overall UK level.

There was variation by country, however. The density of skill-shortage vacancies remained at a similar level to 2013 in both England and Scotland, had increased in Wales but had decreased in Northern Ireland.

By occupation, there had been a particularly marked increase in the density of skill-shortage vacancies among Machine Operatives since 2013 (from 25 per cent of all vacancies to 32 per cent). Skilled Trades continued to be the occupation with the highest density of skill-shortage vacancies (43 per cent).

Skill-shortage vacancies were caused by a number of people and personal skills and technical and practical skills lacking amongst applicants. Skills related to operational aspects of the role, as well as complex analytical skills, were the main technical and practical skills lacking. The main people and personal skills lacking pertained to time management, management and leadership, and sales and customer handling skills.

Although the number of skill-shortage vacancies is relatively small, the impacts of skill-shortage vacancies continued to be significant for employers. Over two-thirds of employers that had difficulty filling their vacancies solely as a result of skill shortages had experienced a direct financial impact through either loss of business to competitors, or increased operating costs.

Skills gaps in the workplace

The vast majority of employers (86 per cent) reported that they had a fully proficient workforce. However, 14 per cent of employers reported skills gaps within their establishment, with approximately 1.4 million staff lacking proficiency in their current role (five per cent of the UK workforce).

The proportion of employers with any skills gaps, and the proportion of the workforce affected, decreased gradually at UK level between the 2011 and 2015 surveys. This varied by nation, however. The picture in England was relatively static, while the levels of skills gaps in Scotland and Wales fell between 2013 and 2015, when it aligned with the experience among employers in England. Employers in Northern Ireland were the least likely to report a lack of proficiency in their staff: just nine per cent of employers cited skills gaps within their establishment (down from 14 per cent in 2013) with these affecting 3.3 per cent of all employees (down from 5.2 per cent in 2013).

At an occupational level, skills gaps continued to be more prevalent in what are traditionally described as unskilled or semi-skilled occupations, with a notable increase from 2013 in the proportion of Machine Operatives not being fully proficient in their job role. This was also the occupation in which there was the greatest increase in the density of skill-shortage vacancies.

The most common skills deemed to be lacking among existing staff were people and personal skills relating to workload management and teamwork. Specialist, job-specific skills were also widely considered to be lacking, along with complex analytical skills, especially among those in high-skill occupations such as Managers and Professionals.

While the proportion of employers and staff affected by skills gaps decreased compared to 2013, the impact of skills gaps increased slightly, and appeared to impact on smaller businesses in particular.

Retaining staff

Eight per cent of establishments reported that there were specific jobs in which they had difficulties retaining staff, more commonly in larger establishments and those in the Hotel and Restaurants, Public Administration, Education and Health and Social Work sectors. When establishments experience retention difficulties, these tend to be for specific job roles rather than for all occupations. Establishments experiencing retention difficulties were most likely to report them among Skilled Trades and Elementary occupations (21 per cent and 19 per cent respectively). In contrast, very few establishments reported retention difficulties to be mainly among Managers (two per cent).

Employers' perceptions of under-use of skills and qualifications in the workplace

Some employers may experience a skills imbalance where they perceive that staff are being "under-utilised", that is, the skills and qualifications that these staff hold are above those required for their current role. Three in ten employers reported that they had at least one employee who fits this description within their establishment (30 per cent), with two million workers reported to be under-utilised in this way.

There are a number of different reasons given by employers for the under-use of skills. A quarter (26 per cent) of employers that reported under-use of skills said the reason was staff not being interested in taking on a higher level role; 15 per cent reported that the working hours suited them better. These would seem to indicate a personal choice being made by the individual because these job roles better suit their needs and circumstances. However, other reasons given by employers related to what could be considered to be a shortfall in the volume of jobs available that would use their skills, i.e. a lack of demand for their skills in the labour market. For example, 11 per cent of employers reporting under-utilisation said the reason was a lack of jobs in the desired higher level role and 10 per cent reported that they were gaining experience for a higher level role.

Under-utilisation represents not only a waste of individuals' talent but also potentially a missed opportunity for employers to increase performance and productivity, improve job satisfaction and employee well-being, and stimulate investment, enterprise and innovation.

Training and staff development

There was little change in the *headline* training measures between 2015 and the 2013 survey.

It remained the case that two-thirds of employers (66 per cent) had funded or arranged training or development for their staff over the previous 12 months, with around half providing any off-the-job training (49 per cent) or on-the-job training (53 per cent). The proportion of staff being trained in 2015 was also in line with 2013 (63 per cent compared to 62 per cent) as was the average number of days training per trainee over the period (6.8 days, compared to 6.7 days in 2013). Similarly, the proportion of employers that had provided any training intended to lead to nationally recognised qualifications remained unchanged at 31 per cent.

There was, however, an increase in the volume of training, measured in terms of the total number of training days provided in the previous 12 months. This rose to 118m days in 2015, compared to 113m in 2013 and 115m in 2011.

This increase in the volume of training largely reflected a combination of increased levels of employment and increased recruitment activity.

While the proportion of the workforce receiving training and the average number of training days they each received remained unchanged between 2013 and 2015, the size of the workforce increased, meaning that there was a four per cent increase in the number of employees trained (from 16.8m to 17.4m).

The evidence also suggests that the increase in training days may be related to increased recruitment activity, and a consequent increase in induction training. The proportion of training employers that provided any induction training rose considerably (from 58 per cent of employers that trained in 2013 to 68 per cent in 2015), as did the proportion of training employers for whom induction or health and safety training accounted for at least half their training (from 27 per cent to 32 per cent).

Total employer expenditure on training increased by six per cent between 2013 and 2015, from £43.0bn to £45.4bn, more than reversing the decrease recorded between 2013 and 2011 (when the figure stood at £43.8bn).

While total expenditure on training was greater, investment per person trained and per employee remained similar in 2015 to 2013 and 2011.

Use of online training or e-learning and of other self-learning was common among training employers (45 per cent and 38 per cent respectively), and generally increasing, particularly for online training and e-learning (39 per cent of those using this method at all in the last two years reporting an increase over the last 12 months, compared with 18 per cent using it less).

Variations in training levels appear to be driven largely by employer size. The survey showed that the smallest establishments provided twice as many training days per person trained and spend, on average, three and a half times more per person trained than the largest establishments. Reflecting these patterns, businesses in Construction and Agriculture spend more per person trained than sectors dominated by larger establishments, such as Public Administration and Health and Social Work. This suggests that smaller businesses are less likely to benefit from economies of scale in the planning and implementation of training than their larger counterparts. This is particularly true of small, single site businesses: small establishments that are part of a larger organisation appear able to draw on the larger organisation for support in training functions.

Close to a half of employers that trained (46 per cent) wanted to provide more training than they had been able to do, with the main barriers being a lack of time and a lack of funds for further training. These reasons suggest that for some businesses, there is a ‘ceiling’ to the value they place on training, beyond which the training does not provide an adequate return to their investment, or at least is not perceived to.

Given the constraints businesses have faced in recent years, a maintenance of broadly consistent training levels is positive; but it does also pose a challenge to UK businesses. Around 90 per cent of the current labour force have the potential to be active in the labour market a decade from now (UKCES 2014b). Therefore, the economy cannot rely on initial education alone to ensure people have the continuously changing skills that are needed: the workplace is a vital location to develop these skills. Given the importance of skilled people as a global currency, the survey poses questions about whether these levels and the types of training businesses are investing significant resources in are adequate to enable the UK economy to take advantage of opportunities, capitalise on innovation and secure growth in performance and productivity.

High performance working practices and product market strategies

Skills is a derived demand. Employers do not simply provide training or seek to recruit skilled people as an end in itself, the level and nature of the skills they require is derived from the business strategy they pursue and from the way they organise their work. As these strategies drive employers' demand for skills, it is likely that they will impact on employers' experiences of skill challenges and the practices they implement to address those challenges.

Businesses that adopt high performance working practices (HPW) and those that pursue "very high product market strategies" (PMS, i.e. those who lead the way within their industry, offer premium products and services with a high degree of customisation and whose competitive success is not at all price dependent) tend to be more active in the recruitment market and consequently to have a more frequent experience of skill shortages: however, they also find it easier to fill their vacancies in the sense that a smaller proportion of their vacancies are hard-to-fill.

There was a clear relationship between an establishment's working practices and product market strategies and their provision of training. HPW employers and those that pursue higher product market strategies were more likely to have trained their staff and to have trained a higher proportion of their staff. These employers were also more likely to have provided training that led to nationally recognised qualifications and to qualifications that are of a higher level.

Conclusions

The Employer Skills Survey is a vital source of data on skills and the labour market. It offers a unique insight into the micro decisions that employers make about factors such as recruitment, training investment and use of skills in the workplace, which underpin the macro-level trends that drive UK economic growth and productivity levels.

ESS 2015 highlights how changes in the economy are impacting on firms differently. Overall, vacancies and skill-shortage vacancies have increased significantly over the last two years, with some sectors in particular facing heightened difficulties in recruiting staff, such as in Construction and Finance. However, in many cases there has been persistence over successive waves of the survey in the areas in which difficulties are most commonly reported. For example, Manufacturing remains one of the sectors most likely to report that their vacancies are hard to fill for skill related reasons, despite declining employment levels and this has been persistent over the Employer Skills Survey series throughout the 21st century; Skilled Trades is the occupation in which employers are most likely to report skill-shortage vacancies.

These variations, in addition to geographical variation, raise questions about how local and national governments ensure the maximum value of any policy response, which needs to be mindful of the variations in experiences reported here and the contextual factors which shape these experiences.

But there are questions for businesses too as the survey raises questions about the levels of demand for, and use of, skills by employers and whether these are at the right levels for the business. For example, the survey shows us that a minority of businesses operate high performance working practices but those that do have a higher demand for skills; that Managers are the occupational group least likely to receive training, but will be instrumental in decisions about business and people strategies; that 2 million staff have skills not currently being used in the workplace and that the impacts of skill shortages reported by employers have the potential to be very damaging to business, yet the persistence of many skill deficiencies suggests that training decisions, in some businesses at least, may be sub-optimal. At a micro-level, these factors may be damaging for the business; at a macro-level, they could be damaging for the UK economy and hamper the sustainability of UK economic growth.

1 Introduction

1.1 The UK-wide employer skills survey

The UK Commission's Employer Skills Survey is a biennial study that forms the cornerstone of its labour market intelligence. It contributes to, and influences, policy and practice in addressing the skills challenge and prompting growth through people.

This report presents the headline findings from the 2015 survey. It is the third time the study has been undertaken on a UK-wide basis, having previously been conducted in 2011 and 2013[1].

This timeframe coincides with the UK economy leaving recession and experiencing a sustained period of moderate economic growth. While employment levels have increased over this time, there is mounting evidence of stalling productivity growth (ONS, 2014) that could hinder the current economic recovery as employers are unable to optimise their performance. Analysis conducted by the UK Commission has also highlighted the need to address deep-rooted structural skills and employment challenges – particularly in respect of youth employment - in order to ensure that conditions are created for a prolonged, balanced structural recovery. In common with the broader devolution agenda in the UK there has been an increased focus on driving the skills agenda at a local level, with an emphasis on encouraging employers, education providers and local government to address skill shortages that are holding back employment opportunities and business growth.

Based on over 91,000 interviews with establishments, ESS 2015 enables assessment of how skills deficiencies are impacting business and organisational performance at both UK-wide and a more local level. It measures the prevalence, character and impact of skills challenges, and details the nature and extent of employer investment in skills and training. It therefore provides a substantial body of evidence that can be used by a wide range of organisations and audiences.

The Employer Skills Survey is designed to complement and supplement the UK Commission's Employer Perspectives Survey series (EPS) which explores the attitudes and behaviour of employers across the UK as they make decisions about how to engage with training providers, schools, colleges and individuals in the wider skills system, to obtain the skills they need.

[1] Prior to this the four nations had each run their own skills surveys; each were similar in style but varied in the employer population they covered and the timescales in which they were conducted preventing comparisons across nations. That said, as the population covered by the UK-wide surveys matches that used in England previously it is possible to trace valid time series data for employers in England going back to 1999.

This evidence report represents an initial overview of the survey's findings, in which we:

- Present findings across the UK, including time series analysis comparing the results to those seen in 2011 and 2013;
- Compare experiences and behaviours between employers across the countries of the UK;
- Analyse differences in the overall picture by such variables as workplace size and sector, and where feasible by occupation;
- Examine the interrelationship between the key ESS measures - skills gaps, skill shortages and workforce development activity.

As well as written commentary, the appendices to this report include abridged data tabulations detailing key survey measures.

Full UK data tabulations have also been published alongside this report and are available here: https://www.gov.uk/government/publications/ukces-employer-skills-survey-2015-supplementary-documents.

1.2 Methodological overview

Like its predecessors, ESS 2015 was carried out in two parts: a core survey of UK establishments and a follow-up survey looking at the investment employers had made in providing training to employees in the 12 months previous (the "Investment in Training Survey"). Both surveys were conducted by telephone.

This section briefly summarises the key features of the methodology adopted across both surveys. Further detail can be found in the separate Technical Report which accompanies this report: https://www.gov.uk/government/publications/ukces-employer-skills-survey-2015-uk-results.

1.2.1 Survey sampling

The population covered by the survey comprised business establishments (as opposed to enterprises) in the UK with at least two staff (including both employees and working proprietors). Sole traders and establishments with just one employee (and no working proprietors) were excluded.

The survey encompasses establishments across the whole of the UK, in all sectors of the economy (across the commercial, public and charitable spheres). The profile of this population was established through the Office for National Statistics (ONS) based on data from the Inter-Departmental Business Register (IDBR) March 2014 statistics (the most up to date figures available at the time of the survey).

The sample of establishments was primarily sourced from Experian's National Business Database, supplemented by records supplied directly through the IDBR in order to improve coverage of establishments in specific sectors and parts of sectors that are underrepresented in Experian's database.

Quotas for the main survey were set by size within sector for Scotland, Wales, Northern Ireland and nine English regions. In addition to geography, sector and size of establishments, the Investment in Training follow-up survey also ensured robust coverage by the nature of the training provided (whether establishments provide on-the-job training only, off-the-job training only, or both). All of the establishments interviewed for the Investment in Training Survey had been interviewed as part of the core survey and had given their permission to be contacted for this follow-up research.

1.2.2 Survey questionnaire

The core survey questionnaire was based largely on that used in the 2013 survey. However, additional areas were added examining how effectively skills and qualifications are used in the workforce and the provision of online training and self-learning. Questions relating to the recruitment of education leavers were removed in 2015. These questions have become part of the suite of questions posed in the UK Commission's Employer Perspectives Survey, the most recent findings of which were published in November 2014.

One key change for the 2015 questionnaire related to the methods used to capture the skills that are lacking in applicants and the skills lacking among internal staff with skills gaps. A revised framework was adopted for establishing what skills employers find lacking in the external labour market and within their existing workforce. This nuanced framework captures a more comprehensive set of skills that allows for the formulation of more specific, actionable responses to address the skill issues identified. Around half of establishments were assigned the new skills framework, with the other half assigned the "old" framework. This report presents data against the new skills framework in the main body: the time series analysis based on the "old" framework is presented in Tables A.2.12 and A.3.8 in Annex A for reference.

A further development included the introduction of online prompt cards to assist employers through the section of the questionnaire that focussed on categorising their employees into nine different occupational classifications. This was made available to all establishments with 10 or more employees in a bid to reduce the burden on respondents and improve the accuracy of categorisation.

As in 2013, a modularised questionnaire design was developed where certain sections (such as questions pertaining to retention difficulties, and those capturing high performance working practices) were only asked of half of the respondents. The report makes clear where questions were split in this way; further details are provided in the Technical Report.

The average length of interview for the main survey was 23 minutes.

The questionnaire administered for the previous UK Investment in Training Survey in 2013 was used again in 2015, with an additional question on the amount spent on online training courses.

Copies of the questionnaires used for both surveys can be found in the Technical Report. This also provides details of the cognitive testing and piloting undertaken to test the questionnaires, as well as copies of the online prompt card.

1.2.3 Survey fieldwork

Fieldwork for the core survey was undertaken between March and July 2015, and involved 91,210 interviews.

Fieldwork for the follow-up Investment in Training Survey was undertaken between May and August 2015, and involved more than 13,000 interviews with establishments that had taken part in the first survey.

An overall response rate of 42 per cent was achieved for the core survey; this compares with 44 per cent in 2013 and 39 per cent in 2011.

For the Investment in Training follow-up, respondents were already engaged with the survey so predictably a much higher response rate was achieved compared to the main survey: 66 per cent.

Table 1.1 Survey response rates

	UK	England	Northern Ireland	Scotland	Wales
Core survey					
Interviews	91,210	75,129	4,019	6,035	6,027
Response rate	42%	42%	50%	42%	44%
Investment in Training follow up					
Interviews	13,197	10,056	740	1,111	1,290
Response rate	66%	66%	71%	65%	66%

1.2.4 Data weighting

Findings from the core survey have been weighted and grossed up to accurately represent the total population of UK establishments in which at least two people work. This has been done on a size, sector and geographic basis. Separate weights have been generated which allow findings to be presented (a) based on the number of workplaces reporting a particular experience, and (b) based on the number of employees and/or job roles affected by different challenges. The weighting approach has retained consistency with previous iterations and therefore allows for comparability with 2013 figures. A new weighting mechanism was also created for reporting the new skills framework, as described in 1.2.2.

Findings from the Investment in Training survey have been weighted and grossed up to reflect the population of training establishments. These population figures were generated from the weighted findings of the core survey. A new weighting strategy was implemented in 2015 solely for the Investment in Training data to further increase the accuracy of the training spend estimates. This new weighting strategy has also been retrospectively applied to both the 2011 and 2013 data files meaning some of the figures reported in Section 5.9 for 2011 and 2013 may differ slightly from the previous reports.

Further detail on data weighting can be found in the separate Technical Report.

1.3 The nature of UK establishments: describing the survey population

In order to give some context to the findings that are presented throughout this report, and to facilitate understanding of the differences in employers' experiences and practices, this section describes some of the key characteristics of the UK establishment population.

It is important to note that the statistics presented in this section of the report are variously based on official counts of establishments provided by the Office of National Statistics (ONS) and on weighted survey findings; the footnotes on each table or chart detail the source.

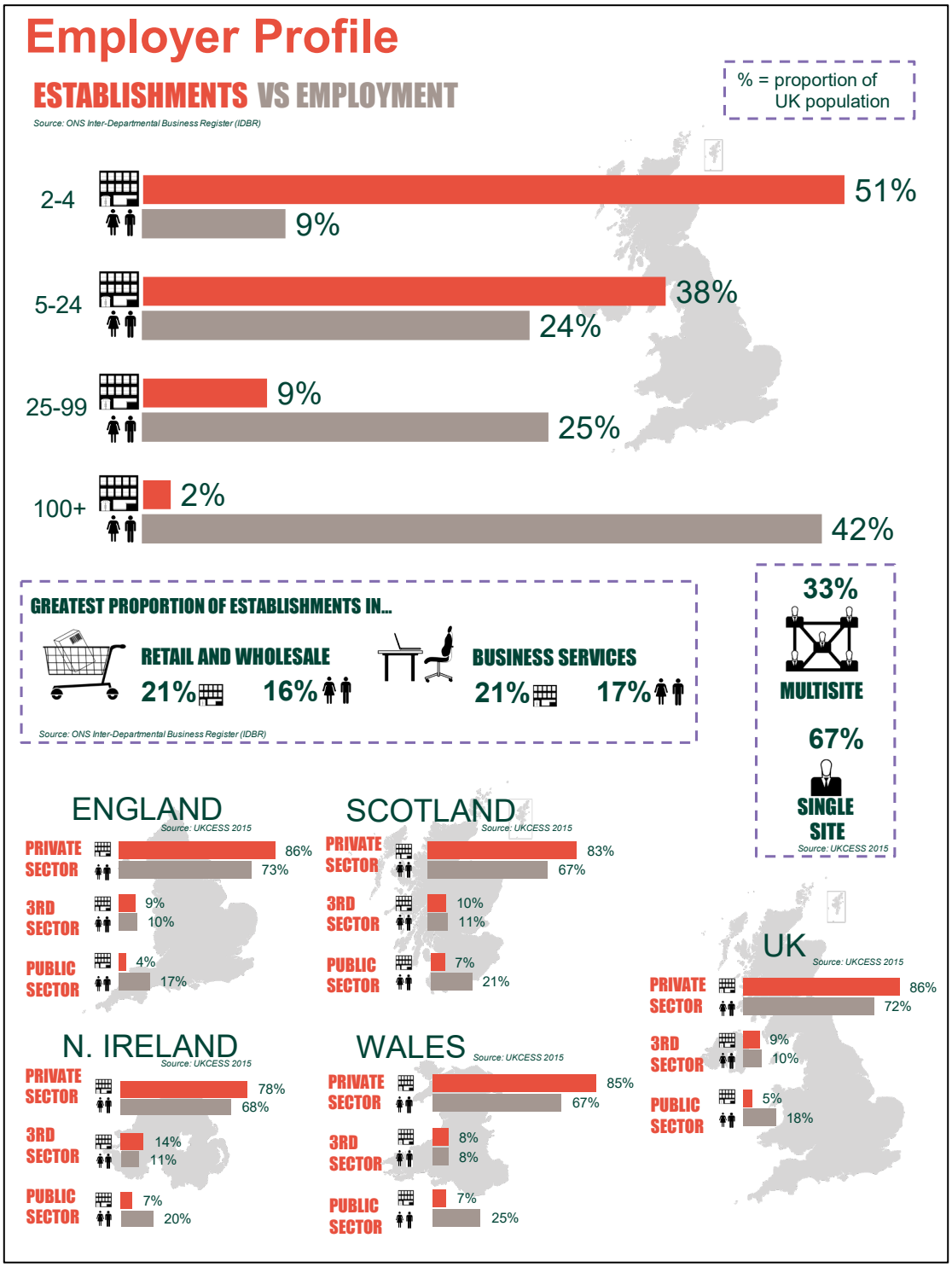
ONS figures show there were around 1.8 million “in-scope” establishments in the UK in March 2014, with around 28 million people working in them[2].

1.3.1 Profile of UK business population

Figure 1.1 summarises key information on the profile of establishments and employment across the UK, based on ONS data. This reveals that while half of establishments (51 per cent) are small and employ fewer than five staff, these very small employers account for just nine per cent of all employment. In contrast, sites with 100 or more staff make up just two per cent of the employer population, but account for two-fifths (42 per cent) of total employment. Public sector establishments are much larger than average: they account for five per cent of all establishments but 18 per cent of all employment (see Table A.1.2 in Annex A).

[2] All establishments with two or more people working at them were in-scope for the survey. See Appendix I for further details.

Figure 1.1 Headline information on the profile of UK establishments and employment



1.3.2 Distribution of employers and employment over time

The UK business population at the time of the survey consisted of 1.8m establishments; this represented an increase of 1.3 per cent from the previous survey in 2013. There was a larger increase in the employment population, from 27.0m in employment in 2013 to 27.8m in 2015 (an increase of 3.0 per cent).

By country, the number of England and Scotland establishments increased by 1.5 and 1.4 per cent respectively from 2013. The picture in Wales was relatively static while the number of establishments in Northern Ireland had reduced by 2.0 per cent. Employment figures increased by at least 2.0 per cent across all nations with the exception of Wales, which decreased by 0.7 per cent.

By size of establishment, the number of businesses sized 10-49 and 100-249 increased by 4.6 and 3.0 per cent respectively from 2013. Changes in other size bands were less marked.

As in previous years, the Wholesale and Retail and Business Services sectors comprised the greatest proportion of both establishments and employees. Together they accounted for over two-fifths of all establishments. Table 1.2 shows the distribution of the business and employment populations and how these figures changed since 2013. Particularly noteworthy was the contraction of the Construction, Financial Services and Public Administration sectors.

Table 1.2 UK business and employment population by sector, 2013-2015

	Establishment			Employment		
	2013	2015	% change	2013	2015	% change
UK	**1,743,800**	**1,766,800**	**1.3**	**26,959,000**	**27,755,200**	**3.0**
Agriculture	93,900	97,400	3.7	381,600	402,500	5.5
Manufacturing	102,100	100,300	-1.8	2,364,800	2,371,400	0.3
Electricity, Gas and Water	9,300	10,200	8.7	282,200	294,200	4.3
Construction	162,800	158,800	-2.5	1,251,400	1,192,800	-4.7
Wholesale and Retail	372,400	371,200	-0.3	4,424,000	4,493,600	1.6
Hotels and Restaurants	155,300	159,900	3.0	1,799,600	1,961,400	9.0
Transport and Communications	121,500	128,800	6.0	2,125,800	2,231,000	4.9
Financial Services	40,000	38,300	-4.4	1,033,900	1,005,000	-2.8
Business Services	348,700	363,800	4.3	4,468,100	4,786,300	7.1
Public Administration	21,400	19,800	-7.4	1,432,600	1,356,400	-5.3
Education	57,500	58,100	1.0	2,570,100	2,607,900	1.5
Health and Social Work	130,000	132,500	1.9	3,598,000	3,791,000	5.4
Arts and Other Services	128,700	127,900	-0.7	1,227,100	1,261,800	2.8

Note: Figures are rounded to the nearest 100. They represent population figures as used in the 2013 and 2015 ESS surveys; these were taken from ONS IDBR 2012 and 2014 population figures respectively.

1.4 Structure of this report

This report has been structured into five key sections followed by a conclusions chapter.

- Chapter 2: Recruitment and skill-shortage vacancies

  This chapter looks at employer recruitment activity, measuring the extent, causes and impacts of recruitment difficulties, with a particular focus on skill shortages within the labour market, the nature of these skill shortages and the impact such labour market failure has on establishments. It then explores the difficulties employers face in retaining staff, in which occupations these commonly occur, and the main reasons for their retention difficulties.

- Chapter 3: The internal skills challenge

  This chapter explores the extent and nature of skills gaps within the workforce, and how these affect different occupations, as well as the causes and impact of these skills deficiencies.

- Chapter 4: Employer perspectives of under-use of skills and qualifications

  Chapter 4 covers the under-utilisation of skills where establishments report that employees have both skills and qualifications beyond those required for their current job role. It explores the occupations most affected by under-utilisation, and the reasons for this mismatch between skills and job roles.

- Chapter 5: Employer investment in training and skills

  Chapter 5 explores in detail the extent and nature of employer training and workforce development, including the investment made in training. It examines the number of staff provided with training over the previous 12 months, the type and volume of this training, the extent to which employers would have liked to provide more training and development than they did, and the barriers that prevented increased training activity.

- Chapter 6: Working practices and product market strategies

  Chapter 6 explores the working practices being adopted by employers in regard to how they manage, develop, engage with and incentivise their staff, and seeks to assess the prevalence of High Performance Working (HPW) practices.

  It also explores the Product Market Strategies (PMS) of employers, and whether this relates to their skill needs and training practices.

- Chapter 7 Conclusions

  The final chapter revisits the key stories emerging from the different strands of the survey, bringing them together and considering their implications.

1.5 Reporting conventions

The survey was carried out at an establishment level. The terms “establishment”, “employer”, “workplace” and “business unit” are used for this interchangeably throughout this report to avoid excessive repetition.

Throughout the report unweighted base figures are shown on tables and charts to give an indication of the statistical reliability of the figures. These figures are always based on the number of *establishments* answering a question, as this is the information required to determine statistical reliability. This means, for example, that where percentages are based on “all vacancies” (such as the percentage of all vacancies which are hard to fill) the base figure quoted is the unweighted number of establishments with vacancies.

In a departure from previous surveys, employers in Mining & Quarrying have been combined with those in Manufacturing for reporting purposes, owing to the relatively low number of establishments they represent in the UK population. 2011 and 2013 figures for Manufacturing have thus been adjusted in this report to include Mining & Quarrying to allow time series comparisons. Appendix C has more information on sector coding.

To aid analysis we have sometimes reported on occupations at a broader classification of high-skill, middle-skill, service-intensive and labour-intensive roles, as shown in Table 1.3.

Table 1.3 Broad occupational groups

Specific occupation	Broad occupational group
Managers Professionals Associate Professionals	High-skill
Administrative and Clerical Skilled Trades	Middle-skill
Caring, Leisure and Other Services Sales and Customer Service	Service-intensive
Machine Operatives Elementary occupations	Labour-intensive

In tables, “zero” is denoted as a dash (“-“); and an asterisk is used (“*”) if the figure is larger than zero but less than 0.5 per cent.

Throughout the report, figures with a base size of fewer than 25 establishments are not reported (a double asterisk, “**”, is displayed instead), and figures with a base size of 25 to 49 are italicised and should be treated with caution.

The scale and scope of data collected by the UK Commission's Employer Skills Survey 2015 means that it is a valuable research resource supporting detailed and complex statistical analysis of the inter-relationships between employer characteristics, and their practices and experiences. The findings presented in this report reflect a descriptive exploration of the data, however it should be noted that in all cases where differences by nation, size and sector are commented on they are statistically significant at the 95 per cent level. Further statistical information can be found in Annex E.

2 Recruitment and skill-shortage vacancies

2.1 Chapter Summary

There has been **substantial growth in the number of employers active in the recruitment market**. Almost one in five employers (19 per cent) had at least one current vacancy at the time of ESS 2015 fieldwork, an increase of four percentage points compared to the 2013 survey. Together, employers in 2015 reported in excess of 900,000 vacancies, an increase of almost 300,000 compared to 2013. This strong growth in recruitment activity was evident in all the UK countries.

Skill-shortage vacancies present an increasing challenge. These are vacancies that employers find hard-to-fill due to a lack of skills, qualifications or experience among applicants. Six per cent of all employers had at least one skill-shortage vacancy at the time of the survey – a significant increase from the four per cent of employers that reported having such vacancies in 2013. In volume terms, there were almost 210,000 skill-shortage vacancies in 2015; a considerable increase from the 150,000 reported in 2013.

The increase in the number of skill-shortage vacancies was proportional to the increase in vacancies. Therefore, the density of skill-shortage vacancies (i.e. the proportion of vacancies which employers were struggling to fill because of skill shortages in the available labour market) was largely unchanged (23 per cent in 2015 compared with 22 per cent in 2013).

By occupation, **the highest density of skill-shortage vacancies was recorded in respect of Skilled Trades posts** (for which more than two in five vacancies were skill-shortage vacancies). Employers have faced **increased challenges in recruiting sufficiently skilled Machine Operatives**. A third of vacancies for Machine Operatives were hard-to-fill for skills reasons, up from a quarter in 2013.

The skills lacking among applicants spanned both people and personal skills as well as technical and practical related skills. Skills relating to operational aspects of the role, as well as complex analytical skills, were the main technical and practical skills lacking. The main people and personal skills lacking commonly related to time management skills, management and leadership skills, and sales and customer handling skills.

Skill-shortage vacancies continue to have significant impacts for employers. Reported impacts included those that would have a direct financial impact on the establishment, such as a loss of business to competitors and increased operating costs.

2.2 Introduction

At a macro level, recruitment is an indicator of the health of the labour market and the economy in general. Indeed, following the recession of the late 2000s, employer skills surveys generally reported depressed levels of recruitment activity. The previous Employer Skills Survey in 2013 presented a picture of a UK economy moving towards recovery with an increase in recruitment activity from 2011.

There can be various reasons for individual employers having vacancies. Depending on the context, vacancies can be a positive indicator of growth, or present challenges if they signify a loss of key personnel or high levels of staff turnover.

When employers have vacancies, the labour market is either able to meet employer requirements (the most common scenario) or it is not. Where employers struggle to fill their vacancies, this may be due to a lack of skills, qualifications or experience amongst applicants. Collectively these are known as '*skill-shortage vacancies'*. Vacancies can also prove '*hard-to-fill'* for other, non-skills-related reasons. Such reasons principally include a lack of applicants for the role, issues with applicants' attitude, personality or motivation, or specific issues related to the job role (e.g. poor terms and conditions or unsociable hours) or the recruiting organisation (e.g. remote location or poor transport links).

ESS 2015 provides a detailed understanding of the level and nature of employer demand for new staff and the ability of the labour market to meet such demand. This sets the context for then exploring imbalances and mismatches in the labour market that result from a lack of skills. The key measures used in this chapter are as follows:

Where establishments have skill-shortage vacancies, the survey also provides information on the skills lacking among applicants. New for ESS 2015 was a revised list of skill descriptors used to better understand the skills lacking[3]. Further detail on the changes made to the skill descriptors is provided in the previous chapter of this report.

Following a brief analysis of vacancies, this chapter focusses on skill-shortage vacancies. The chapter examines the incidence, volume and profile of skill-shortage vacancies, before exploring the specific skills that employers found lacking and the impact that skill-shortage vacancies have had on the establishment. It then closes with a brief discussion of the extent of wider recruitment challenges that establishments face, including a review of retention difficulties.

2.3 Vacancies

There was notable growth in the proportion of establishments reporting vacancies between the 2013 and 2015 studies, pointing to strong labour market activity and positive changes in the UK economy. Specifically, 19 per cent of all establishments had at least one *current* vacancy at the time of ESS 2015 fieldwork. This represents a substantial increase from 2013 when 15 per cent of all establishments had at least one vacancy at the time of fieldwork.

This increased incidence of recruitment activity was also evident when considering the proportion of establishments that had successfully recruited at least one new employee over the 12 months prior to the survey. Just over half (51 per cent) of all establishments had successfully recruited someone during this period; an increase from the 46 per cent reported in the 2014 Employer Perspectives Survey (Shury et al., 2014).

In volume terms, there were a total of 927,200 reported vacancies across the UK at the time of the survey (equivalent to 3.3 per cent of total employment). This represents a considerable 42 per cent increase compared to the number of vacancies reported in 2013, which stood at 655,000, equivalent to 2.4 per cent of total employment in 2013[4].

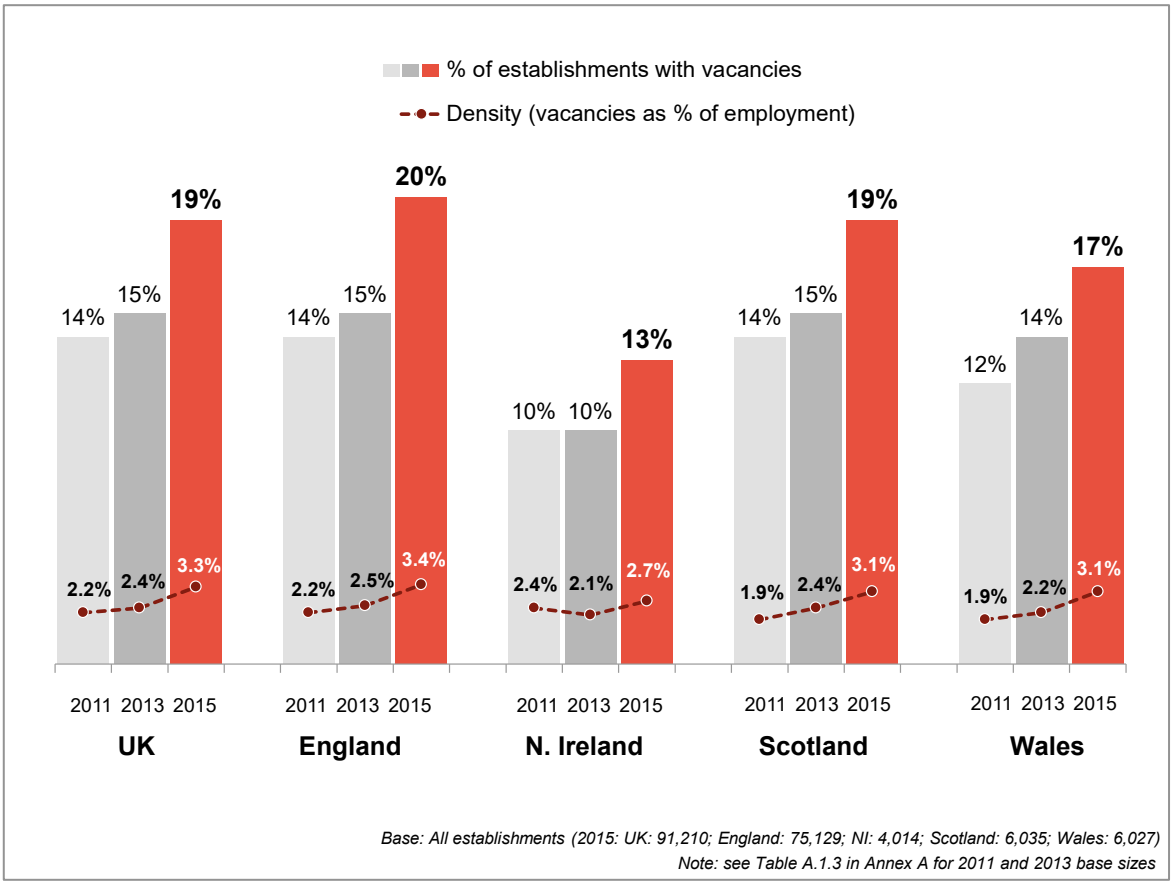
As shown in Figure 2.1, strong growth in recruitment activity was evident in all the UK countries and the proportion of employers with at least one current vacancy represented a return to the broad levels of recruitment activity seen prior to the recession[5].

[3] Half of employers with skill-shortage vacancies were assigned to the 'new' skill descriptors, whereas the other half were assigned to the 'old' skill descriptors used in ESS 2011 and 2013 to facilitate comparisons over time. Time series data on the skills lacking among applicants according to the 'old' skill descriptors are shown in Tables A.2.12 and A.2.12a in Appendix A. Further information on the changes to the skill descriptors used is provided in the ESS 2015 Technical Report (https://www.gov.uk/government/publications/ukces-employer-skills-survey-2015-uk-results).

[4] This large increase in recruitment activity has also been reported by the Office for National Statistics (ONS). The ONS Labour Force Statistics reported that the number of vacancies for May to July 2015 was an increase of 38% from the same period in 2013.

[5] In 2003, 2005 and 2007 the proportion of employers in England with at least one vacancy at the time of the respective fieldwork periods was 17 per cent, 17 per cent and 18 per cent respectively (NESS 2003, 2005 and 2007). Due to differences in the populations used (establishments with 1+ employment, rather than the 2+ employment used in the ESS series) and other methodological differences, accurate time-series comparisons are not possible for the other UK nations

Figure 2.1 Incidence and density of vacancies overall and by country



Base: All establishments (2015: UK: 91,210; England: 75,129; NI: 4,014; Scotland: 6,035; Wales: 6,027)
Note: see Table A.1.3 in Annex A for 2011 and 2013 base sizes

The proportion of establishments that reported having at least one vacancy increased with the size of establishment. Ten per cent of establishments with fewer than five employees had at least one vacancy, compared with 71 per cent of establishments with 250 or more employees. Conversely, the density of vacancies (i.e. as a proportion of employment) decreased with the size of establishment, from 5.8 per cent among those with fewer than five employees to 2.3 per cent among those with 250 or more employees. The incidence and density of vacancies has increased across all size bands since 2013.

By sector, the proportion of establishments that reported vacancies ranged from five per cent in Agriculture to 33 per cent in Education. In density terms, the highest density of vacancies was recorded in a number of the service-based industries. It was highest in the Hotels and Restaurants sector (5.3 per cent), Arts, Entertainment, Recreation and Other Service Activities (5.1 per cent), and Business Services (4.1 per cent). Conversely, the sector with the lowest density of vacancies was Manufacturing (2.0 per cent), closely followed by the Electricity, Gas and Water and Education sectors (both 2.1 per cent).

using the nation-specific skills surveys (The Northern Ireland Skills Monitoring Survey [NISMS], The Scottish Employer Skills Survey [SESS] and Future Skills Wales [FSW]).

The density of vacancies increased by between a quarter to a half in most sectors between 2013 and 2015. The sector with the biggest increase was Construction where the density of vacancies increased by 71 per cent (from a vacancy density of 1.8 per cent in 2013 to 3.0 per cent in 2015[6]).

Tables A.2.1 and A.2.2 in Annex A provide a detailed breakdown of recruitment activity by country, size of establishment and sector.

The survey also identifies the occupational groups where vacancies exist[7]. The occupation with the highest density of vacancies was Associate Professionals at 7.9 per cent. This occupation also had the highest density of vacancies in 2011 and 2013. There was an increase in vacancy density for all occupation groups between 2013 and 2015 (the sole exception being Managers which remained unchanged). The increases in vacancy density were most evident among Skilled Trades and Elementary occupations. The density of vacancies for Skilled Trades increased from 2.7 per cent in 2013 to 4.5 per cent in 2015 and from 2.1 to 3.5 per cent for Elementary occupations.

Table A.2.3 in Annex A provides a detailed breakdown of recruitment activity by occupation.

[6] This increase in vacancy density is most the result of a large increase in the number of vacancies in this sector but also partly due to a decrease in employment in the Construction sector, as detailed earlier in Table 1.2.
[7] See Appendix D for the definitions and types of job roles included under the occupational groupings

2.4 Skill-shortage vacancies

Where establishments had vacancies, the labour market was largely able to meet the recruitment needs of employers: only a third of vacancies across the UK were considered hard-to-fill (33 per cent)[8]. Where employers had hard-to-fill vacancies, these were mainly due to a lack of skills, qualifications or experience among applicants (69 per cent of all vacancies that were hard-to-fill)[9]. This equates to six per cent of establishments having at least one *skill-shortage vacancy* at the time of ESS 2015 fieldwork.

It is important to understand the prevalence and nature of skill-shortage vacancies as an inability to recruit appropriately skilled labour may act as a brake on business growth and hinder productivity. The rest of this section explores these skill-shortage vacancies in more detail.

2.5 The incidence, volume and density of skill-shortage vacancies

The six per cent of establishments with at least one skill-shortage vacancy at the time of ESS 2015 fieldwork represent a significant increase from the four per cent of establishments that reported having skill-shortage vacancies in 2013. This indicates that skill-shortage vacancies present a *growing* challenge to employers.

Moreover, in volume terms, there was a substantial increase in the number of reported skill-shortage vacancies compared to 2013: from just under 150,000 to almost 210,000 – an increase of 43 per cent in the proportion of vacancies that were proving to be hard-to-fill because applicants lacked the required skills, qualification or experience required for the role.

This increase in the number of skill-shortage vacancies was broadly in line with the growth in volume of vacancies (42 per cent) and, thus, the density of skill-shortage vacancies (i.e. the number of skill-shortage vacancies as a proportion of all vacancies) was largely unchanged at 23 per cent compared with 22 per cent in 2013.

England, Scotland and Wales each saw the same increase in the proportion of establishments with skill-shortage vacancies: from four per cent in 2013 to six per cent in 2015. However, the density of skill-shortage vacancies largely remained at a similar level to 2013 in England and Scotland but increased in Wales (see Table 2.1).

[8] Of course very recent vacancies may not be described as hard-to-fill but may become so over time.
[9] During the survey, employers were first asked to give their reasons for not being able to fill vacancies spontaneously (i.e. without being presented with a list of possible reasons). Any employers not reporting skills-related issues were then prompted as to whether any of their hard-to-fill vacancies were proving hard-to-fill due to a lack of skills, experience or qualifications among applicants, and these responses combined to give an overall picture of the incidence and volume of skill-shortage vacancies in the market.

The picture in Northern Ireland was notably different. Here the proportion of establishments with skill-shortage vacancies remained at three per cent and the number of skill-shortage vacancies remained at broadly the same level as in 2013. However, in the context of the increased number of vacancies, this meant that the density of skill-shortage vacancies continued to fall (from 18 per cent in 2013 to 14 per cent in 2015; see Table 2.1). This largely reflects that vacancies in Northern Ireland were 'easier-to-fill' compared with England, Scotland and Wales (the proportion of all vacancies that were hard-to-fill in Northern Ireland was 21 per cent compared to 33 per cent across the rest of the UK).

Table 2.1 Incidence and density of skill-shortage vacancies (SSVs) by country

		% of establishments with an SSV (incidence)			% of vacancies that were SSVs (density)		
	Unwtd base	**2011**	**2013**	**2015**	**2011**	**2013**	**2015**
	2015	%	%	%	%	%	%
UK	*91,210*	3	4	6	16	22	23
Country							
England	*75,129*	3	4	6	15	22	23
Northern Ireland	*4,014*	2	3	3	21	18	14
Scotland	*6,035*	3	4	6	15	25	24
Wales	*6,027*	3	4	6	18	20	24

Base: Columns 1-3 All establishments (see Table A.1.3 in Annex A for 2011 and 2013 base sizes);

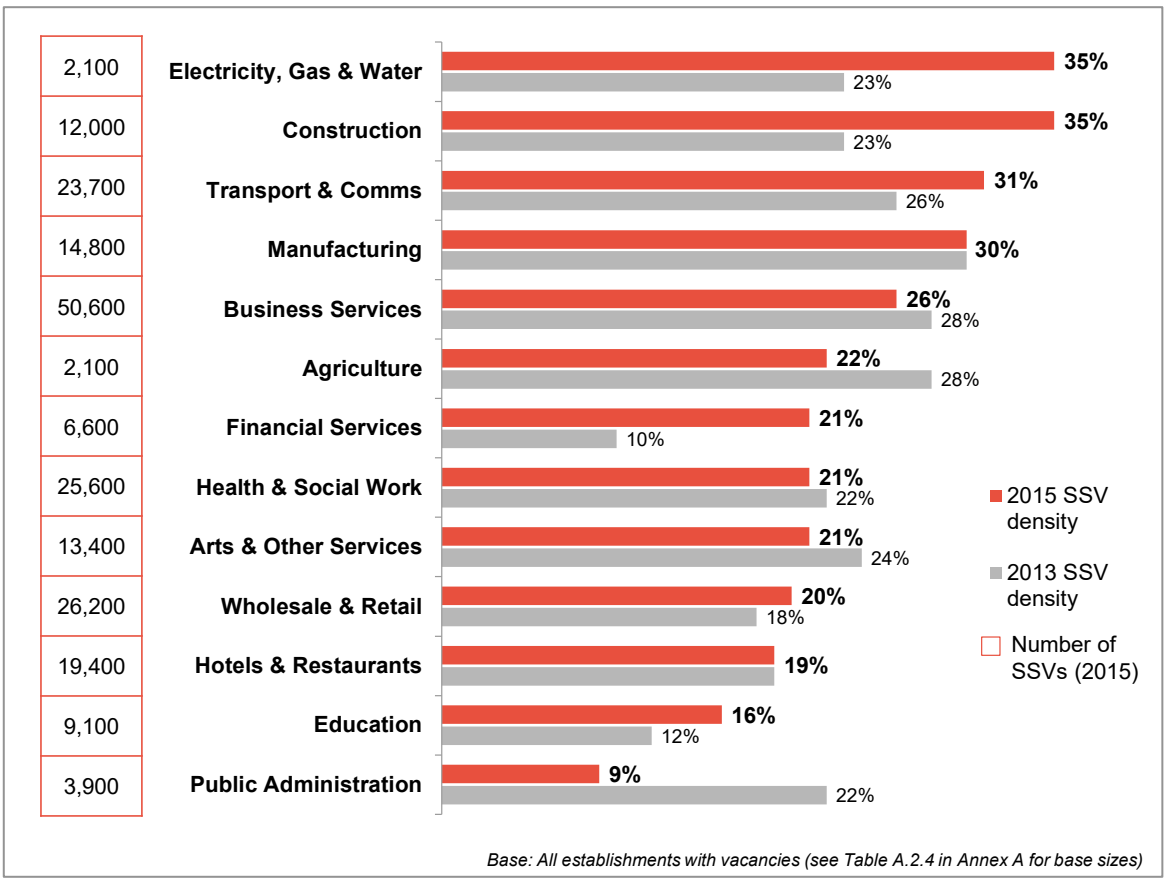
Columns 4-6 All establishments with vacancies

Percentages in Columns 4-6 are shown as a proportion of all vacancies.

The density of skill-shortage vacancies was greater among small establishments than large establishments. Approaching a third of all vacancies (29 per cent) in establishments with fewer than five employees were proving hard-to-fill due to difficulties in finding applicants with appropriate skills, qualifications or experience. This compares with fewer than a fifth (18 per cent) among establishments with 250 or more employees. The differences between the smallest and largest establishments were less marked than in ESS 2013 when the density of skill-shortage vacancies among the smallest establishments was double what it was among the largest establishments (see Table A.2.5 in Annex A).

The experience of skill-shortage vacancies varied greatly by sector. The density of skill-shortage vacancies ranged from nine per cent in Public Administration to 35 per cent in both the Electricity, Gas and Water and Construction sectors (see Figure 2.2).

Figure 2.2 Number and density of skill-shortage vacancies (SSVs), by sector



Although there was relatively little change in the density of skill-shortage vacancies across the UK as whole, the sectoral pattern was considerably different to 2013. The Electricity, Gas and Water and Construction sectors have the highest densities of skill-shortage vacancies (both 35 per cent[10]). This represents a shift from 2013 when skill-shortage vacancy density was highest in Manufacturing, Business Services and Agriculture.

The number of skill-shortage vacancies in the Construction sector has more than doubled since 2013: from 5,000 to 12,000. To some extent this reflects the increased recruitment activity in the sector reported earlier. However, the rate of growth in skill-shortage vacancies outpaced the growth of vacancies in this sector. This indicates that Construction employers have faced significant, and increasing, challenges in recruiting sufficiently skilled labour.

[10] Whilst the results for the Electricity, Gas and Water sector are based on a robust number of establishments with vacancies, it should be noted that the number of establishments with skill-shortage vacancies is relatively small (76). When base sizes are relatively small the volumetric (and density) measures are particularly volatile to being influenced by a few establishments with a large number of vacancies/skill-shortage vacancies. Caution should be taken when interpreting these results.

In the Financial Services sector the number of skill-shortage vacancies has increased from 2,800 in 2013 to 6,600 in 2015 (the density of skill-shortage vacancies more than doubled from 10 per cent to 21 per cent[11]). The Financial Services sector is a substantial contributor to the UK economy (Tyler, 2015) and so an increased challenge for employers in this sector to recruit sufficiently skilled labour is of concern. The Financial Services sector has undergone extensive upheaval following the financial crisis and subsequent recession and the sector may be seen as less attractive to potential recruits; there are indications that the proportion of graduates entering this sector has declined gradually since 2006 (HESA, 2015).

Conversely, there was a marked decrease in the density of skill-shortage vacancies in the Public Administration sector: from 22 per cent in 2013 to nine per cent in 2015.

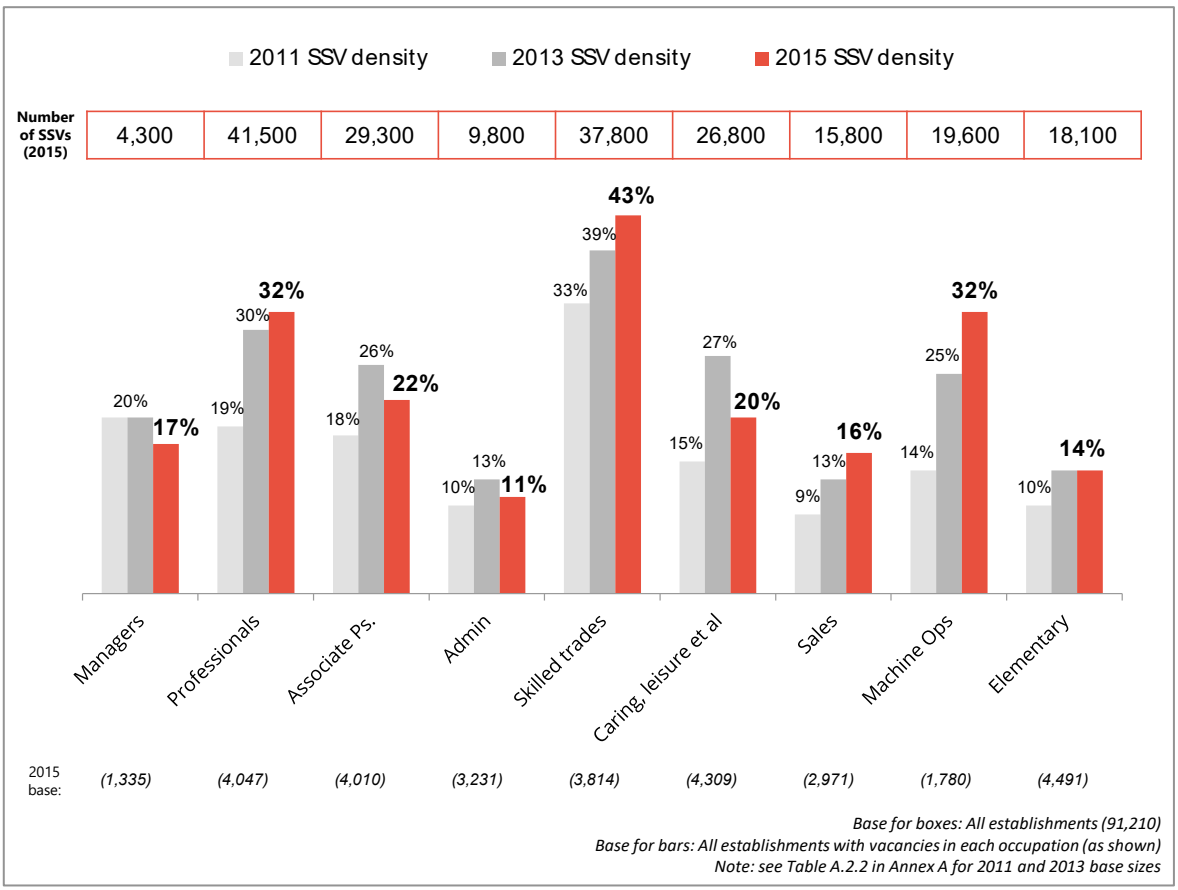
Tables A.2.4 and A.2.5 in Annex A provide a detailed breakdown of skill-shortage vacancies by country, size of establishment and sector.

By occupation, it was among Skilled Trades where density of skill-shortage vacancies was greatest (43 per cent). This occupation has historically had the greatest density of skill-shortage vacancies, both in ESS 2011 and 2013 but also the legacy surveys conducted in each of the countries of the UK. The specific job roles that accounted for the largest proportion of all Skilled Trades skill-shortage vacancies included: Chefs (17 per cent of all Skilled Trades skill-shortage vacancies), Metal Working Production and Maintenance Fitters (13 per cent) and Vehicle Technicians, Mechanics and Electricians (13 per cent).

As illustrated in Figure 2.3, the density of skill-shortage vacancies has increased among Professionals, Skilled Trades, Sales and Customer Service occupations, and Machine Operatives since 2013.

[11] Whilst the results for the Financial Services sector and the Public Administration sector are based on a robust number of establishments with vacancies, it should be noted that the number of establishments with skill-shortage vacancies is relatively small (106 and 44, respectively). When base sizes a relatively small the volumetric (and density) measures are particularly volatile to being influenced by a few establishments with a large number of vacancies/skill-shortage vacancies. Caution should be taken when interpreting these results.

Figure 2.3 Density and number of skill-shortage vacancies (SSVs), by occupation



Base for boxes: All establishments (91,210)
Base for bars: All establishments with vacancies in each occupation (as shown)
Note: see Table A.2.2 in Annex A for 2011 and 2013 base sizes

The increase in skill-shortage vacancy density among Machine Operatives was especially marked. In 2015 there were 60,700 vacancies for Machine Operatives, of which 19,600 were skill-shortage vacancies (a density of 32 per cent), whereas in 2013 there were 30,100 vacancies for Machine Operatives, of which 7,400 were skill-shortage vacancies (a density of 25 per cent). Overall, this heightened challenge in recruiting Machine Operatives was a continuation of the trend observed between 2011 and 2013 when the density of skill-shortage vacancies in this occupation doubled. Employers in each of the UK countries were experiencing increased difficulties in recruiting sufficiently skilled Machine Operatives but this was particularly the case in Wales.

Within the broad Machine Operatives grouping, there was a notable increase in the number of skill-shortage vacancies for the role of Road Transport Drivers (these accounted for 59 per cent of all Machine Operatives skill-shortage vacancies compared with 42 per cent in 2013). More specifically within this Road Transport Drivers grouping, there was a notable increase in the number of skill-shortage vacancies for Large Goods Vehicle (LGV) drivers (these accounted for 18 per cent of all skill-shortage vacancies among Machine Operatives compared with 10 per cent in 2013) [12].

[12] This increasing shortage of LGV drivers has been documented elsewhere and has been reported to be exacerbated by the requirements of the Driver Certificate of Professional Competence (Driver CPC) legislation which meant that all professional LGV drivers were required to hold a Driver Qualification Card (DQC) by September 2014 (Winters, 2013).

Occupations that saw a decrease in skill-shortage vacancy density since 2013 included: Managers, Associate Professionals, Administrative and Clerical staff and, in particular, Caring, Leisure and Other Services staff (see Figure 2.3). With the exception of Managers, skill-shortage vacancy density for these occupations was still higher than in 2011.

Although care should be taken to not over-extrapolate because of the small base sizes in places, exploring *occupations within specific sectors* where the density of skill-shortage vacancies was high (30 per cent or more) provides a more detailed and nuanced picture of employers' demand for skills and the ability of the labour market to meet these needs. Figure 2.4 shows the pattern of skill-shortage vacancy density by occupation and occupation within sector.

A number of these pockets of skill shortages have proved to be persistent over time. The much higher than average density of skill-shortage vacancies for Skilled Trades has been evident across a number of sectors for a number of years. Skill-shortage vacancies have persistently hampered recruitment to Machine Operative roles in Construction and Professional roles in the Manufacturing, Business Services, Transport and Communications, and Health and Social Work sectors.

There were also a number of emerging pockets of skill-shortage vacancies, including:

- Associate Professionals in Construction (such as Product, Clothing and Related Designers and Estimators, Valuers and Assessors) and Financial Services (such as Insurance Underwriters and Business Sales Executives).
- Skilled Trades in Construction (such as Carpenters and Joiners, Plumbers and Heating and Ventilating Engineers) and Arts, Entertainment, Recreation and Other Service activities (such as Gardeners and Landscape Gardeners and Chefs).
- Sales and Customer Service occupations in Transport and Communications (such as Telephonists and Telephone Salespersons).
- Elementary staff in Construction (such as Foremen and Labourers, Cleaners and Domestics, and Elementary Storage Occupations).

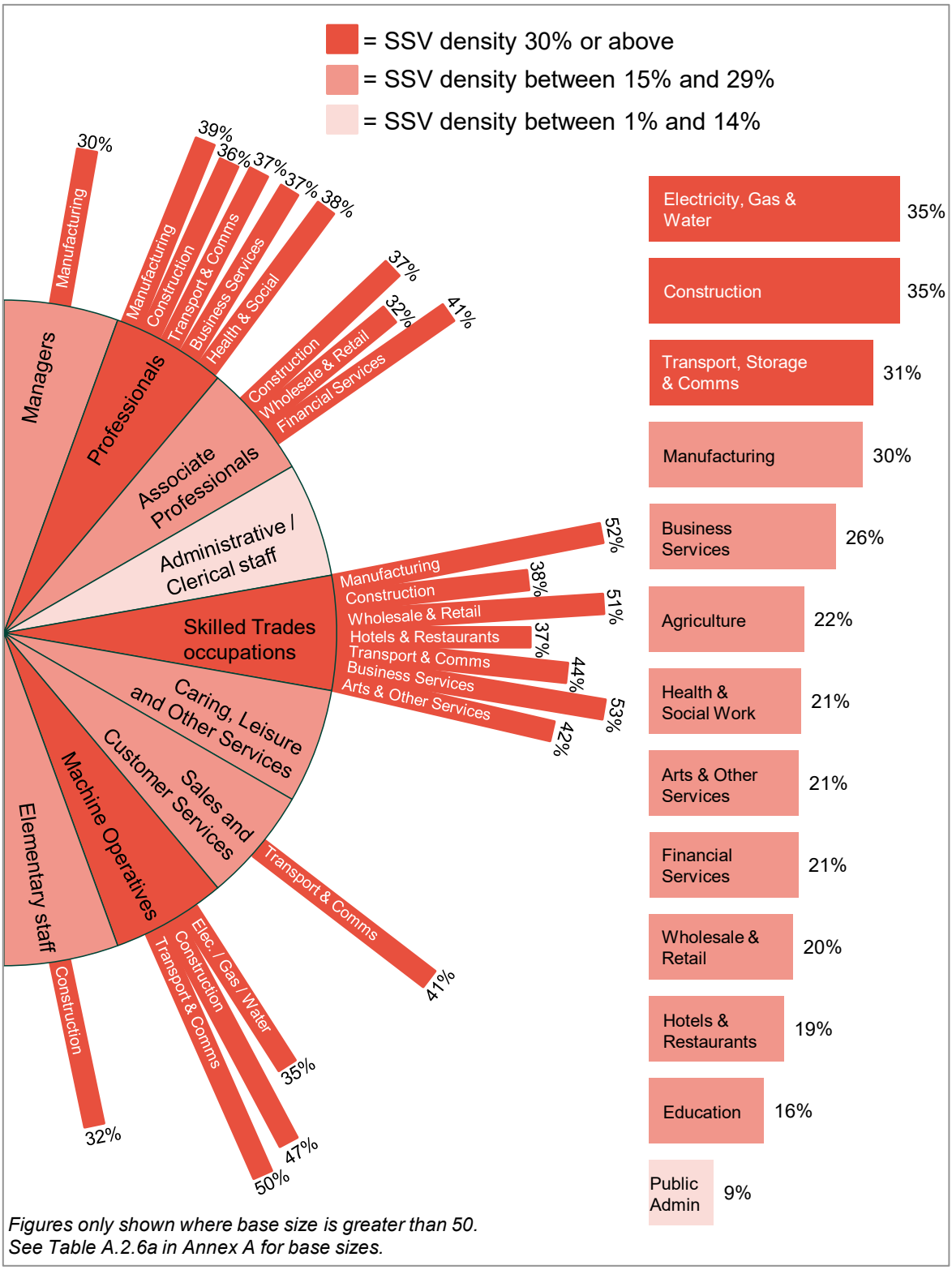
Conversely, there were some specific occupations *within* sectors where skill-shortage vacancy density has fallen. These include:

- Managers in Construction (a decrease in skill-shortage vacancy density from 31 per cent in 2013 to 23 per cent in 2015).
- Professionals in Public Administration (30 per cent to 10 per cent).
- Associate Professionals in Business Services (34 per cent to 23 per cent).

- Caring, Leisure and Other Services in Public Administration (34 per cent to 14 per cent) and in Arts, Entertainment, Recreation and Other Service activities (31 per cent to 24 per cent).
- Machine Operatives in Business Services (46 per cent to 26 per cent).

Tables A.2.6 and A.2.6a in Annex A provide a full and detailed breakdown of skill-shortage vacancy density by occupation *within* sector.

Figure 2.4 Density of skill-shortage vacancies (SSVs) by sector and occupation within sector



Figures only shown where base size is greater than 50.
See Table A.2.6a in Annex A for base sizes.

2.6 Skills lacking in the available labour market

Where establishments struggle to find the skilled recruits that they need from the available labour supply, there is a clear imperative to understand which skills in particular are in poor supply.

The skills perceived to be lacking in the labour market can be broadly categorised into two categories: people and personal skills, and technical and practical skills[13].

As illustrated in Figure 2.5, the stand out skill shortage was a lack of specialist skills or knowledge needed to perform the job role. This was mentioned as being, at least in part, the cause of almost two-thirds of skill-shortage vacancies (64 per cent).

Among the other technical and practical skills lacking, skills that can be categorised as 'complex analytical skills' accounted for a significant proportion of skill-shortage vacancies. A lack of skills for solving complex problems accounted for 39 per cent of all skill-shortage vacancies and 29 per cent of all skill-shortage vacancies were attributed to a lack of complex numerical/statistical skills. These skills are of particular interest given that they are examples of 'higher level' skills that tend to underpin an ability to innovate and adapt.

A considerable proportion of skill-shortage vacancies were attributed to skills related to operational aspects of the role, namely: knowledge of the products and services offered (37 per cent) and knowledge of how the organisation works (31 per cent).

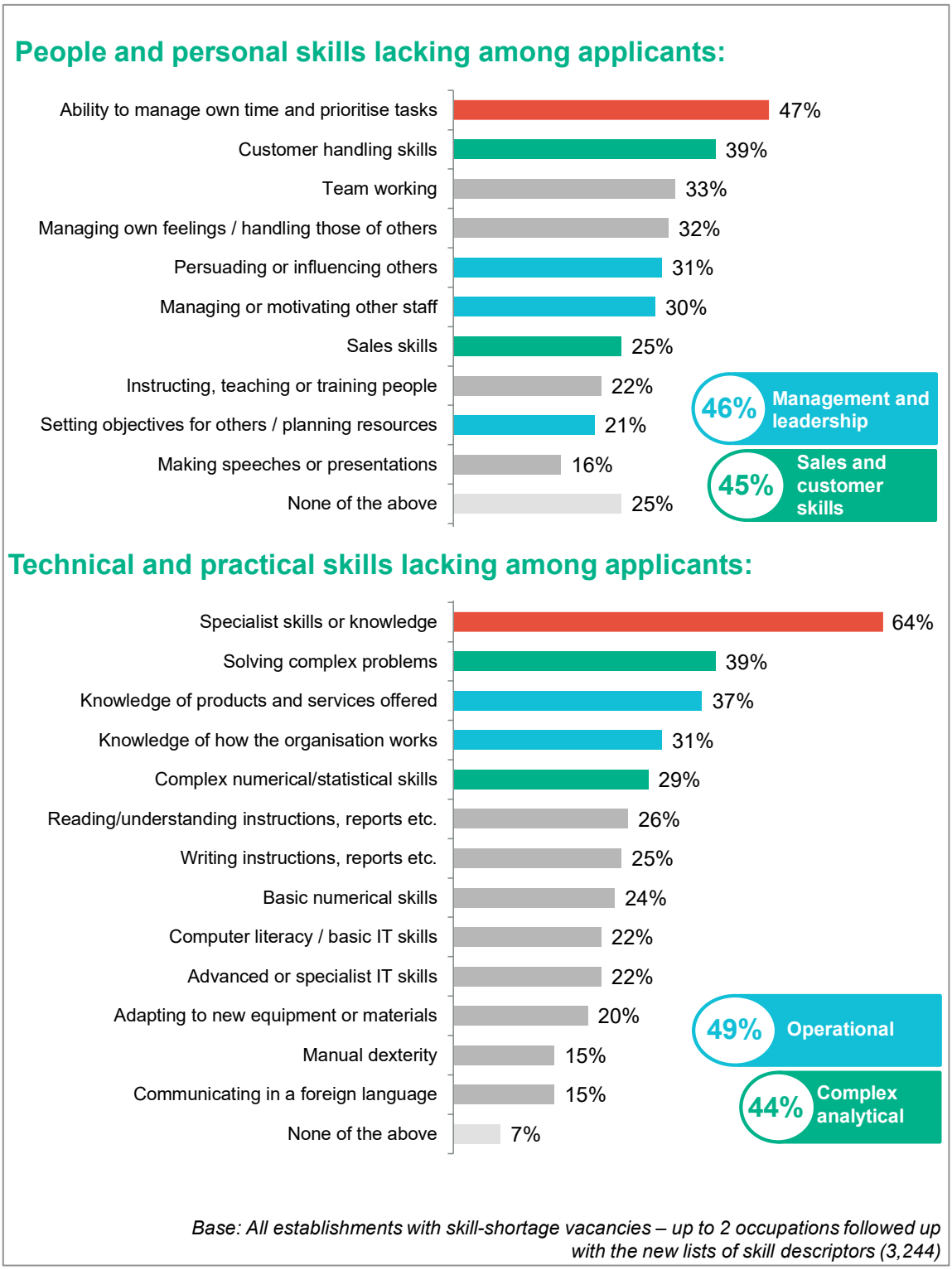
People and personal skills can often be less tangible than technical and practical skills, but they can nevertheless have a big impact on the ability of a potential employee to adapt to the workplace and be an effective member of staff. The most common people and personal skill cited as lacking in the labour market was time management skills. This skill was lacking in almost half of all skill-shortage vacancies (47 per cent).

Among the other people and personal skills lacking, skills related to 'management and leadership' were commonly reported to be lacking, including: persuading and influencing others (31 per cent), managing or motivating other staff (30 per cent) and setting objectives and/or planning resources (21 per cent).

Another grouping of skills that were commonly lacking were 'sales and customer skills', including: customer handling skills (39 per cent) and sales skills (25 per cent).

[13] As noted in the introduction to this chapter, a new list of skill descriptors was developed for ESS 2015. Half of employers with skill-shortage vacancies were assigned to the 'new' skill descriptors, whereas the other half were assigned to the 'old' skill descriptors used in ESS 2011 and ESS 2013 to facilitate comparisons over time. Time series data on the skills lacking among applicants according to the 'old' skill descriptors are shown in Tables A.2.12 and A.2.12a in Appendix A. Further information on the changes to the skill descriptors used is provided in the ESS 2015 Technical Report (https://www.gov.uk/government/publications/ukces-employer-skills-survey-2015-uk-results).

Figure 2.5 Skills lacking among applicants to establishments with at least one skill-shortage vacancy (prompted)[14]



As discussed earlier in this chapter, there were particular occupations in which there was a notable challenge for employers to recruit sufficiently skilled labour (Skilled Trades, Machine Operatives and Professionals). The skills characteristics lacking among applicants for these occupations and sectors are detailed below.

[14] Figure 2.5 illustrates the skills lacking among applicants based on the total number of skill-shortage vacancies (as opposed to establishments with skill-shortage vacancies). It should be noted that employers could cite more than one skill lacking among applicants for each of their skill-shortage vacancies, thus the percentages displayed sum to greater than 100 per cent.

The occupation with the highest skill-shortage vacancy density was Skilled Trades. In line with the general trend, the main skills that candidates for Skilled Trades roles were lacking were:

- Specialist skills or knowledge needed to perform the role (66 per cent).
- Time management skills (48 per cent).
- Solving complex problems (43 per cent).
- Knowledge of products and services (36 per cent).

In comparison to other occupations there was particular difficulty in finding applicants for Skilled Trades roles with the appropriate levels of manual dexterity (33 per cent compared with 15 per cent overall), as well as the ability to adapt to new equipment or materials (29 per cent compared with 20 per cent overall), and the skills for reading and understanding instructions, guidelines, manuals or reports (32 per cent compared with 26 per cent overall).

There has been a marked increase in the number and density of skill-shortage vacancies for Machine Operative roles. The main skills found lacking in the labour market for these roles included:

- Specialist skills or knowledge to perform the role (57 per cent).
- Time management skills (40 per cent).
- Solving complex problems (35 per cent).

Skill-shortage vacancies accounted for just under a third of all vacancies among Professional occupations. The skills lacking among applicants for Professional roles tended to be more focussed on technical and practical skills (34 per cent of all skill-shortage vacancies for Professional occupations were *not* ascribed to any of the people or personal skills, compared with 25 per cent on average across all occupations). Establishments with skill-shortage vacancies for Professional occupations were more likely to report a shortage of advanced or specialist IT skills than for other occupations (34 per cent compared with 22 per cent overall).

Table 2.2 shows the three most common skills lacking from applicants by occupation, as well as the skill areas particularly likely to be in short supply among applicants when compared to the overall average.

Table 2.2 Most common skills lacking among applicants, by occupation

Occupation	SSV Density	Skills most commonly lacking	Three skills in short supply compared with average
Managers	17%	Specialist skills or knowledge Knowledge of products and services Knowledge of how the organisation works	Setting objectives / planning resources Managing or motivating other staff Knowledge of how the organisation works
Professionals	32%	Specialist skills or knowledge Advanced or specialist IT skills Solving complex problems	Advanced or specialist IT skills Specialist skills or knowledge
Associate Professionals	22%	Specialist skills or knowledge Solving complex problems Persuading or influencing others	Advanced or specialist IT skills Persuading or influencing others Making speeches or presentations
Administrative / Clerical staff	11%	Specialist skills or knowledge Time management and task prioritisation Knowledge of products and services	Reading and understanding instructions, reports etc. Advanced or specialist IT skills Knowledge of products and services
Skilled Trades occupations	43%	Specialist skills or knowledge Time management and task prioritisation Solving complex problems	Manual dexterity Adapting to new equipment or materials Reading/understanding instructions, reports etc.
Caring, Leisure and Other Services	20%	Specialist skills or knowledge Time management and task prioritisation Team working	Team working Managing own or others' feelings Writing instructions, guidelines, reports etc.
Sales and Customer Services	16%	Customer handling skills Sales skills Time management and task prioritisation	Sales skills Customer handling skills Persuading or influencing others
Machine Operatives	32%	Specialist skills or knowledge Time management and task prioritisation Solving complex problems	Managing own or others' feelings Sales skills
Elementary staff	14%	Time management and task prioritisation Specialist skills or knowledge Team working	Team working Managing own or others' feelings Time management and task prioritisation

Base: All establishments with skill-shortage vacancies in each occupation – up to two occupations followed up (3,244).

Tables A.2.7 to A.2.11 in Annex A provide a full breakdown of the skills lacking in the available labour market in each of the UK nations and by occupation and sector.

2.7 The impact of skill-shortage vacancies on employers

Although only a small minority of all employers had at least one skill-shortage vacancy at the time of ESS 2015 fieldwork (six per cent), for establishments that had them, the impact could be significant. In total, 94 per cent of establishments that had hard-to-fill vacancies *solely* as a result of skill shortages reported that these were having an impact on the establishment[15].

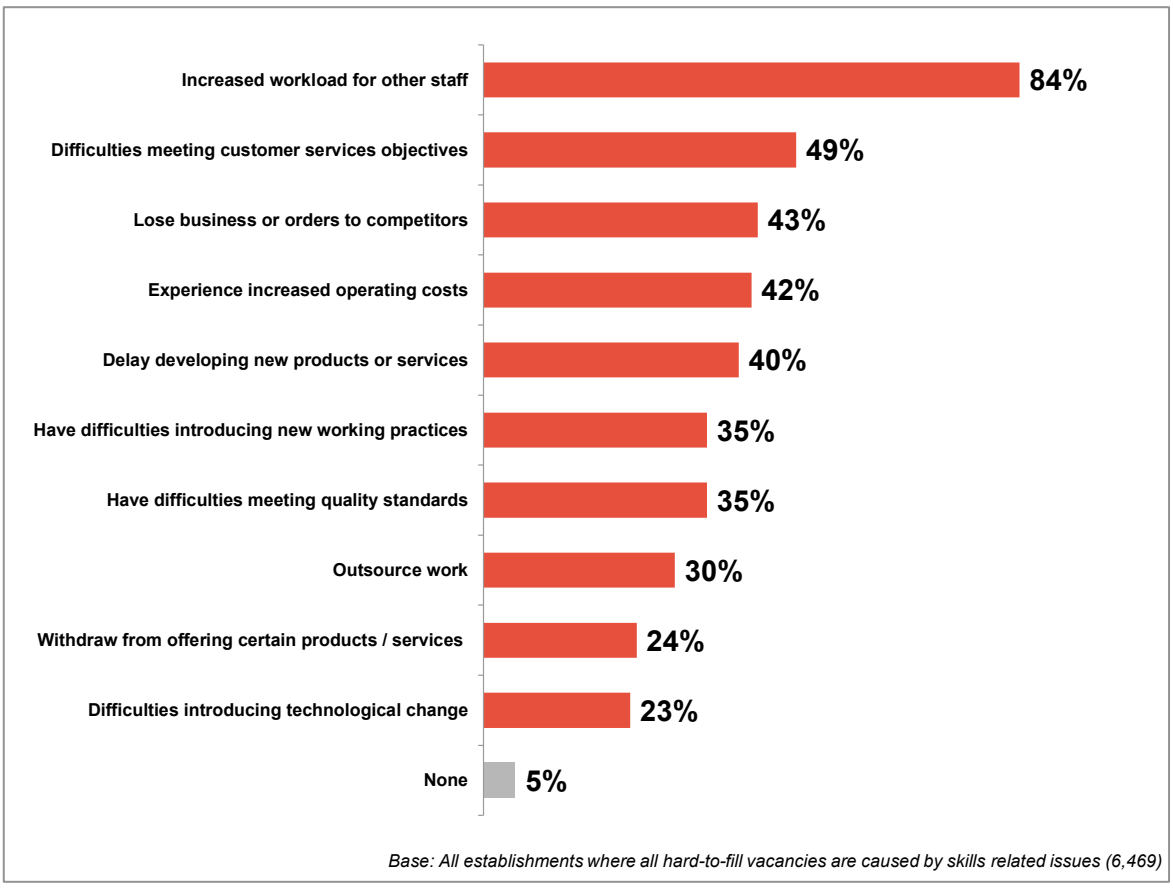
The vast majority of employers that had skill-shortage vacancies (84 per cent) reported that these led to an increased workload for other staff but only a minority (10 per cent) cited this as the only impact of skill-shortage vacancies. More commonly, an increased workload for other staff was paired with other impacts.

Other impacts of skill-shortage vacancies are shown in Figure 2.6. These included impacts relating to a direct financial impact on the establishment, such as a loss of business or orders to competitors and increased operating costs (42 per cent each). Impacts that would likely affect an establishment's ability to innovate were also reported by employers, including: delays to developing new products or services (40 per cent), difficulties introducing new working practices (35 per cent) and difficulties introducing technological change (23 per cent).

There were notable differences in the impacts experienced depending on the size of establishment. A greater proportion of small establishments with fewer than five employees reported that skill-shortage vacancies have impacted them financially by causing a loss of business or orders to competitors compared with large establishments with 100 or more employees (54 per cent and 22 per cent, respectively). Conversely, large establishments with 100+ employees were more likely than small establishments with fewer than five employees to have experienced increased operating costs (58 per cent and 38 per cent, respectively). In relation to impacts on the ability to innovate, small establishments with fewer than five employees were more likely than large establishments with 100+ employees to have delayed the development of new products or services as a result of skill-shortage vacancies (46 per cent and 31 per cent, respectively).

[15] The survey did not measure the impact of skill-shortage vacancies on employers specifically (i.e. it did not ask employers with skill-shortage vacancies what the impacts of these were on the establishment, only the impact of hard-to-fill vacancies *as a whole*). However, it was possible to isolate the effect of skill deficiencies by exploring the impact of hard-to-fill vacancies in establishments where all the hard-to-fill vacancies were caused by skills-related issues. Given the majority of establishments with hard-to-fill vacancies fell into this group (71 per cent) – in part reflecting that the majority had just a single vacancy that was proving hard-to-fill – this was a suitable sample from which it was possible to gain a robust measurement.

Figure 2.6 Impact of skill-shortage vacancies (prompted)



Impacts also varied by sector. Construction employers were more likely to have experienced financial impacts through losing business or orders to competitors (56 per cent compared with the overall average of 43 per cent). Whilst base sizes are small, when looking by size band within Construction, this impact tended to be more keenly felt by smaller Construction employers with fewer than five employees (see Table A.2.13 in Annex A).

Table A.2.14 in Annex A provides a breakdown of the impacts by nation, size of establishment and sector. The impacts of skill-shortage vacancies and the relative prevalence of each of the impacts has changed very little since 2013 (and 2011).

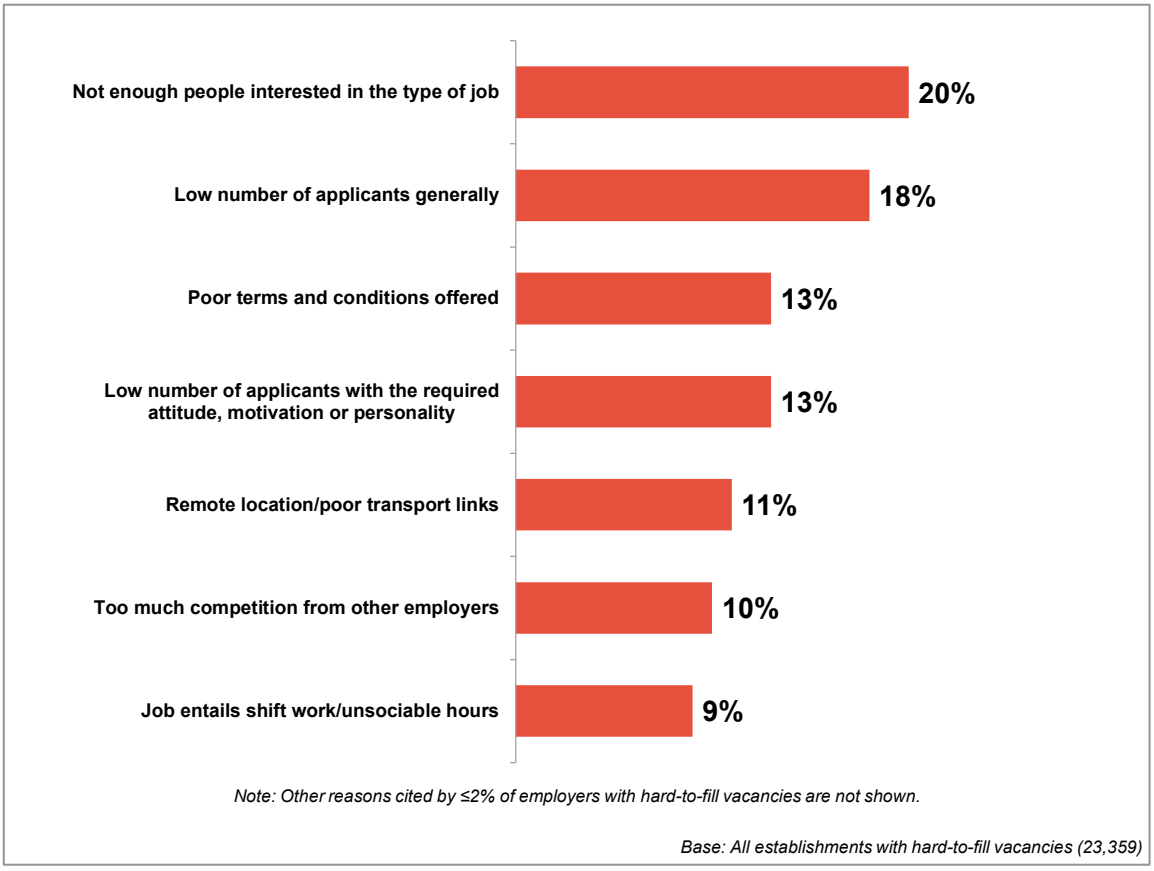
2.8 Wider recruitment challenges

As discussed earlier, the majority of hard-to-fill vacancies experienced by establishments were caused, at least in part, by a shortage of skills among applicants. However, establishments may also face other recruitment challenges and have hard-to-fill vacancies for non-skills-related reasons (see Figure 2.7 for a list of these 'other' reasons).

Overall, 10 per cent of all vacancies – 93,800 vacancies in total – were reported to be hard-to-fill exclusively for reasons *not* related to skills. This represents a significant increase from 2013 when seven per cent of all vacancies (43,100 vacancies in total) were reported to be hard-to-fill for non-skills-related reasons; an increase of 118 per cent in the number of vacancies.

The increase in these types of hard-to-fill vacancies was most notable among employers in England (an increase of 134 per cent compared to 2013), whereas the increases in the other UK countries ranged from 31 per cent in Northern Ireland to 58 per cent in Wales (the increase in Scotland was 43 per cent).

Figure 2.7 Main non-skills-related causes of having hard-to-fill vacancies (unprompted)



Note: Other reasons cited by ≤2% of employers with hard-to-fill vacancies are not shown.

Base: All establishments with hard-to-fill vacancies (23,359)

The density of vacancies that were hard-to-fill for non-skills-related reasons was greater among small establishments than larger establishments. Specifically, 15 per cent of all vacancies in establishments with fewer than five employees were proving hard-to-fill for non-skills-related reasons, compared with only five per cent among establishments with 250 or more employees.

Table A.2.17 in Annex A details the density of vacancies that were hard-to-fill for non-skills-related reasons by country, size of establishment and sector.

The density of non-skills-related hard-to-fill vacancies increased across all occupations compared with 2013, with the exception of Machine Operatives where it remained constant. The density was greatest among Caring, Leisure and Other Services occupations (where it doubled from nine per cent in 2013 to 19 per cent in 2015). Table A.2.18 in Annex A details the density of vacancies that were hard-to-fill for non-skills-related reasons by occupation.

2.9 Retention difficulties

The issue of retaining existing staff is closely linked to employers' experiences in the recruitment market. The impact of hard-to-fill vacancies will be exacerbated if there are then difficulties holding on to the staff that have been recruited. Similarly, if an employer has difficulty in retaining staff, this may cause persistent staff shortages if the employer also has difficulty filling their vacancies. This next section looks at the characteristics of employers that experienced retention difficulties, the occupations which are most affected, and the factors underlying retention difficulties. It also explores the extent to which recruitment difficulties interlink with retention difficulties.

2.9.1 Incidence of retention difficulties

Eight per cent of establishments reported that there were specific jobs in which they had difficulties retaining staff[16].

Proportions differed slightly by country, with establishments in Northern Ireland least likely to have reported retention difficulties (seven per cent) and establishments in Scotland most likely to have reported them (10 per cent). In England and Wales the proportion of establishments with retention difficulties was eight and nine per cent respectively.

Collectively across England, Northern Ireland and Wales the proportion of establishments with retention difficulties has risen from five per cent in 2011 to eight per cent in 2015. It should be noted that retention difficulties were last covered by the Employer Skills Survey in 2011. For that survey, due to differing policy priorities and constraints on the length of the questionnaire, employers in Scotland were not asked to describe their experience of retention difficulties. As such, no Scottish or UK-wide data is available for time series comparisons.

Employers' experience of retention difficulties rose by size of employer, from five per cent among establishments with fewer than five employees, to almost three in ten (30 per cent) among those with 250+ employees.

[16] Employers were asked: *Are there any particular jobs in which you have difficulties retaining staff? (Add if necessary: retention difficulties are when a high number of staff leave, but not as a result of downsizing or redundancy).*

By sector, employers within the Hotels and Restaurants sector were most likely to experience retention difficulties (14 per cent), followed closely by those in Public Administration (13 per cent), Education and Health and Social Work (both 11 per cent). Employers in the Financial Services, Wholesale and Retail and Construction sectors were least likely (each six per cent).

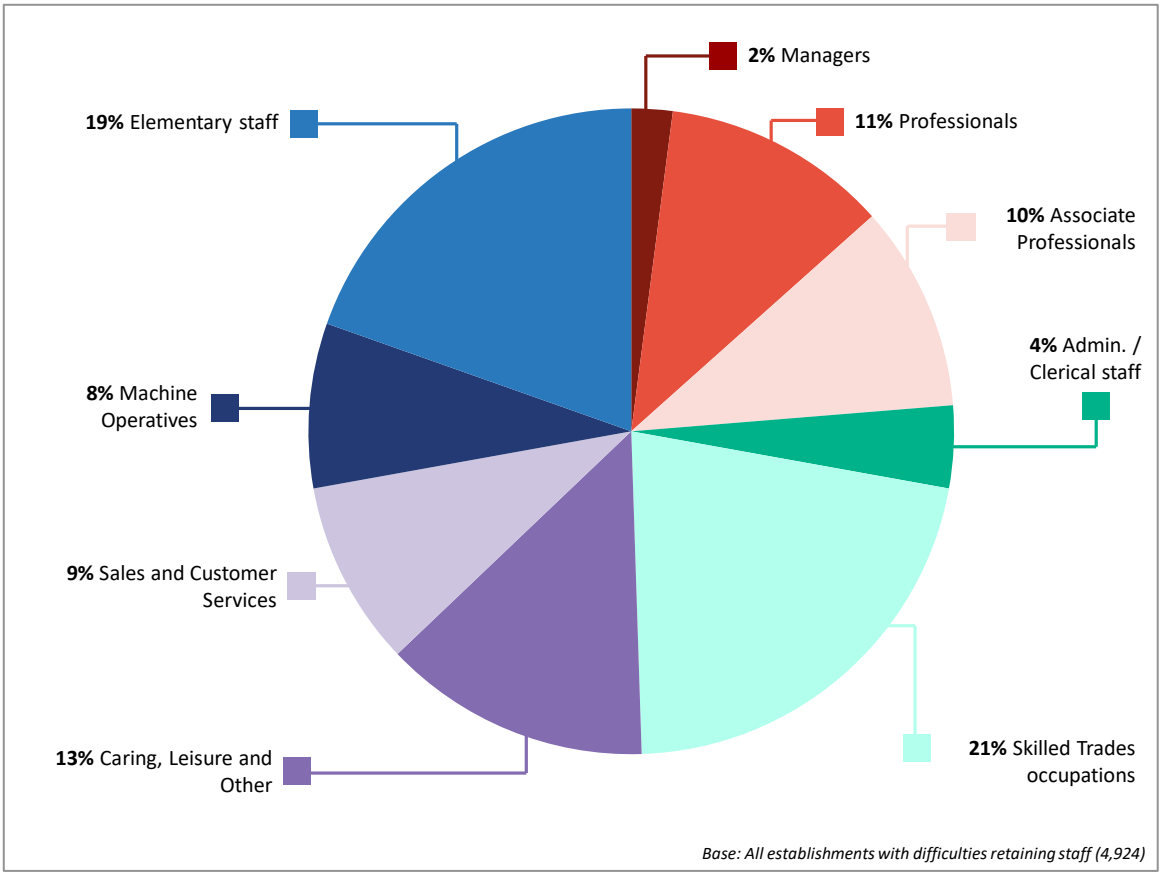
Table A.2.19 in Annex A provides detailed figures of the incidence of establishments with retention difficulties by size and sector.

Establishments with current vacancies were far more likely to have retention difficulties (25 per cent, compared to four per cent of those without vacancies). This reflects the inter-relationship between retention difficulties and labour market activity. Establishments that were struggling to fill their vacancies were particularly likely to experience retention difficulties (43 per cent of those with hard-to-fill vacancies).

2.9.2 Occupational pattern of retention difficulties

When establishments experience retention difficulties, these tend to be for specific job roles rather than for all occupations. Establishments experiencing retention difficulties were most likely to report them among Skilled Trades and Elementary occupations (21 and 19 per cent respectively; see Figure 2.8). In contrast, very few establishments reported retention difficulties to be mainly among Managers (two per cent).

Figure 2.8 Occupations in which most difficulty retaining staff



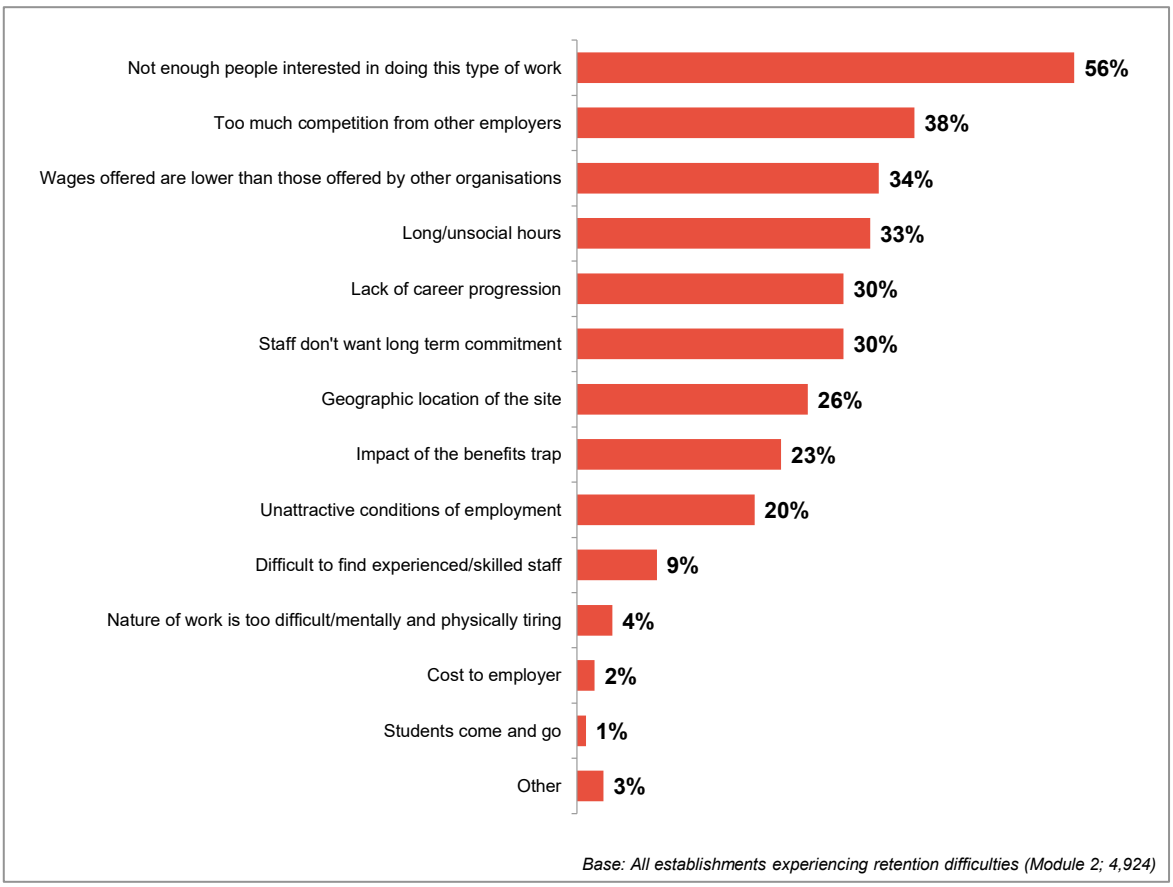
As described earlier in this Chapter, vacancies increased most markedly among Skilled Trades and Elementary occupations causing more movement of staff between organisations. Employers were also most likely to have difficulties filling vacancies for Skilled Trades occupations (53 per cent of all Skilled Trades vacancies were reported to be hard-to-fill). This suggests the impact of these retention difficulties is likely to be more acute as these staff are harder to replace. Conversely, vacancies in Elementary occupations were less likely to be hard-to-fill (26 per cent of Elementary vacancies were classified by employers as hard-to-fill), suggesting the impact of the retention difficulties here may be lessened as staff are easier to replace.

The low proportion of employers that reported retention difficulties for Managers (two per cent) was in line with the relatively low number of vacancies for these roles (just three per cent of all vacancies were for Managers).

2.9.3 Reasons for retention difficulties

The reasons establishments had difficulties retaining staff are shown in Figure 2.9. Some of the most common reasons given related to retention difficulties rising from conditions within the job market, including: a lack of people interested in the type of work (56 per cent), too much competition from other employers (38 per cent) and lower wages being offered relative to other organisations (34 per cent). Reasons for retention difficulties also commonly related to unappealing characteristics of the role, including: long hours (33 per cent), lack of career progressions (30 per cent), geographic location of the site (26 per cent) and unattractive conditions of employment (20 per cent).

Figure 2.9 Reasons for retention difficulties



As we saw in the previous section, the occupational groups most affected by retention difficulties were Skilled Trades and Elementary occupations. The data here allow us to better understand the reasons these roles prove problematic.

- In the case of Skilled Trades occupations, the reasons for retention difficulties most commonly related to job market conditions, and in particular that there were not enough people interested in doing the type of work (63 per cent) and that there was too much competition from other employers (40 per cent).
- Retention difficulties with Elementary staff were also attributed to job market issues, particularly not enough people being interested in this type of work (67 per cent). However, reasons for retention difficulties in Elementary roles also centred on unappealing characteristics of the role: the most common of which was the job involving long or antisocial hours (43 per cent).

2.10 Conclusions

In line with the picture of a growing UK economy, ESS 2015 provides evidence of strong labour market activity. There were, however, signs of increasing challenges for establishments in being able to recruit individuals with the required level of skills, qualifications or experience. Notably there were increased recruitment challenges related to skill shortages for employers in Construction and Financial Services; two sectors that are critical to the UK economy.

The marked increase in skill-shortage vacancies since 2013 may act as a threat to business growth and hinder productivity if employers are unable to recruit sufficiently skilled labour. Indeed, the reported impacts of skill-shortage vacancies for employers were numerous, with many reporting that a shortage of skills has had a direct financial impact on the establishment, or has impacted their ability to innovate through the introduction of new products, working practices or technologies.

The types of skills lacking in the labour market included management and leadership skills, as well as complex analytical skills. These types of skills are important when considering the productivity of the workforce and the ability of establishments to innovate through the introduction of new technologies and working practices.

Having considered the external skills challenges that employers face when recruiting, the next chapter will consider the skills challenges that employers face within their existing workforce.

3 The Internal Skills Challenge

3.1 Chapter Summary

The majority of establishments reported that they had a fully proficient workforce: 86 per cent felt that all their staff were fully proficient at their job. However, around one in seven employers (14 per cent) experienced skills gaps within their establishment. This equates to approximately 1.4 million staff who were not fully proficient (five per cent of the UK workforce).

The proportion of employers with any skills gaps, and the proportion of the workforce affected, decreased gradually at UK level between the 2011 and 2015 surveys. This varied by nation, however. The picture in England was relatively static, while the levels of skills gaps in Scotland and Wales fell between 2013 and 2015, when it aligned with the experience among employers in England. Northern Ireland employers reported the greatest levels of proficiency in their staff: the level of skills gaps here dropped considerably from 2013 such that only one in 11 employers experienced skills gaps within their establishment, representing 3.3 per cent of all employees.

At an occupational level, skills gaps were more likely to be found in what are traditionally described as unskilled or semi-skilled occupations, with a notable increase since 2013 in the proportion of Machine Operatives not being fully proficient in their job role.

Three in five of all skills gaps were deemed to be caused, at least in part, by the fact that staff were new to the role, while a similar proportion were attributed to employees' training being only partially complete. These factors are both predominantly transient: that is to say one would expect skills gaps resulting from these causes to be eliminated once staff have settled into their new roles and/or existing training has been completed.

People and personal skills, such as time management and the ability to prioritise tasks, as well as team working, were commonly lacking across a range of occupations where skills gaps were present. Specialist skills or knowledge needed to perform the role were also widely considered to be lacking, along with complex analytical skills, especially among those in high-skilled occupations such as Managers and Professionals.

While the proportion of establishments experiencing skills gaps decreased since 2013, **the impact of skills gaps where they did occur increased slightly**, and appeared to harm smaller businesses in particular. An increased workload for other staff was the most common impact, affecting around half of all establishments with skills gaps.

3.2 Introduction

Chapter 2 examined the extent to which establishments encountered difficulties recruiting and holding on to staff with the skills they need: a challenge that has increased over time.

This chapter explores the related issue of skills gaps within the existing workforce. This internal challenge arises when employees lack proficiency to fulfil their role. Such skills gaps can hinder an establishment's ability to function efficiently, thereby harming its productivity and profitability.

The chapter covers the incidence, volume, profile and causes of skills gaps, both at an overall UK and sector level, and by occupation. It then considers the specific skills that establishments reported their staff to be lacking, the impact that skills gaps had on their business, and their response to address these issues. It finishes by exploring the relationship between internal and external skills challenges.

New for ESS 2015 was a revised list of skill descriptors used to better understand the skills lacking in the workforce (the same approach has been taken for skill-shortage vacancies). In the 2011 and 2013 surveys a large number of establishments reported that skills gaps were due, at least in part, to deficiencies in 'technical, practical or job-specific skills', without any further information collected on the nature of the skills that were lacking.

To address this lack of detail – alongside a desire for improved coverage of 'higher level' skills that underpin innovative business practices and to harmonise the skill descriptors used with those of other international skills surveys – the skill descriptors used were revised for ESS 2015.[17] These skill descriptors can be broadly categorised into two: 'technical and practical' skills, which define the content of a job role; and 'people and personal' skills, which define the way in which job roles are delivered.

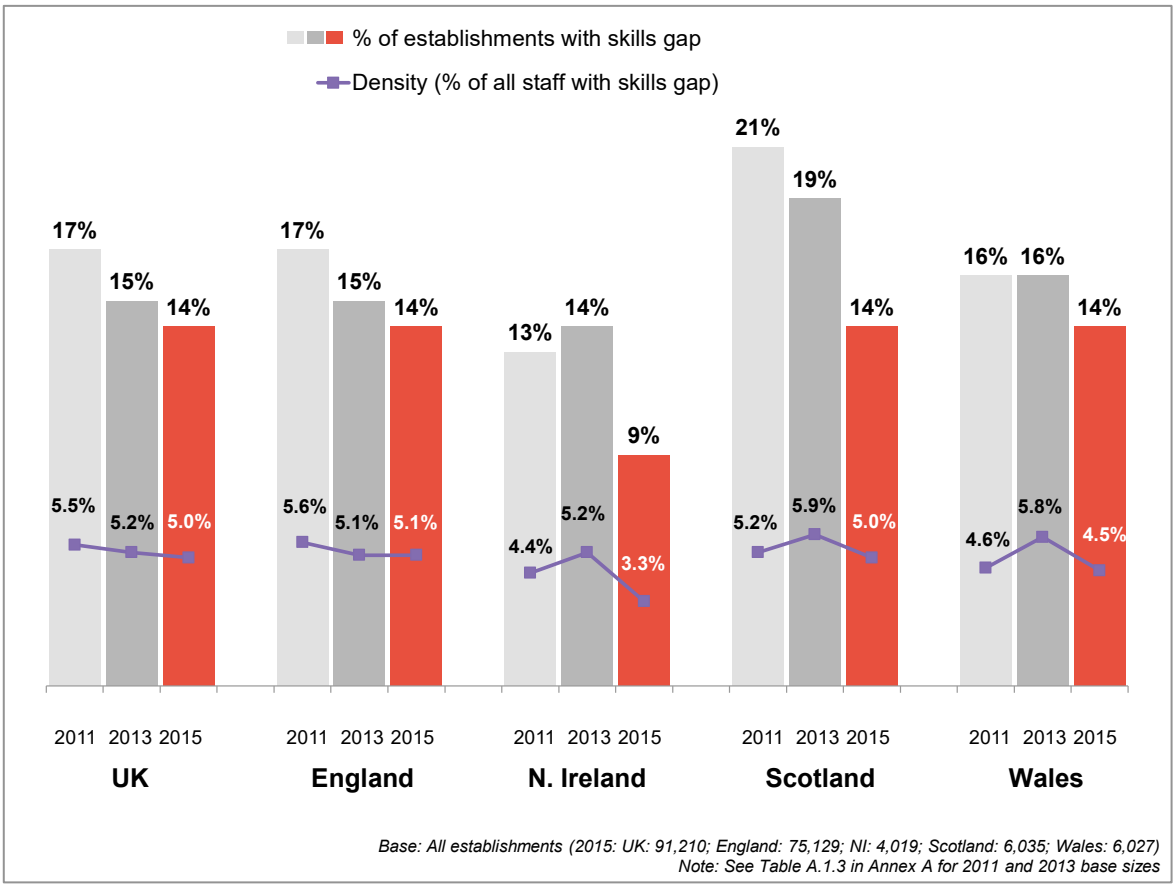
3.3 The incidence, volume and density of skills gaps

The vast majority of employers (86 per cent) reported that all of their staff were fully proficient at their job. However, one in seven establishments (14 per cent) considered that at least some of their staff were not fully proficient (i.e. they reported skills gaps). In total, 1.4m employees across the UK were perceived to be lacking proficiency, equating to 5.0 per cent of the total workforce.

[17] Half of employers with skills gaps were assigned to the 'new' skill descriptors, whereas the other half were assigned to the 'old' skill descriptors used in ESS 2011 and 2013 to facilitate comparisons over time. Time series data on the skills lacking among applicants according to the 'old' skill descriptors are shown in Tables A.3.8 and A.3.8a in Appendix A. Further information on the changes to the skill descriptors used is provided in the ESS 2015 Technical Report (https://www.gov.uk/government/publications/ukces-employer-skills-survey-2015-uk-results).

The *proportion* of staff not fully proficient in their job (i.e. the skills gap density) fell from 5.5 per cent in 2011, to 5.2 per cent in 2013 and 5.0 per cent in 2015. This fall occurred predominantly in the devolved administrations. It was most notable in Northern Ireland where the density of skills gaps decreased from 5.2 per cent in 2013 to 3.3 per cent in 2015. In England, the skills gap density remained stable between 2013 and 2015, at 5.1 per cent.

Figure 3.1 Incidence and density of skills gaps by country



Base: All establishments (2015: UK: 91,210; England: 75,129; NI: 4,019; Scotland: 6,035; Wales: 6,027)
Note: See Table A.1.3 in Annex A for 2011 and 2013 base sizes

Larger employers were more likely than smaller employers to experience skills gaps, reflecting in part that with a larger workforce, it was more probable that at least one employee would lack full proficiency. Six per cent of establishments with 2-4 employees experienced skills gaps, rising to 43 per cent of those with 250 or more employees. These larger employers also experienced a higher skills gap density: 2.6 per cent of the workforce employed by establishments with fewer than five staff were described as not fully proficient, rising to 6.7 per cent among those with 250+ staff. While this pattern of increased density by size of establishment existed in 2013 and 2011, it was more pronounced in 2015.

3.3.1 The sectoral distribution of skills gaps

While the overall UK trend reflected both a lower incidence and a lower density of skills gaps compared to 2013, this was not reflected across all sectors of the economy.

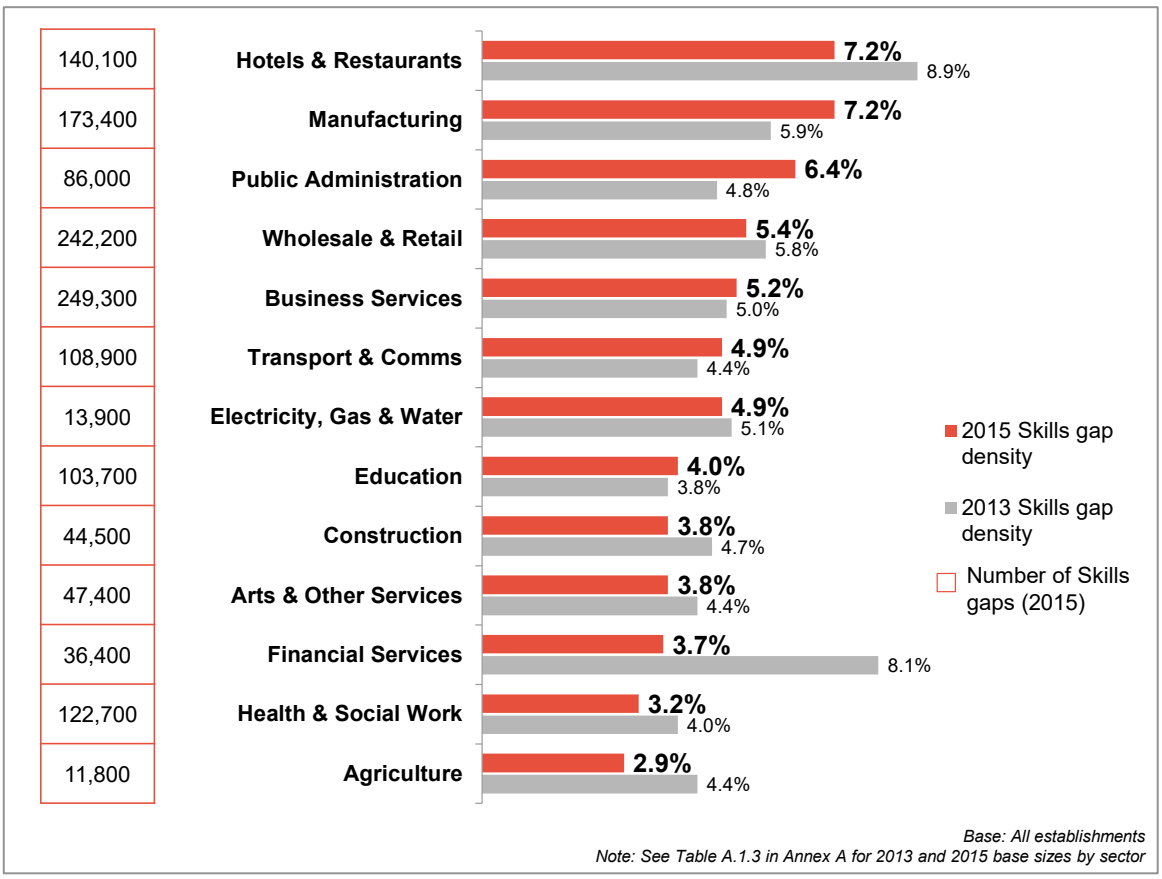
In a handful of sectors, the skills gap density was actually higher than in 2013. As Figure 3.2 shows, the Manufacturing sector in particular demonstrated this trend: here the skills gap density rose from 5.9 per cent in 2013 to 7.2 per cent in 2015 (from 138,800 to 173,400 staff respectively).

Conversely, the sector that traditionally experiences the highest density of skills gaps, Hotels and Restaurants, saw this density decrease from 8.9 per cent in 2013 to 7.2 per cent in 2015 (from 159,400 to 140,100 staff respectively), equalling the density in the Manufacturing sector.

The biggest decrease in skills gap density occurred in Financial Services, where the 2015 figure of 3.7 per cent represented a return to 2011 levels, following a spike in skills gaps in 2013.

While skills gap density was highest in the Hotels and Restaurants, and Manufacturing sectors, the highest *number* of skills gaps existed among establishments in the Wholesale and Retail sector (242,200 skills gaps) and the Business Services sector (249,300). This is to be expected given these sectors accounted for higher proportions of the workforce than any other.

Figure 3.2 Density of skills gaps by sector



There were also distinct sectoral patterns between the nations:

- In England, the skills gap density in some of the largest sectors of the workforce (such as Wholesale and Retail, and Health and Social Work) were consistent over time. In contrast, establishments in these sectors in Northern Ireland, Scotland and Wales experienced a considerable decrease in skills gap densities.
- The drop in the skills gap density among staff in the Financial Services sector was driven by establishments in England.

The drop in the skills gap density among Hotels and Restaurants staff occurred across all nations, however.

Tables A.3.1 and A.3.2 in Annex A provide a detailed breakdown of the incidence, number and density of skills gaps by size of establishment and sector, as well as the skills gap density by sector within nation.

3.3.2 The occupational distribution of skills gaps

At an occupational level, skills gaps were more likely to be found in what are traditionally described as unskilled or semi-skilled occupations. As Table 3.1 shows, around seven per cent of Sales and Customer Service staff, Machine Operatives[18] and those in Elementary occupations were reported to be lacking full proficiency (compared with five per cent overall). Collectively these occupations accounted for around a third (34 per cent) of all employees, but approaching half (47 per cent) of all skills gaps. This was broadly consistent with the occupational pattern of previous years.

Table 3.1 Number and density of skills gaps by occupation

		Number of skills gaps	% of staff reported as having skills gaps (Skills Gap density)		
		2015	2011	2013	2015
Row percentages	*Unwtd base 2015*	n	%	%	%
UK	*91,210*	1,380,200	5.5	5.2	5.0
Occupation					
Managers	*87,590*	129,400	3.2	3.0	2.7
Professionals	*17,483*	102,100	4.2	3.8	3.0
Associate Professionals	*13,309*	88,300	4.9	5.3	5.3
Administrative and Clerical	*53,622*	187,000	4.9	4.9	5.4
Skilled Trades	*24,025*	108,100	5.4	5.5	5.5
Caring, Leisure and Other Services	*15,310*	119,400	5.4	4.8	4.1
Sales and Customer Service	*25,940*	228,400	8.3	7.8	6.5
Machine Operatives	*14,105*	161,700	6.0	5.4	7.0
Elementary occupations	*31,970*	255,800	7.6	7.3	6.9

Base: All establishments with staff in each occupation.

Percentages are based on all employment, rather than all establishments; figures therefore show the number of skills gaps as a proportion of all employment in each occupation.

Note: The number of employees not fully proficient has been rounded to the nearest 100.

There was a higher skills gap density among Machine Operatives in 2015 (7.0 per cent) than in 2013 (5.4 per cent). As noted in Chapter 2, it was also this occupation which experienced the greatest increase in the density of skill-shortage vacancies. There were clear signs therefore that businesses were suffering from both internal and external skills challenges with Machine Operatives.

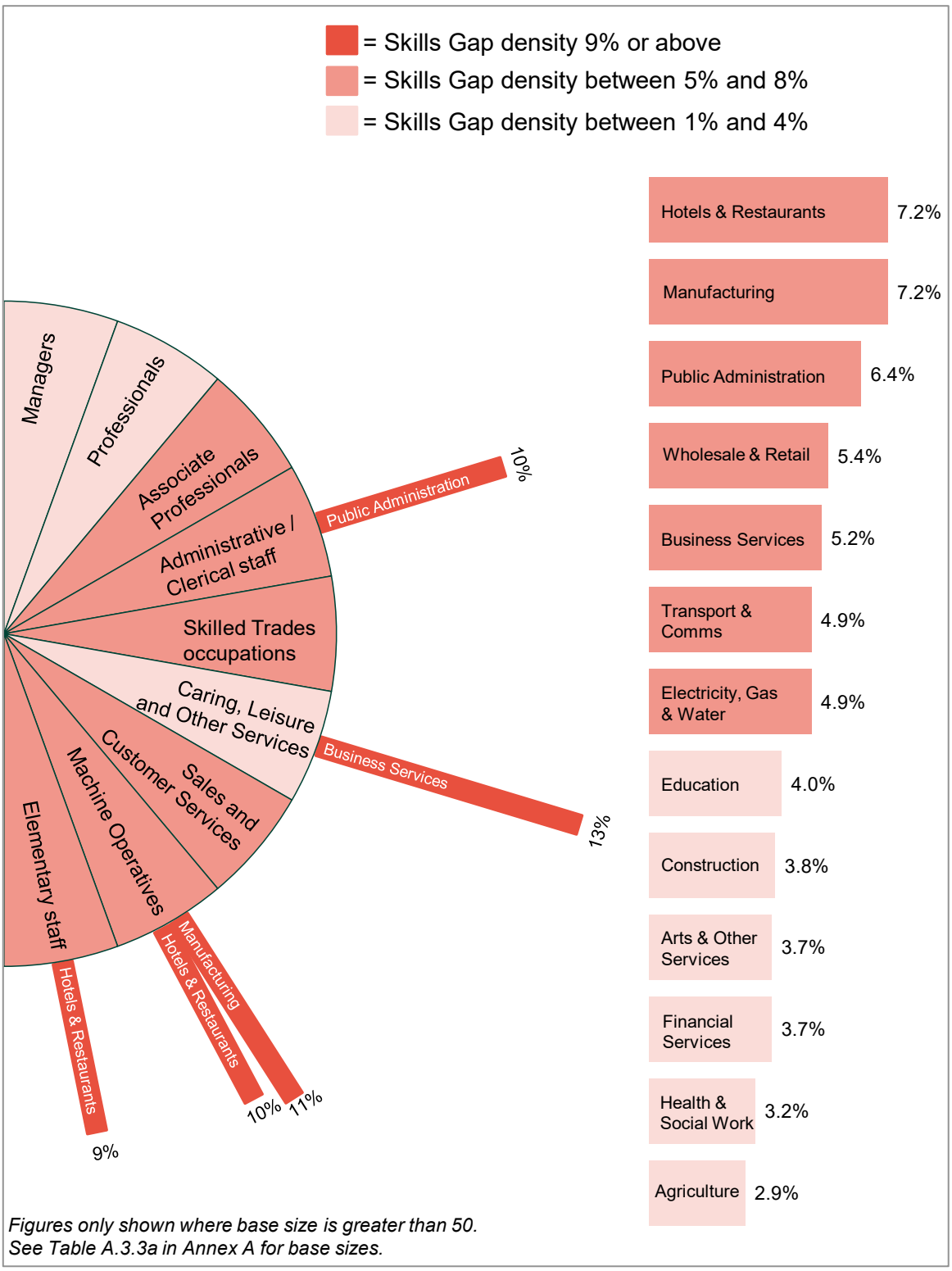
[18] These include drivers, food and drink process operatives, and scaffolders, among other occupations.

Administrative and Clerical staff were the only other occupation where the skills gap density increased (from 4.9 per cent in 2013 to 5.4 per cent in 2015). Generally speaking those in the most highly skilled occupations (Managers and Professionals) were most likely to be fully proficient in their job (with skills gap densities of 2.7 and 3.0 per cent respectively).

Figure 3.3 illustrates skills gap density by occupation, and pinpoints particularly marked occupational patterns *within* sectors. Highlighted in dark red are occupations within a sector where skills gap density was at least nine per cent (at least four percentage points higher than the average across all staff).

This highlights that within the Manufacturing and Hotels and Restaurants sectors, where the skills gap density was highest, a lack of proficiency was particularly acute in the more labour-intensive occupations. In the Manufacturing sector this would include vehicle or machine operatives and assemblers, while in the Hotels and Restaurants sector it might include cleaners, waiters and kitchen assistants.

Figure 3.3 Density of skills gaps by occupation within sector



Figures only shown where base size is greater than 50.
See Table A.3.3a in Annex A for base sizes.

Tables A.3.3 and A.3.4 in Annex A provide detailed breakdowns of skills gap density by occupation *within* country and sector respectively.

3.4 The causes of skills gaps

Employers identified a variety of factors that led to skills gaps in their establishment. The main causes of staff not being fully proficient overall are presented in Table 3.2. The figures show what proportions of skills gaps were caused by the various factors reported by establishments. Respondents were able to give more than one cause for skills gaps within each occupation.

As in 2013, transient causes dominated, i.e. one would expect the skills gaps to be resolved relatively quickly, but the majority of establishments also suggested additional factors that had led to skills gaps. Three in five skills gaps (60 per cent) were deemed to be caused, at least in part, by the fact that staff were new to the role, while a similar proportion (56 per cent) were attributed to employees' training being only partially complete. Combined, these transient factors contributed, at least to some extent, to 73 per cent of all skills gaps.

Table 3.2 Main causes of skills gaps (prompted)

	2011	**2013**	**2015**
Unweighted base	*20,820*	*20,228*	*18,265*
	%	%	%
Staff are new to the role	56	62	60
Their training is currently only partially completed	55	57	56
Staff lack motivation	38	42	34
They have been on training but their performance has not improved sufficiently	35	39	29
The introduction of new working practices	28	32	28
Staff have not received the appropriate training	27	29	26
Unable to recruit staff with the required skills	22	26	26
The introduction of new technology	20	20	20
The development of new products and services	19	21	19
Problems retaining staff	12	18	18
Summary: New to role and/or training incomplete	72	75	73

Base: All establishments with skills gaps; up to two skills gaps followed up.

Percentages shown as a proportion of all skills gaps followed up rather than all establishments with skills gaps. Figures therefore show the proportion of skills gaps in each nation caused by each stated reason.

While the hierarchy of causes of skills gaps stayed consistent with 2013, there were some notable differences. In particular there was a decrease in the proportion of skills gaps caused by staff lacking motivation (from 42 per cent to 34 per cent in 2015) and those caused by training not improving performance sufficiently (from 39 per cent to 29 per cent in 2015).

In sectors with higher skills gap densities – Manufacturing and Hotels and Restaurants – causes of skills gaps were more likely to be transient than in most other sectors (79 and 82 per cent respectively). Skills gaps in the Hotels and Restaurants sector were also more likely to be caused by performance not improving following training (38 per cent compared with 29 per cent overall), and problems retaining staff (29 per cent compared with 18 per cent overall).

Employers in the Public Administration and Agriculture sectors were least likely to report that skills gaps were caused by transient factors. Instead key causes of skills gaps in the Public Administration sector centred around development and innovation in the workplace:

- 57 per cent of skills gaps in this sector were attributed to the introduction of new working practices.
- 49 per cent of skills gaps were attributed to the introduction of new technology.
- 38 per cent of skills gaps were attributed to the development of new products and services.

In the Agriculture sector, patterns of causes were less clear cut.

Table A.3.5 in Annex A contains a breakdown of the most common causes of skills gaps by sector.

The two most common causes of skills gaps (staff being new to the role and training not being complete) remain the most common causes of skills gaps across all occupations. Among more labour-intensive occupations, where skills gaps tended to be more prevalent, a lack of motivation was also perceived to be a key cause of these skills gaps. This was particularly the case for those in Elementary occupations (50 per cent compared with 19 to 38 per cent across all other occupations). Training not improving staff performance was also a more common cause of skills gaps among Sales and Customer Service and Elementary occupations (both 36 per cent) compared with other occupations (21 to 32 per cent). Table A.3.6 in Annex A provides a breakdown of the factors that caused skills gaps by occupation.

3.5 Skills lacking internally

The skills that employers perceive their staff to be lacking can broadly be categorised into two: on the one side are the technical and practical skills that define the content of a job role, and on the other side are the softer 'people and personal' skills which can define the way in which job roles are delivered. These people and personal skills are often less tangible but can have as great an impact on the efficiency of a workforce[19].

Five of the six skills most commonly found to be lacking among existing staff related to people and personal skills, as Figure 3.4 illustrates. In particular, employers raised issues around poor time management and prioritisation of tasks (cited in relation to 59 per cent of skills gaps), demonstrating that staff struggled to cope with the various demands placed on them. Team working was also widely cited as lacking among existing staff (56 per cent).

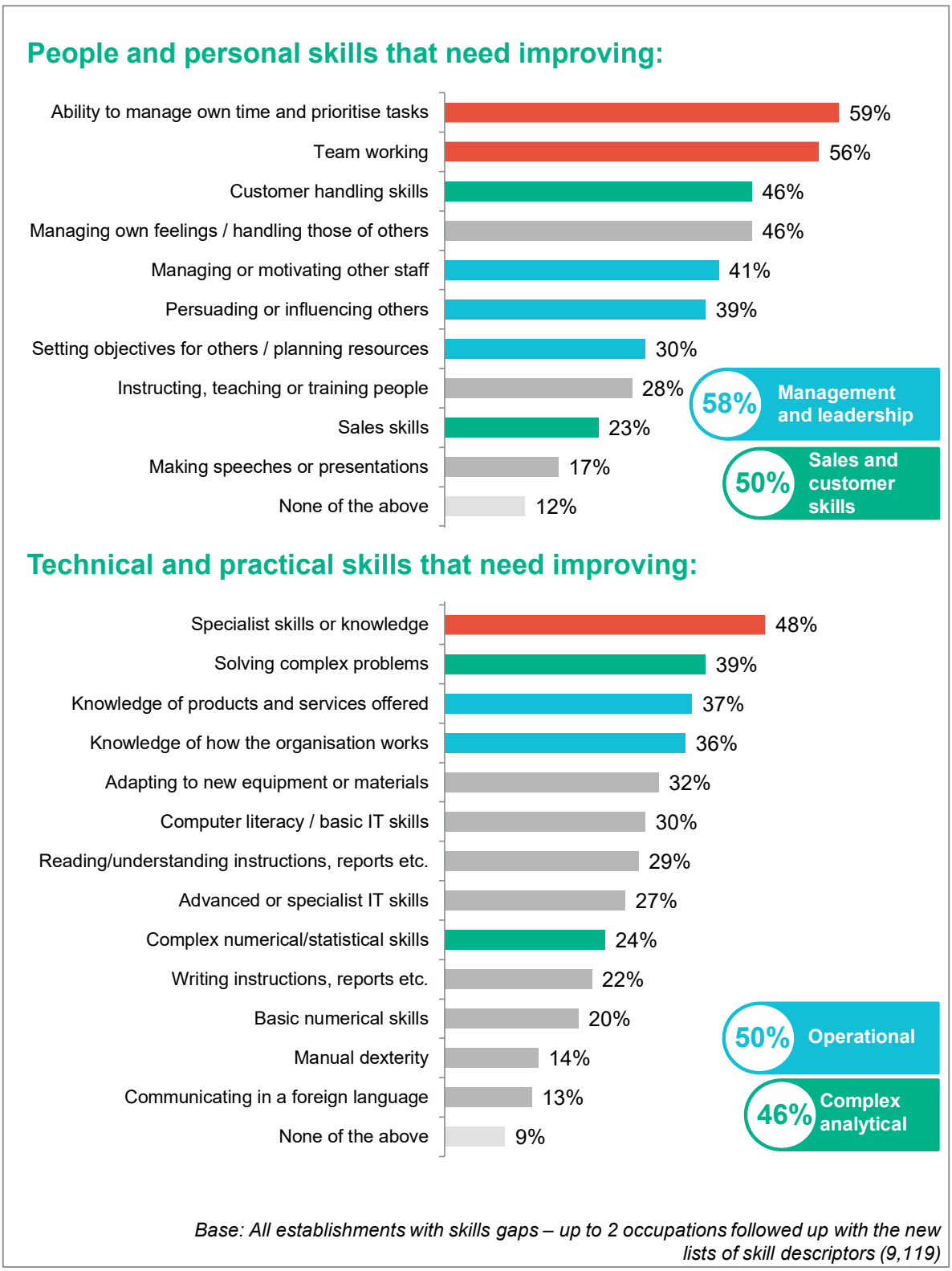
Establishments also faced challenges with management and leadership within their organisation. Combining various specific skills that pertained to these issues ('managing or motivating staff', 'persuading others' and 'setting objectives'), a lack of management and leadership skills was cited in relation to nearly three-fifths of all skills gaps. A slightly lower proportion of skills gaps could be attributed to sales and customer skills[20].

Specialist or knowledge-based skills that are required for the particular job role of the employee were mentioned in relation to half of all skills gaps (48 per cent), rendering this the most common technical and practical skill lacking among existing staff. A similar proportion of skills gaps related to a lack of operational knowledge: 37 per cent of skills gaps were attributed to a lack of knowledge of the products and services the establishment offers and 36 per cent to a lack of knowledge in how the organisation worked. There were also deficiencies in complex analytical skills: 39 per cent of skills gaps were attributed to a lack of proficiency in solving complex problems, and 24 per cent were attributed to a lack of complex numerical or statistical skills.

Improving technologies in the workplace is perceived to be a critical area of change for businesses over the next few years (UKCES, 2014a). However, a third of all skills gaps (32 per cent) related to a lack of proficiency in adapting to new equipment or materials. A lack of basic IT skills was cited for a similar proportion of skills gaps (30 per cent), while advanced IT skills were also commonly lacking (27 per cent), particularly among those in high-skill or middle-skill roles (such as Professionals and Administrative and Clerical staff).

[19] As noted in the introduction to this chapter, a new list of skill descriptors were developed for ESS 2015 in order to better understand the skills lacking among staff. Half of employers with skills gaps were assigned to the 'new' skill descriptors, whereas the other half were assigned to the 'old' skill descriptors used in ESS 2011 and 2013 to facilitate comparisons over time. Time series data on the skills lacking among applicants according to the 'old' skill descriptors are shown in Tables A.3.8 and A.3.8a in Appendix A. Further information on the changes to the skill descriptors used is provided in the ESS 2015 Technical Report (https://www.gov.uk/government/publications/ukces-employer-skills-survey-2015-uk-results).
[20] This includes 'sales skills' and 'customer handling skills'.

Figure 3.4 Skills lacking among staff with skills gaps



Base: All establishments with skills gaps – up to 2 occupations followed up with the new lists of skill descriptors (9,119)

The remainder of this section focusses on the occupational dimension of skills, especially those occupations where skills gaps were more prevalent. Across all occupations where skills gaps existed however, the ability to manage time and prioritise tasks was a recurring issue. It should also be noted that some skills gaps particularly affected specific occupations in predictable ways (management and leadership skills lacking among Managers, sales and customer skills lacking among Sales and Customer Services staff).

While Managers were most likely to be fully proficient in their job role, still nine per cent of all skills gaps were found in this occupation, with managing or motivating other staff the most common skill that was lacking (68 per cent). Managers were also widely perceived to be lacking in complex analytical skills (55 per cent for example were deemed to lack proficiency in solving complex problems). This theme ran through all high-skill occupations[21], as well as among Administrative and Clerical staff. A lack of complex analytical skills could have serious implications on the ability of staff to respond to increasingly dynamic workplaces and developments in technology and thus restrict establishments' potential for innovation and long-term growth.

Time management and task prioritisation skills were most commonly lacking among Professional staff[22] with skills gaps, and those in Administrative and Clerical roles (68 and 67 per cent respectively), suggesting that these staff in particular struggle with the various demands of their job role. Professional staff also appeared to be held back by a lack of specialist or knowledge-based skills required for a specific job role (70 per cent).

There was a relatively high level of skills gaps among Sales and Customer Services staff. Alongside a lack of customer handling skills (64 per cent) and sales skills (53 per cent), staff with skills gaps in this occupation were often lacking knowledge on the operational side of the business. Over half of skills gaps in this occupation were attributed to a lack of knowledge of products and services their company offered (53 per cent), which could be of particular concern to employers, given that staff in these occupations tend to be outward facing representatives.

Staff in labour-intensive roles (i.e. Machine Operatives[23] and Elementary staff) were most likely to be lacking proficiency in their job role. For both occupations, team working was the predominant skill lacking: 62 per cent of Machine Operatives and 69 per cent of Elementary staff with skills gaps lacked these skills. For Machine Operatives, reading and understanding instructions (44 per cent) and adapting to new equipment or materials (41 per cent) were skills lacking more commonly than in other occupations.

[21] This term includes Managers, Professionals and Associate Professionals.
[22] This would include teachers, consultants and programmers.
[23] This would include drivers, food and drink process operatives, and scaffolders, among other occupations.

Table 3.3 shows the three most common skills lacking by occupation and then the three skills in particular short supply when compared with the UK average.

Table 3.3 Most common skills lacking among staff with skills gaps, by occupation

Occupation	Skills Gap Density	Skills most commonly lacking	Three skills in short supply compared with average
Managers	2.7%	Managing or motivating other staff Setting objectives / planning resources Time management and task prioritisation	Setting objectives / planning resources Managing or motivating other staff Persuading or influencing others
Professionals	3.0%	Specialist skills or knowledge Time management and task prioritisation Team working	Specialist skills or knowledge Advanced or specialist IT skills Instructing, teaching or training people
Associate Professionals	5.3%	Specialist skills or knowledge Time management and task prioritisation Solving complex problems	Advanced or specialist IT skills Setting objectives / planning resources Making speeches or presentations
Administrative / Clerical staff	5.4%	Time management and task prioritisation Customer handling skills Team working	Advanced or specialist IT skills Customer handling skills Complex numerical/statistical skills
Skilled Trades occupations	5.5%	Specialist skills or knowledge Time management and task prioritisation Team working	Specialist skills or knowledge Manual dexterity Adapting to new equipment or materials
Caring, Leisure and Other Services	4.1%	Time management and task prioritisation Specialist skills or knowledge Team working	Writing instructions, reports etc. Specialist skills or knowledge Reading/understanding instructions, reports etc.
Sales and Customer Services	6.5%	Customer handling skills Time management and task prioritisation Knowledge of products and services	Sales skills Customer handling skills Knowledge of products and services
Machine Operatives	7.0%	Team working Time management and task prioritisation Managing own or others' feelings	Reading/understanding instructions, reports etc. Basic numerical skills Adapting to new equipment or materials
Elementary staff	6.9%	Team working Time management and task prioritisation Customer handling skills	Team working Communicating in a foreign language Manual dexterity

Base: All establishments with skills gaps in each occupation – up to two occupations followed up (9,119).

Tables A.3.7a-e in Annex A present the skills lacking in the workforce by occupation, nation and sector.

3.6 The impact of skills gaps

Although fewer establishments in 2015 than in 2011 or 2013 reported skills gaps, a higher proportion said these had had a negative impact on their organisation's performance. This was evident in that:

- In 2015, 66 per cent of employers with skills gaps reported these as having an impact on their organisation's performance, up from 63 per cent in 2013 and 61 per cent in 2011.
- 17 per cent reported that their skills gaps were having a major impact on their business' performance, slightly but significantly up from 16 per cent in 2013 and 15 per cent in 2011.

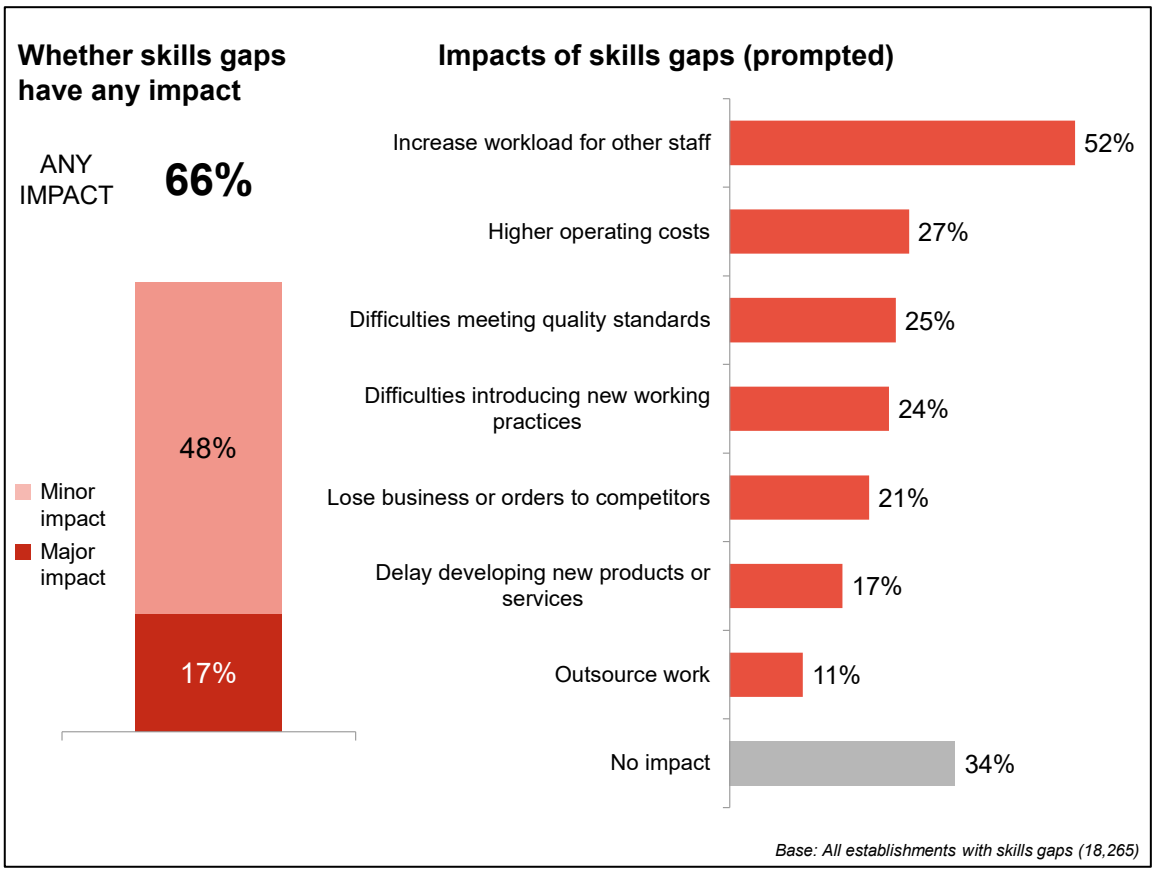
There was little difference between countries in terms of major impacts. However, establishments in Northern Ireland and Scotland were more likely to cite any impact from skills gaps (69 and 70 per cent respectively, compared with 65 per cent in England and 64 per cent in Wales).

Establishments more likely to suffer major impacts from skills gaps included:

- Small businesses: 23 per cent of employers with 2-4 staff reported experiencing major impacts.
- Employers in the Hotels and Restaurants sector of which 21 per cent reported major impacts on their establishment (n.b. it was this sector which experienced the highest skills gap density).

Figure 3.5 shows the extent of impact of skills gaps in 2015 and the implications for the business. Table A.3.9 in Annex A provides a breakdown of extent of impact by size, sector and country.

Figure 3.5 Impacts of skills gaps



As seen in previous years, the most common impact of skills gaps was an increased workload for other staff: this affected over half of establishments with skills gaps (52 per cent, rising to 60 per cent among establishments in Public Administration).

Establishments also suffered financial impacts as a result of their internal skills challenge. The fact that not all of their staff were fully proficient drove up the operating costs of over a quarter of employers with skills gaps (27 per cent), an issue that was more common in Agriculture (38 per cent) and Manufacturing (37 per cent). Additionally, 21 per cent lost business or orders to competitors, a scenario that affected small establishments most of all (26 per cent among employers with 2-4 staff).

Skills gaps also impacted on establishments' ability to innovate, signalling more long-term business implications. These impacts varied according to the size of the establishment. While a quarter of establishments with skills gaps (24 per cent) had difficulty introducing new working practices, this was much higher among those with 250+ staff (34 per cent). Conversely, small establishments were more likely to experience delays in developing new products or services (23 per cent among those with 2-4 staff compared with 17 per cent overall).

Table A.3.10 in Annex A provides a breakdown of impacts of skills gaps by size, sector and country.

3.7 Employer response to skills gaps

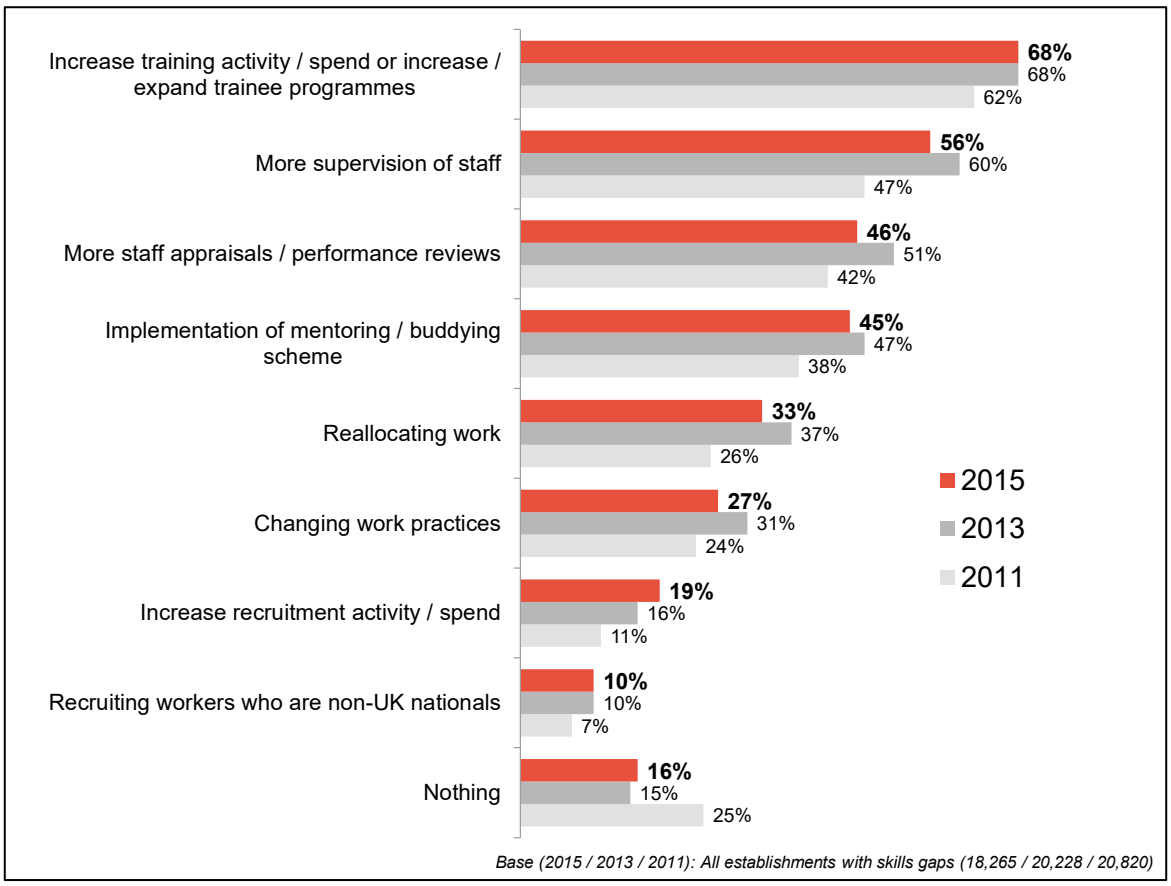
The vast majority of employers with skills gaps (85 per cent) had taken steps to tackle them. In addition five per cent reported that they had not taken steps at the time but planned to do so in future. Just short of one in ten (nine per cent) of establishments had taken no action and had no plans in place to tackle these issues.

Smaller establishments in particular might need more help responding to their internal skills challenges. Establishments with 2-4 staff were less likely to experience skills gaps than larger employers and were also less likely to have responded to them: 75 per cent of small establishments with skills gaps had taken steps to tackle them compared with 85 per cent overall. Indeed, there was evidence to suggest that the scale of the skills gaps challenge proved too much for some of these small businesses: those small businesses that cited major impacts as a result of skills gaps were even less likely to have taken steps to address them (68 per cent).

Table A.3.11 in Annex A provides a breakdown of actions taken to tackle skills gaps by country, size and sector.

As Figure 3.6 illustrates, additional training remained at the forefront of establishments' approaches to tackling internal skills gaps: nearly seven in ten establishments (68 per cent) increased their training activity or spend in order to improve the skills levels of their employees. This was consistent with the findings from 2013.

Figure 3.6 Actions taken to overcome skills gaps (prompted)



Another common method that establishments employed to respond to skills gaps was harnessing the experience of existing staff to improve the performance of others (56 per cent for example introduced more supervision of staff). Such actions were particularly common among employers in the Education sector.

Changing structural approaches to work in response to skills gaps was less common: 33 per cent of establishments with skills gaps reallocated work and 27 per cent changed their working practices.

Finally, only one in five establishments with skills gaps (19 per cent) responded by increasing recruitment spend and activity. From a time series perspective, this represented a steady increase over time (11 per cent in 2011; 16 per cent in 2013). This ties in with the considerable increase in the number of vacancies noted in Chapter 2 and with it a large rise in the total number of skill-shortage vacancies.

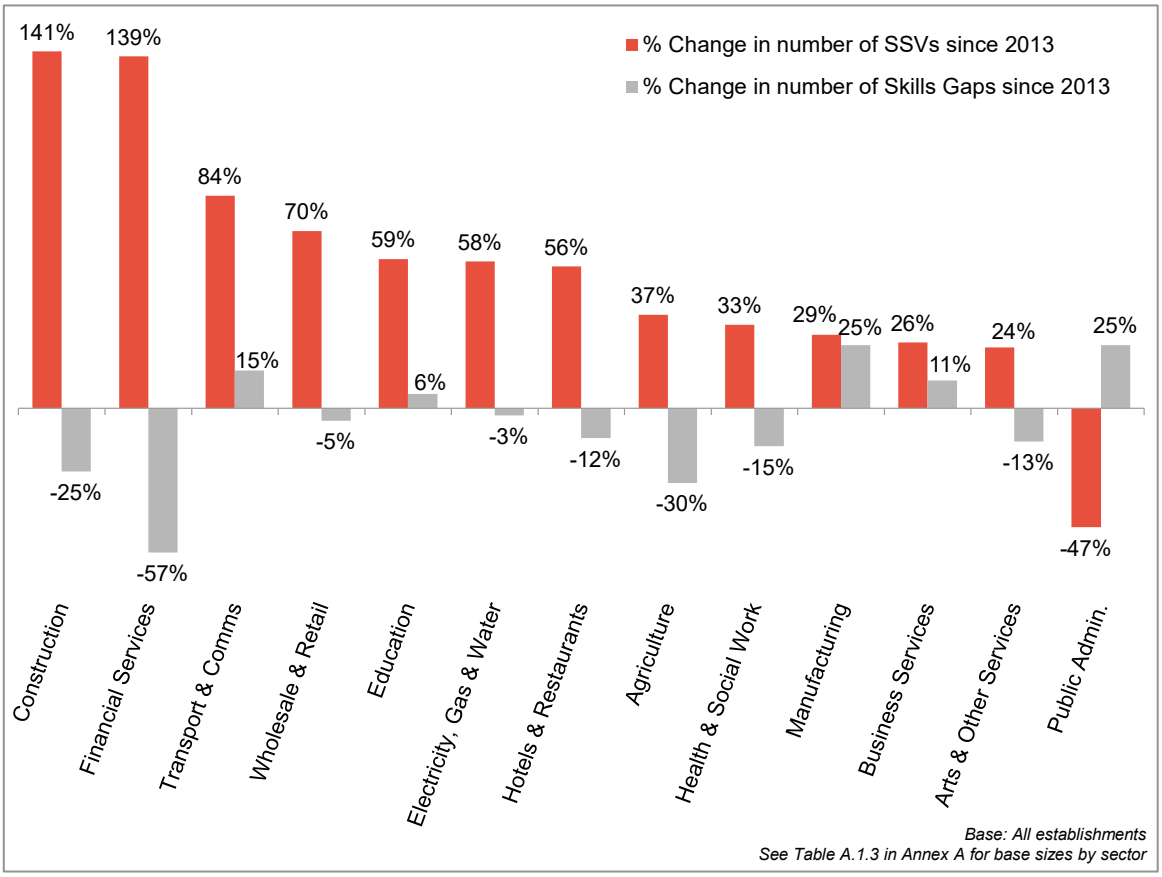
3.8 Skills deficiencies among existing staff and when recruiting staff

We have now explored skills lacking both among potential recruits and within the existing workforce. It may be the case that establishments experienced substitution between these two measures of labour market deficiency. Some employers when faced with inadequate applicants will leave the vacancy unfilled, in which case the issue reveals itself as a skill-shortage vacancy; other employers may feel it is better to recruit someone who is not appropriately skilled, in which case the deficiency will reveal itself as a skills gap, albeit potentially a transient one.

3.8.1 The relationship between skill-shortage vacancies and skills gaps

There appeared to be no sign that the scale of the skills challenge at this collective level had changed since 2013. Approaching one in five establishments (18 per cent) were suffering from either form of skills deficiency in 2015, in line with 2013, as Table A.3.12 in Annex A shows. However, by 2015 these skills challenges had become more external, due to the density of skill-shortage vacancies increasing, and the density of skills gaps decreasing (albeit slightly). Figure 3.7 illustrates how the skills challenge evolved over time, by sector.

Figure 3.7 Changes in number of skill-shortage vacancies and skills gaps over time, by sector



This serves to illustrate the complex trends occurring across various sectors at this collective level. For the majority of sectors, and in line with the overall UK story, skills challenges became more external, with a decrease in the density of skills gaps and an increase in the density of skill-shortage vacancies.

This was most acute for employers in Financial Services and Construction, where the number of skill-shortage vacancies more than doubled and the number of skills gaps decreased by around half and a quarter respectively. However, there were certain sectors that experienced a different pattern, most notably:

- Manufacturing, where the skill-shortage vacancy density and skills gap density increased by similar proportions.
- Public Administration, which exhibited the only reversal of the trend towards external challenges, i.e. fewer skill-shortage vacancies and more skills gaps.
- Transport and Communications, Manufacturing, and Business Services, where the skill-shortage vacancy density increased, along with an increase of between an eighth and a quarter of skills gaps.

3.8.2 Skills lacking internally and externally

We can also explore the dynamic between the skills that were perceived to be lacking among existing staff and potential recruits, although such comparisons are not perfect owing to the difficulty in observing skills lacking among people external to the business.

In general the issues faced externally and internally followed a similar hierarchy. Looking at specific people and personal skills, the greatest imbalance between internal and external challenges related to team working. This contributed to over half of all skills gaps (56 per cent), compared with only a third of skill-shortage vacancies (33 per cent). This suggests that employers could do more to assess the collaborative characteristics of candidates prior to offering employment, as team working was clearly a common issue among existing staff. Broad management and leadership skills challenges were also much more common among existing staff (58 per cent of all skills gaps) than potential recruits (46 per cent of skill-shortage vacancies). Table A.2.11 and A.3.7d contain people and personal skills lacking externally and internally, split by sector.

Turning to practical and technical skills, the demand for specialist skills or knowledge seemed greater for those establishments with skill-shortage vacancies: 64 per cent of skill-shortage vacancies related to these specific job-related skills compared with 48 per cent of skills gaps. This may be a result of existing staff having had a chance to ‘bed in’ and develop the specific skills required for their job role, and/or that employers are generally less likely to hire staff whose skills are not relevant for the available job roles.

While basic IT skills and being able to adapt to new equipment were not regarded by many as skills lacking in potential recruits (22 and 20 per cent respectively), such skills revealed themselves to be a greater issue among existing staff (30 and 32 per cent). One could posit a variety of theories to explain these differences, but they do at least illustrate that – in the context of a rapidly changing technological landscape – employers could do more to ensure their existing staff are able to adapt and harness new technologies.

There was also plenty of divergence within sector. Manufacturing has been identified as a sector that struggled with skills challenges, especially internally. Here, existing staff were much more likely to lack skills in basic IT, reading and understanding instructions or reports and adapting to new equipment, compared with potential recruits.

Tables A.2.10 and A.3.7c contain the technical skills lacking externally and internally, split by sector.

Similar patterns, across both sets of skills frameworks, prevailed at the occupational level, and we have focussed below on key areas of interest identified earlier in this report:

- In Skilled Trades roles, a lack of skills relating to manual dexterity and adapting to new equipment persisted as common internal and external challenges.
- Among Machine Operatives, there was a clear story of internal skills issues around an inability to read instructions, adapt to new equipment and basic numeracy, which were not as apparent among the skills lacking in applicants.
- For Professionals, time management skills were commonly lacking among existing staff but less frequently identified as skills lacking among applicants. Both internally and externally however, the specialist skills or knowledge of Professionals was deemed to be most commonly lacking.

Tables A.2.8, A.2.9, A.3.7a and A.3.7b in Annex A contain people and personal skills lacking, as well as technical or practical skills lacking, split by occupation.

3.9 Conclusions

There are increasing proportions of staff within organisations fully proficient in their job role. However, to an extent this merely reflects a shift in the balance of the skills landscape, whereby the challenge is weighted more towards potential recruits who lack the requisite skills for the job role, than towards internal staff.

Nevertheless, the survey points to particular areas of skills gaps among existing staff which, unless resolved, may prevent establishments from maximising their potential. Within people and personal skills, a lack of time management and task prioritisation skills – the two most common people and personal skills – point to a growing demand on staff to juggle multiple responsibilities. Such issues could hamper productivity in the workplace.

A lack of complex analytical skills was also apparent in existing staff. Such skills are of increasing importance as employers make use of more elaborate technologies. Limitations in this area could prevent companies from engaging in innovative practices that are often the pre-cursor to growth.

So far this report has focussed on the skills deficiencies that exist both externally and within an organisation, and how these issues affect business performance. In the next chapter we explore the skills imbalance that can occur when establishments do not make the most effective use of the skills and qualifications their employees possess.

4 Employer perceptions of under-use of skills and qualifications

4.1 Chapter Summary

Some employers may experience a skills imbalance where they perceive that staff are being “under-utilised”, that is, the skills and qualifications that these staff hold are above those required for their current role. **Three in ten employers reported that they had at least one employee who fits this description within their establishment** (30 per cent), with two million workers reported to be under-utilised in this way.

There are a number of different reasons given by employers for the under-use of skills. **A quarter (26 per cent) of employers that reported under-use of skills said the reason was staff not being interested in taking on a higher level role**; 15 per cent reported that the working hours suited them better. These would seem to indicate a personal choice being made by the individual because these job roles better suit their needs and circumstances. However, other reasons given by employers related to what could be considered to be a shortfall in the volume of jobs available that would use their skills, i.e. a lack of demand for their skills in the labour market. For example, 11 per cent of employers reporting under-utilisation said the reason was a lack of jobs in the desired higher level role and 10 per cent reported that they were gaining experience for a higher level role.

Under-utilisation represents not only a waste of individuals’ talent but also potentially a missed opportunity for employers to increase performance and productivity, improve job satisfaction and employee well-being, and stimulate investment, enterprise and innovation.

4.2 Introduction

As well as shortages of skills in the available labour market and/or among the existing workforce, skills imbalance can occur within establishments when the skills and qualifications held by individuals are not fully deployed in the workplace. We refer to this in this report as 'under-utilisation' (though the phenomenon is sometimes referred to elsewhere as 'under-use of skills', 'over-skilling', 'over-qualification' and/or 'under-employment').

Within ESS, under-utilisation is said to occur where a member of staff is perceived by their employer to have ***both*** qualifications ***and*** skills that are more advanced than required for their current job role. In 2011 and 2013, incidence was drawn from a single question[24], and under-utilisation was consistently reported by just under half of employers (48 per cent) in both years.

ESS 2015 has sought to fine-tune how the incidence of 'under-utilisation' is measured, identifying under-utilisation through a sequential two question approach[25], with a view to minimising suspected over-reporting (i.e. cases where staff have ***either*** skills ***or*** qualifications but ***not both***). Due to this adjusted measure of under-utilisation, no time series comparisons are presented in this chapter[26].

The 2015 survey also added questions to explore the occupational roles in which, *according to employers' perception*, under-utilisation most frequently occurs within an organisation, and the reasons why employers perceive that it occurs. Examining the perceived reasons for under-utilisation allows us to identify where there may be inefficiency within the market as individuals achieve qualifications and develop skills which they (and the economy) are then unable to exploit (and, therefore, the return on investment of skills development is constrained).

Supplementing the questions in this way facilitates the identification of potential opportunities for (some) employers to restructure the jobs that they have on offer, or to rethink their organisational practices, in order to better utilise the skills that could be available to them.

[24] You said that you have [NUMBER] staff who are **fully** proficient at their job. Of these, how many would you say have **both** qualifications **and** skills that are more advanced than required for their current job role?

[25] "How many [of your staff at this establishment] would you say have ***qualifications*** that are more advanced than required for their current job role?" followed by "And how many of [them] ***also*** have ***skills*** that are more advanced than required for their current job role?"

[26] The impact of this re-definition on levels of incidence of all under-utilisation can be reviewed in Table A.4.1 in Annex A, which provides a detailed breakdown of incidence of under-utilisation for 2011, 2013 and 2015, by country, size of establishment and sector.

4.3 Prevalence of under-utilisation

Across the UK, nearly two in five establishments (39 per cent) reported having employees with qualifications more advanced than required for their current job role. This reduced to three in ten (30 per cent) when establishments considered whether these individuals *also* had skills more advanced than needed. In volume terms, 2.0 million workers or seven per cent of the workforce had both under-utilised skills and under-utilised qualifications. There were some notable patterns of under-utilisation in different parts of the economy:

- Employers in Northern Ireland and England were marginally less likely than those in Wales and Scotland to report under-utilisation (28 and 30 per cent compared to 34 and 32 per cent, respectively). This presented a similar pattern to that reported in respect of internal and external skills deficiencies, where the proportions reported were consistently lowest in Northern Ireland.

- The likelihood of employers reporting under-utilisation among staff increased steadily through the size bands, from 29 per cent (2-4 employees) to 35 per cent (250+ employees). This was a pattern which reflected that seen with other key skills and training measures, albeit with a more restricted range of responses.

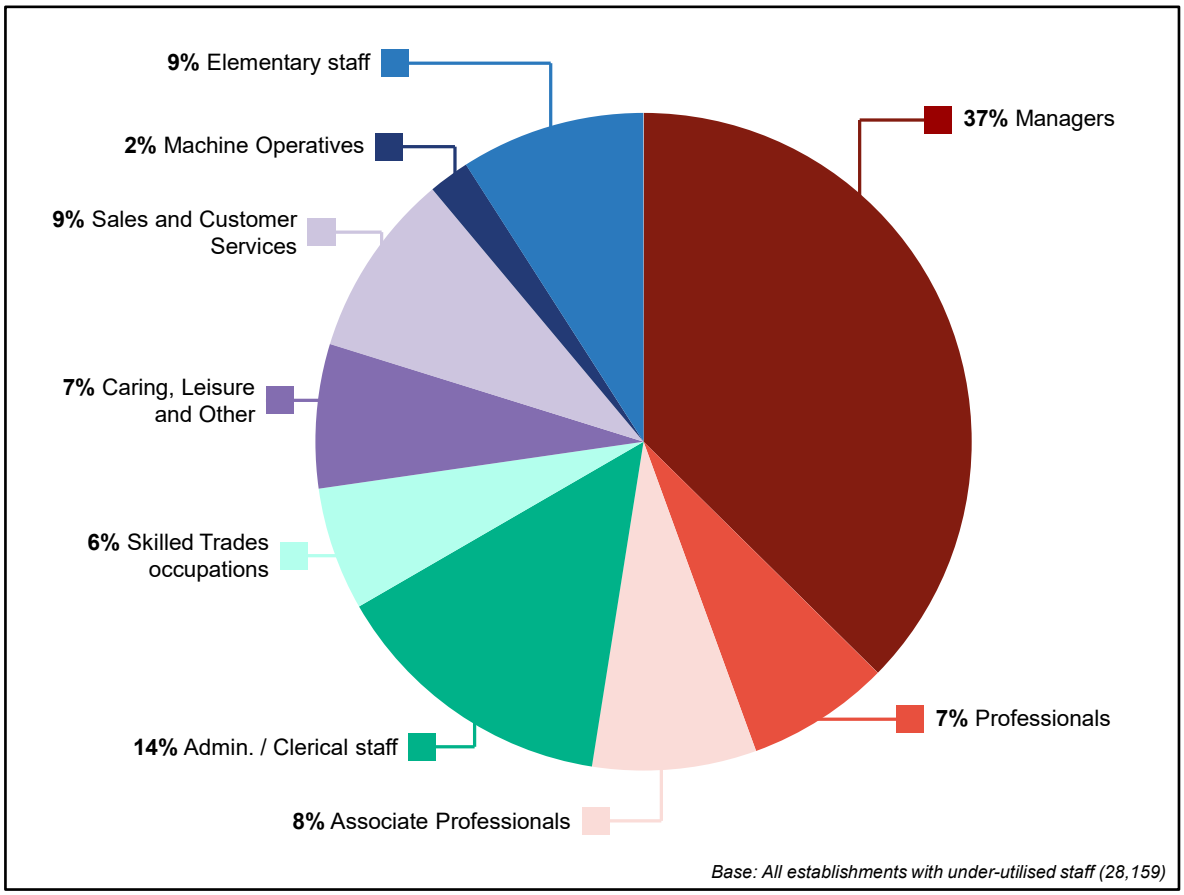
- Under-utilisation is most common within the Hotels and Restaurants sector (40 per cent), closely followed by Education (37 per cent), Public Administration (36 per cent), and Health and Social Work (36 per cent). These sectors also tended to have higher than average levels of skills deficiencies. The incidence of under-utilisation was notably lower for Agriculture (20 per cent).

It is possible that this is an underestimate: eight per cent of employers did not know whether their staff have skills or qualifications more advanced than required for their role, with this proportion rising to nearly half (46 per cent) among establishments employing 250+ workers. This is perhaps unsurprising, in particular within a larger workforce where it can be hard for employers to have full knowledge of ***all of*** the skills and qualifications that ***all*** individuals possess. This is all the more true if individuals have made a choice to restrict which skills and qualifications they want to bring to their choice of employment.

4.4 Occupations most affected by under-utilisation

Where employers reported that they had any staff whose qualifications and skills were under-utilised in their current job role, the survey asked them to identify the role in which this most commonly occurred. Figure 4.1 illustrates the roles in which employers most commonly reported under-utilisation.

Figure 4.1 Occupation most affected by under-utilisation



The stand-out finding is that nearly two in five employers (37 per cent) who reported under-utilisation said that it was most likely to occur among those occupying managerial roles. This is somewhat surprising as a finding, in the sense that managers sit at the top of the occupational hierarchy so one might surmise that there is not a higher level at which people could put their surplus skills and qualifications to use.

This can be explained to some extent by the fact that this is the most prevalent occupation across establishments, and there is a natural narrowing of the ladder as it reaches the top, meaning that the number of people who can continue to climb is limited. Furthermore, as individuals assume positions of management, they can commonly cease to need to utilise some of the more technical skills and qualifications that they have previously acquired (e.g. skills and qualifications that relate to the core service that their organisation provides). If they, or their employer, perceives these technical or service-related skills and qualifications to be “more advanced” than needed for their managerial role, then they may report this rise up the job ladder as reflecting under-utilisation of the full repertoire of their skills. It is also worth noting that, particularly within smaller establishments, the respondent is likely to be at management level, and individuals may be more likely to identify their own skills and qualifications as beyond those needed for their role.

Employers were asked to select ***the single occupation*** in which under-utilisation is ***most*** common: this means the survey does not establish a full analysis of the occupations in which under-utilisation occurs and that it is difficult to establish a profile of under-utilisation which stands up against the survey's other occupational metrics.

4.5 Reasons for under-utilisation

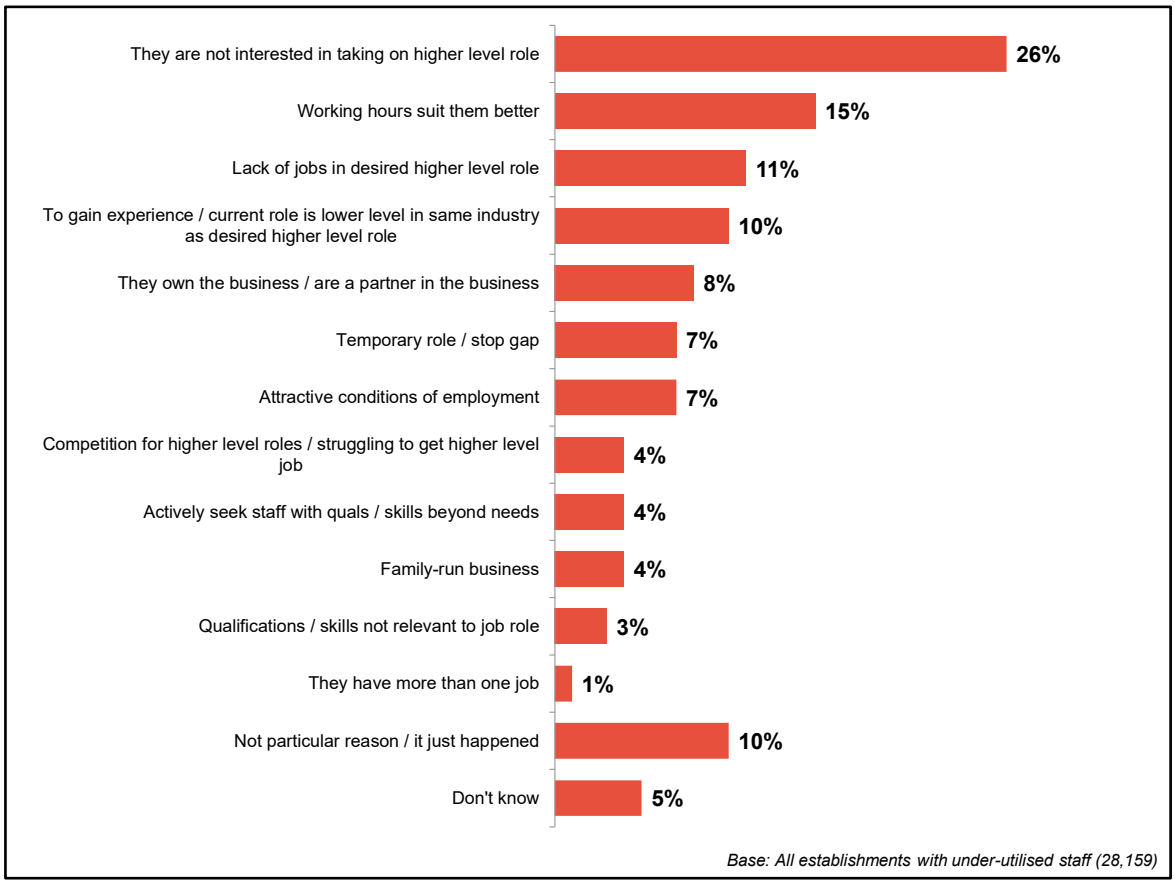
After employers had identified the occupations in which under-utilisation most commonly occurred in their establishment, they were then asked why they felt that it occurred among these staff. As shown in Figure 4.2, the most common cause of under-utilisation, as perceived by the employer, was a lack of interest among staff to take on a higher level role with more responsibility; more than a quarter of establishments where under-utilisation occurred cited this reason (26 per cent) [27].

4.6 Reasons for under-utilisation

After employers had identified the occupations in which under-utilisation most commonly occurred in their establishment, they were then asked why they felt that it occurred among these staff. As shown in Figure 4.2, the most common cause of under-utilisation, as perceived by the employer, was a lack of interest among staff to take on a higher level role with more responsibility; more than a quarter of establishments where under-utilisation occurred cited this reason (26 per cent) [28].

[27] It is important to bear in mind throughout this section that all reasons provided are from the perspective of the employer.
[28] It is important to bear in mind throughout this section that all reasons provided are from the perspective of the employer.

Figure 4.2 Reasons for under-utilisation (unprompted)



In similar vein, this was followed by the rationale that working hours were better suited to the individual in question in the roles that the under-utilised staff were currently occupying (15 per cent). This opens up the question as to whether – if employers redesigned job roles, and/or adapted the conditions of employment in other ways – there could be opportunities for them to better utilise the skills and qualifications that are already available to them within their organisation.

Similar proportions of employers – around one in ten – felt under-utilisation occurred due to either a lack of jobs in desired higher level roles or staff needing to gain experience in their desired industry before progressing to such roles (11 per cent and 10 per cent, respectively). These factors are arguably closely related, driven (or at least enhanced) by a demand deficiency for the skills and/or qualifications held by these staff. This may be a structural issue reflecting an over-supply of suitably skilled people looking for a particular type of role; or it may be more transient in nature, reflecting a lag between people acquiring skills and being able to utilise them, or receiving recognition for them (for example, through promotion).

Key findings of how different types of under-utilisation relate to the different occupations are shown in Table 4.1 (for full breakdown see Table A.4.2 in Annex A).

Employers perceived a lack of interest from staff in taking on higher roles to be the main reason for under-utilisation across the majority of occupations, and most prominently in relation to Caring, Leisure and Other Services staff (33 per cent). Bucking this trend were Administrative and Clerical staff, and Elementary staff; the former were most commonly deemed to be occupying roles in which they are under-utilised due to more suitable working hours (26 per cent), the latter because the role is temporary or a stop gap position (21 per cent). Sales and Customer Services staff were also more likely to be reported as under-utilised due to the temporary nature of their current role (20 per cent).

Table 4.1 Reasons for under-utilisation by occupation

Occupation	Main reasons for under-utilisation	(Other) Variations from the average
Managers	1. Not interested in taking on higher level role (27%) 2. They own the business / are a partner (16%) 3. The working hours suit them better (11%)	
Professionals	1. Not interested in taking on higher level role (27%) 2. To gain experience / current role is lower level in same industry as desired higher level role (14%) 3. The working hours suit them better (11%)	They own the business / are a partner (8%): significantly higher proportion than all other occupations bar Managers
Associate Professionals	1. Not interested in taking on higher level role (28%) 2. To gain experience / current role is lower level in same industry as desired higher level role (13%) 3. Lack of jobs in desired higher level role (11%)	
Administrative / Clerical staff	1. The working hours suit them better (26%) 2. Not interested in taking on higher level role (23%) 3. Lack of jobs in desired higher level role (12%)	Family run business most commonly reported for this occupation (6%)
Skilled Trades occupations	1. Not interested in taking on higher level role (28%) 2. The working hours suit them better (10%)	Family run business most commonly reported for this occupation (6%)
Caring, Leisure and Other Services	1. Not interested in taking on higher level role (33%) 2. The working hours suit them better (18%) 3. To gain experience / current role is lower level in same industry as desired higher level role (18%)	
Sales and Customer Services	1. Current role is temporary / stop gap (20%) 2. Not interested in taking on higher level role (20%) 3. Lack of jobs in desired higher level role (19%) 4. The working hours suit them better (19%)	Competition for higher levels roles most commonly reported for this occupation (7%)
Machine Operatives	1. Not interested in taking on higher level role (30%) 2. Lack of jobs in the desired higher level role (15%) 3. The working hours suit them better (14%)	Actively seeking staff with qualifications above those needed for role most commonly reported for this occupation (7%)
Elementary staff	1. Current role is temporary / stop gap (21%) 2. The working hours suit them better (19%) 3. Lack of jobs in desired higher level role (17%) 4. Not interested in taking on higher level role (17%)	They have more than one job most commonly reported for this occupation (3%)

4.7 Under-utilisation by country

Staff not being interested in taking on a higher level role with more responsibility was considered the main reason for under-utilisation across all countries. The likelihood of citing this rationale was significantly higher in Scotland, however (28 per cent compared to 26 per cent average). Under-utilisation due to the temporary nature of current job roles held was also more common within Scotland compared to other countries (eight per cent compared to seven, six and four per cent in England, Wales and Northern Ireland, respectively).

Employers in Wales were the least likely to state that there was a lack of interest for higher level roles (22 per cent compared to 26 per cent average), and were comparatively more likely than all other countries to report under-utilisation due to competition for higher level roles (five per cent compared to four per cent in other countries). Employers in Wales were also more likely to comment on the more attractive conditions of employment (nine per cent) and the family-run nature of businesses (seven per cent).

A lack of jobs in the desired higher level roles was considered a far greater issue and driver of under-utilisation in Northern Ireland compared to other countries (21 per cent compared to an average of 11 per cent). If we consider this to represent a demand deficiency (or over-supply) for more advanced skills and qualifications, this may complement previously outlined patterns found for key challenges such as skill-shortage vacancies and skills gaps, where the proportions reported are consistently lowest in Northern Ireland. This is likely to reflect the more limited employment market in Northern Ireland compared to the rest of the UK, which restricts the opportunities available to people as they achieve the skills and qualifications that might elsewhere lead them to move into new job roles.

At the other end of the spectrum, employers in England were significantly less likely than all others to feel that under-utilisation was driven by a lack of availability among desired higher level roles (10 per cent).

A full breakdown of perceived reasons for under-utilisation by country can be found in Table A.4.3 in Annex A.

4.8 Under-utilisation by establishment size

In terms of establishment size, a lack of interest in higher level roles was considered to be the main reason for under-utilisation by all except the largest employers (250+ employees; 18 per cent compared to 26 per cent on average).

These larger establishments were much more likely to see the challenge from the opposite perspective, that there was a shortage of jobs in desired higher level roles; around a quarter of employers with 100 or more employees attributed under-use of staff to this. The likelihood of citing this as a reason for under-use of staff skills and qualifications decreased steadily through the lower size bands, to just eight per cent for those with 2 to 4 employees.

Relatedly, larger establishments were also more likely to report competition for higher level roles as a reason for under-utilisation (eight per cent for 100+ establishments compared to four per cent average).

Taken together, this could indicate that **some** larger establishments are either unable or unwilling to move employees up the chain, or to create an environment which allows for progression for those who warrant it. From an individual perspective, therefore, the solution is likely to lie in movements between organisations / employers, as opposed to within.

Smaller establishments, particularly those with 2 to 4 employees, were more likely than others to report under-utilisation as being due to staff being the owners / partners in a business (13 per cent), and the business being family run (six per cent). This is somewhat unsurprising, given that micro-organisations are more likely to hold these organisational characteristics.

A full breakdown of perceived reasons for under-utilisation by establishment size can be found in Table A.4.4 in Annex A.

4.9 Under-utilisation by sector

A lack of interest in higher level roles was the most commonly perceived reason for under-utilisation across all sectors, although it was most prominent in relation to staff in the Health and Social Work (35 per cent), Arts, Entertainment, Recreation and Other Services (33 per cent), Education (30 per cent), and Public Administration sectors (29 per cent). These are all sectors in which the workforce tends to be more dominated by women[29], adding credence to the notion that it is predominantly women who make a decision to remain into under-utilised roles due to gender imbalances in the management of family and childcare.

Key reasons and other variations by sector shown in Table 4.2 (a full breakdown is provided in Table A.4.5 in Annex A).

[29] ONS Annual Population Survey (from Nomis 2015) - Females account for 70 per cent of employment within the Public Administration, Education and Health sectors (SIC O-P) and 53 per cent of employment within Other Services (SIC R-U).

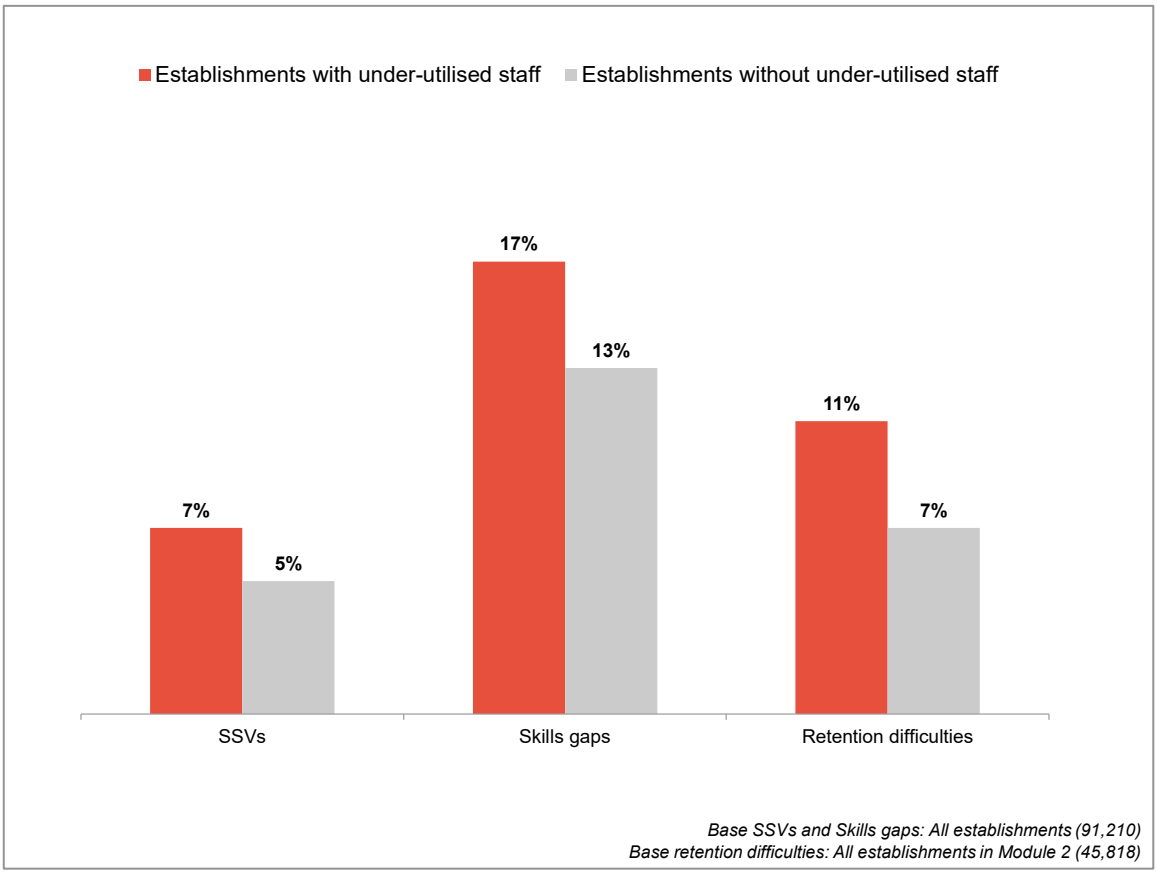
Table 4.2 Reasons for under-utilisation by sector

Occupation	Main reasons for under-utilisation	(Other) Variations from the average
Agriculture	1. Not interested in taking on higher level role (26%) 2. Family run business (21%) 3. The working hours suit them better (11%)	Least likely to have a lack of jobs in desired higher level roles (4%)
Manufacturing	1. Not interested in taking on higher level role (22%) 2. The working hours suit them better (13%) 3. Lack of jobs in desired higher level role (12%) 4. They own the business / are a partner (12%)	
Electricity, Gas and Water	1. Not interested in taking on higher level role (22%) 2. Lack of jobs in the desired higher level roles (14%) 3. They own the business / are a partner (12%)	Actively seeking over-qualified and –skilled staff is most common in this sector (10%)
Construction	1. Not interested in taking on higher level role (22%) 2. They own the business / are a partner (17%) 3. The working hours suit them better (12%)	Family run business more commonly reported than average in this sector (7%)
Wholesale and Retail	1. Not interested in taking on higher level role (24%) 2. The working hours suit them better (16%) 3. Lack of jobs in desired higher level role (14%)	Current role is temporary / stop gap more commonly reported than average in this occupation (10%)
Hotels and Restaurants	1. Not interested in taking on higher level role (22%) 2. The working hours suit them better (17%) 3. Current role is temporary / stop gap (17%)	Lack of jobs in desired higher level role more commonly reported than average (14%)
Transport, Storage and Comms	1. Not interested in taking on higher level role (24%) 2. The working hours suit them better (12%) 3. They own the business / are a partner (12%)	
Financial Services	1. Not interested in taking on higher level role (21%) 2. The working hours suit them better (14%) 3. To gain experience / current role is lower level in same industry as desired higher level role (13%)	
Business Services	1. Not interested in taking on higher level role (24%) 2. The working hours suit them better (13%) 3. They own the business / are a partner (11%)	
Public Administration	1. Not interested in taking on higher level role (29%) 2. The working hours suit them better (20%) 3. Lack of jobs in desired higher level role (20%)	
Education	1. Not interested in taking on higher level role (30%) 2. The working hours suit them better (24%) 3. To gain experience / current role is lower level in same industry as desired higher level role (18%)	
Health and Social Work	1. Not interested in taking on higher level role (35%) 2. The working hours suit them better (16%) 3. To gain experience / current role is lower level in same industry as desired higher level role (13%)	
Arts and Other services	1. Not interested in taking on higher level role (33%) 2. The working hours suit them better (17%) 3. To gain experience / current role is lower level in same industry as desired higher level role (11%)	

Under-utilisation and other challenges

As shown in Figure 4.3, establishments with under-utilised staff are more likely than those without to have skills gaps and to experience retention difficulties; they are also slightly more likely to experience skill-shortage vacancies.

Figure 4.3 Relationships between under-utilisation and other challenges



For skills gaps, the difference is most marked where the perceived reason for under-utilisation is a lack of jobs in desired higher level roles: employers that cite this reason are far more likely to have skills gaps (16 per cent compared to 10 per cent who do not have skills gaps). This highlights a possible inefficiency in the job market; employers that are experiencing skills gaps could consider re-structuring to create positions were all staff and skills are fully deployed.

The higher levels of retention difficulties among establishments with under-utilisation could indicate that staff are leaving organisations where they feel they are not able to fully deploy their skills.

4.10 Conclusions

This chapter has analysed a set of questions which are new to the Employer Skills Survey series and which describe a different order of skills challenge: that where employers report that their employees have skills and qualifications that are in excess of those that they need to perform in their job role.

Where this sort of misalignment occurs, it may speak to a need for employers to reorganise how they offer work to their employees, particularly where they are more likely to also experience skills gaps or staff retention problems.

In the next chapter we look at skills development, and employers' practices in terms of funding and arranging training to develop the skills of their workforce.

5 Training and workforce development

5.1 Chapter Summary

There was little change in the headline training measures between 2015 and the 2013 survey.

It remained the case that **two-thirds of employers (66 per cent) had funded or arranged training or development for their staff over the previous 12 months**, with around half providing any off-the-job training (49 per cent) or on-the-job training (53 per cent). The proportion of staff being trained in 2015 was also in line with 2013 (63 per cent compared to 62 per cent) as was the average number of days training per trainee over the period (6.8 days, compared to 6.7 days in 2013). Similarly, the proportion of employers that had provided any training intended to lead to nationally recognised qualifications remained unchanged at 31 per cent.

There was, however, **an increase in the volume of training, measured in terms of the total number of training days provided in the previous 12 months**. This rose to 118m days in 2015, compared to 113m in 2013 and 115m in 2011.

This increase in the volume of training largely reflected a combination of increased levels of employment and increased recruitment activity.

While the proportion of the workforce receiving training and the average number of training days they each received remained unchanged between 2013 and 2015, the size of the workforce increased, meaning that **there was a four per cent increase in the number of employees trained** (from 16.8m to 17.4m).

The increase in training days may be related to increased recruitment activity, and a consequent increase in induction training. The proportion of training employers that provided any induction training rose considerably (from 58 per cent of employers that trained in 2013 to 68 per cent in 2015), as did the proportion of training employers for whom induction or health and safety training accounted for at least half their training (from 27 per cent to 32 per cent).

Total employer expenditure on training increased by six per cent between 2013 and 2015, from £43.0bn to £45.4bn, more than reversing the decrease recorded between 2013 and 2011 (when the figure stood at £43.8bn). While total expenditure in 2015 was greater, investment per person trained and per employee remained similar in 2015 to 2013 and 2011.

Use of **online training or e-learning** and of other **self-learning** was common among training employers (45 per cent and 38 per cent respectively). These types of training were also generally increasing, particularly online training and e-learning (39 per cent of those using this method at all in the last two years reporting an increase over the last 12 months, compared with 18 per cent using it less).

Close to a half of employers that trained (46 per cent) wanted to provide more training than they had been able to do, with the main barriers being a lack of time and a lack of funds for further training. These reasons suggest that for some businesses, there is a ‘ceiling’ to the value they place on training, beyond which the training does not provide an adequate return to their investment, or at least is not perceived to.

5.2 Introduction

Training staff in the workplace is widely recognised as a key means to improving skills and productivity thereby maintaining and improving competitiveness and stimulating economic growth[30]. In Chapter 3, we saw that increasing training activity was the most common employer response to attempt to tackle skills gaps among their workforce. This chapter examines trends in employer training activity since 2011, looking at:

- Which employers funded or arranged training and development for their employees.
- How many and which employees they provided training for.
- The types and amount of training provided.
- Employer expenditure on training[31].
- Reasons for not providing training and barriers to providing more training.

Throughout the chapter the training or development provided by employers is discussed in terms of:

- **Off-the-job training or development**: training undertaken away from the individual's immediate work position, whether on the employer's premises or elsewhere.
- **On-the-job training and development**: activities that would be recognised as training by staff, and not the sort of learning by experience which could take place all the time.

[30] For example, the first line of the Government's The Future of Apprenticeships in England: Implementation Plan (HM Treasury, 2013a) describes Apprenticeship training as *'central to raising our nation's skills and delivering strong returns for the economy'*.

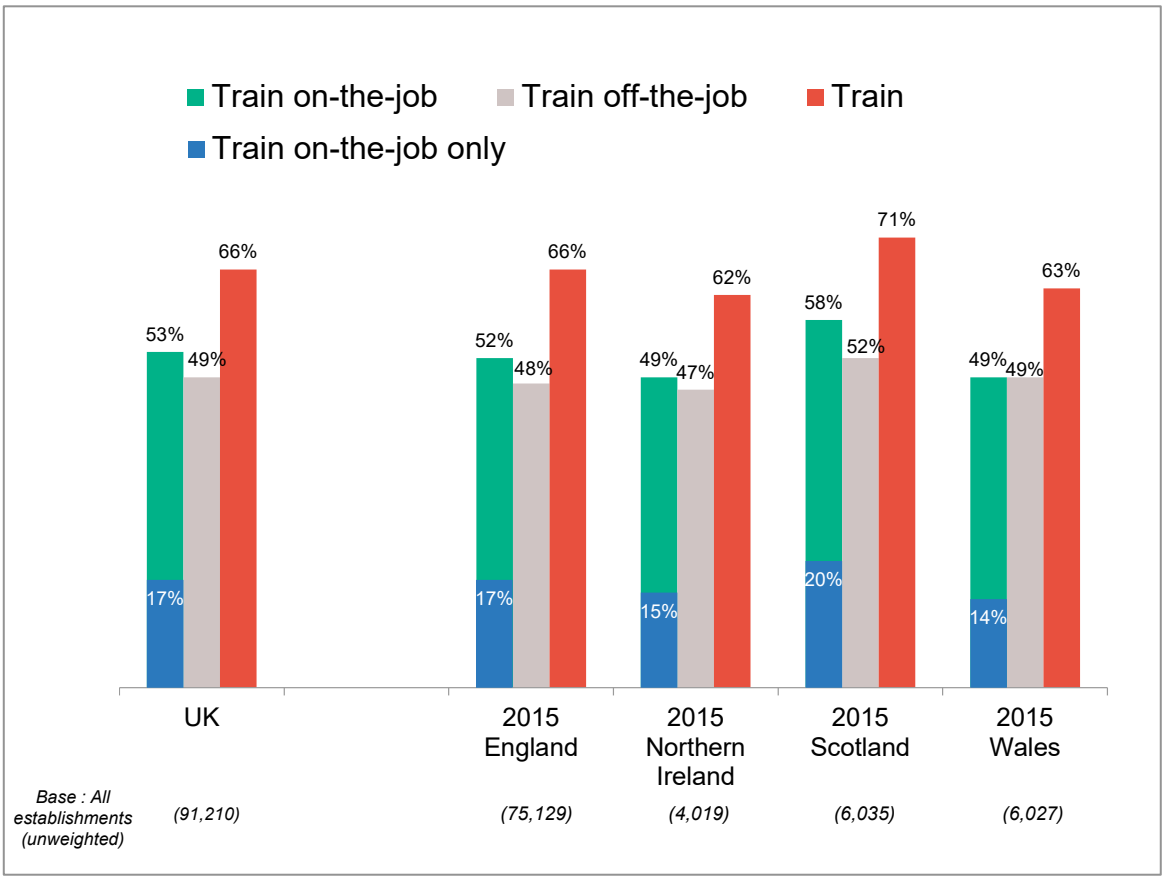
[31] Results for this aspect of the research are derived from the Investment in Training follow-up study with a proportion of the ESS 2015 sample (see the accompanying Technical Report for details of the methodology).

5.3 Incidence of training and workforce development

Two-thirds of employers (66 per cent) had arranged or funded any type of training (whether off- or on-the-job) for any of their staff in the previous 12 months. Similar proportions had provided off-the-job (49 per cent) as on-the-job training (53 per cent). Just over a third had provided both (35 per cent of all employers), as Figure 5.1 shows.

Around one in six employers (17 per cent) had provided only on-the-job training in the last 12 months. This was the same level as in 2013, though lower than in 2011 (19 per cent). Generally, however, the incidence of training changed very little in the 2011 to 2015 period.

Figure 5.1 Training provision over the last 12 months



Employers in Scotland were the most likely to have provided any training in the previous 12 months (71 per cent, compared with a range of 62 to 66 per cent in the other nations). While they were more likely to have provided either form of training than elsewhere in the UK, the difference was particularly marked in the delivery of on-the-job training.

Although the pattern of incidence of training by nation had changed little from 2013 and 2011, the proportion of employers in Wales providing any off-the-job training in 2015 increased to half (49 per cent), compared to 47 per cent in 2013 and 2011.

The likelihood of providing training increased with employer size. Among the smallest sites employing 2-4 staff, half had provided any training (51 per cent). This increased to over three-quarters (78 per cent) among those with 5 to 24 staff. Provision of any training was almost universal in larger establishments (93 per cent among those with 25-99 staff and 96 per cent among those with 100 or more employees).

Just over half of employers that trained (54 per cent) arranged a combination of *both* off- and on-the-job training in the last 12 months. Small establishments that trained were less likely to offer *both* forms of training than larger employers, with around two-fifths among those with 2-4 staff (42 per cent) doing so, rising to over four-fifths (83 per cent) among those with 100 or more employees.

As in 2013 and 2011, employers in Education, Public Administration, and Health and Social Work were the most likely to provide any training (93, 90 and 88 per cent respectively), and those in Agriculture the least likely (50 per cent). Employers providing training in Wholesale and Retail and in Hotels and Restaurants were more likely to provide *only* on-the-job training (each 36 per cent, compared against 26 per cent among all training employers).

More data on the incidence of training, and how this varied by country, size and sector, and between 2011 and 2015, can be found in Tables A.5.1 and A.5.2 in Annex A.

5.4 Number of staff trained

Employers had trained around 17.4m staff in the previous 12 months, a four per cent increase from 2013 (16.8m). This figure was equivalent to nearly two-thirds of the workforce[32] (63 per cent), a similar level to 2013 (62 per cent) but higher than 2011 (55 per cent).

Table 5.1 shows the number and proportion of staff trained by country and size for 2011, 2013 and 2015.

[32] The figure involves an element of over counting in that employers are asked about the number of staff they trained over the last 12 months whether or not they still work at the site. Hence someone who was trained at a site in the last 12 months but who left to join another employer who provided that person with training would be counted twice (if both employers were interviewed for the survey).

Table 5.1 Number and proportion of staff trained over the last 12 months, by country and establishment size

	2011		2013		2015	
	Number trained	% of staff trained	Number trained	% of staff trained	Number trained	% of staff trained
UK	14.7m	55	16.8m	62	17.4m	63
Country						
England	12.3m	54	14.1m	62	14.7m	63
Northern Ireland	0.4m	56	0.4m	59	0.5m	64
Scotland	1.4m	58	1.5m	65	1.5m	62
Wales	0.7m	56	0.7m	62	0.8m	64
Size						
2-4	1.0m	40	1.0m	41	1.0m	43
5 to 24	3.4m	53	3.5m	54	3.7m	56
25-49	2.0m	59	2.1m	63	2.3m	65
50-99	2.0m	59	2.3m	66	2.3m	66
100-249	2.4m	60	2.7m	68	2.9m	67
250+	4.0m	54	5.2m	71	5.2m	70

Base: All establishments. Base sizes are shown in Table A.5.3 in Annex A.

Percentages are based on all employment rather than all establishments, figures therefore show the proportion of all staff within each subgroup trained over the last 12 months.

By country, the proportion of the workforce trained over the previous 12 months varied from 62 per cent in Scotland to 64 per cent in Wales and Northern Ireland. The figure in Scotland represented a fall compared to the 65 per cent recorded in 2013. By contrast there were increases in the proportion of the workforce trained in Wales (56 per cent in 2011, 62 per cent in 2013 and 64 per cent in 2015) and Northern Ireland (56 per cent in 2011, 59 per cent in 2013 and 64 per cent in 2015).

Large employers trained the highest proportion of their staff: 70 per cent of the workforce in establishments with 250 or more employees had received training in the previous 12 months, compared with 66 per cent of the workforce in establishments with 25–249 staff, and 43 per cent within establishments with fewer than five employees.

Compared with 2013 the proportion of staff trained by employers with less than 50 staff increased by two percentage points (with the same level of increase seen across those with 2-4, 5-24 and 25-49 staff). In contrast, the proportion of staff trained among those with 50 or more staff was largely unchanged.

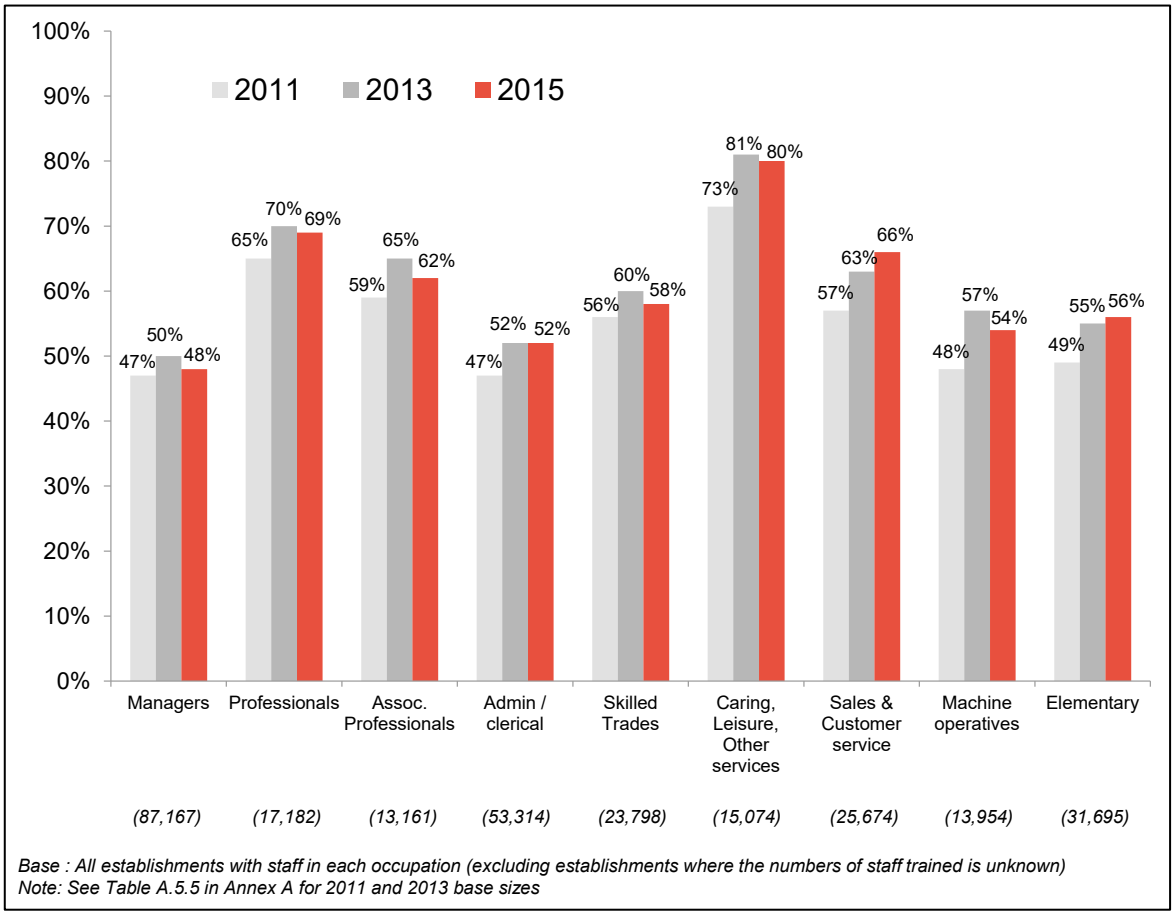
There were wide differences in the proportion of staff trained by sector. Employers in Health and Social Work, Education, and Public Administration trained the highest proportion of staff (78 per cent, 75 per cent and 74 per cent respectively), while employers in Agriculture trained the lowest (40 per cent).

The proportion of staff trained within each sector was broadly similar to 2013. The main differences were a fall in the proportion trained within the Electricity, Gas and Water sector (from 68 per cent in 2013 to 58 per cent in 2015), and increases in the proportion of the workforce trained over the previous 12 months in Public Administration (from 67 per cent to 74 per cent), Construction (from 48 per cent to 53 per cent) and Hotel and Restaurants (from 59 per cent to 64 per cent).

Results for the number and proportion of staff trained by sector, in 2015, 2013 and 2011, are provided in Table A.5.4 in Annex A.

By occupation, staff in Caring, Leisure and Other Services roles were the most likely to have received training (80 per cent), followed by Professionals and Sales and Customer Services staff (69 and 66 per cent respectively). Managers were least likely to have received training in the previous 12 months (48 per cent).

Figure 5.2 Proportion of staff trained over the last 12 months by occupation (2011 – 2015)



Base : All establishments with staff in each occupation (excluding establishments where the numbers of staff trained is unknown)
Note: See Table A.5.5 in Annex A for 2011 and 2013 base sizes

Percentages are based on all employment rather than all establishments, figures therefore show the proportion of all staff trained in each subgroup.

Note: the figures for the proportion of staff trained have been calculated excluding those respondents unsure of the exact number of people trained and who did not know the number trained by occupation.

5.5 Training days

The number of days training provided per employee over the previous 12 months varied widely between employers. One in nine (11 per cent) funded or arranged an average of one day or less per member of staff trained, while eight per cent provided an average of 20 days or more per member of staff trained.

Overall, across the UK as a whole, each person trained over the previous 12 months received on average 6.8 days of training, very similar to 2013 (6.7 days) but lower than in 2011 (7.8 days), when a lower number and proportion of staff were trained. The number of training days per person trained was lowest in Northern Ireland (5.6 days per annum) and highest in Wales (7.2 days), with England and Scotland close to the UK average (6.8 days and 6.7 days respectively).

It continued to be the case that larger establishments offered fewer days training per person trained. The average number of training days per person trained falls from 10.1 amongst those with fewer than five employees and 8.5 days among those with 5-24 staff, to less than 5 days amongst those with 250 or more employees.

Table 5.2 summarises results in 2011, 2013 and 2015 on training days by country and size.

Table 5.2 Total training and development days, and days per person trained and per employee by country and establishment size (2011 - 2015)

	2011			2013			2015		
	Total training days	Days per person trained	Days per employee	Total training days	Days per person trained	Days per employee	Total training days	Days per person trained	Days per employee
UK	115m	7.8	4.2	113m	6.7	4.2	118m	6.8	4.2
Country									
England	97m	7.9	4.3	95m	6.7	4.2	100m	6.8	4.3
Northern Ireland	3m	6.3	3.5	3m	6.3	3.7	3m	5.6	3.6
Scotland	10m	7.3	4.2	10m	6.7	4.3	10m	6.7	4.2
Wales	5m	7.5	4.2	6m	7.7	4.8	5m	7.2	4.6
Size									
2-4	10m	10.5	4.2	11m	10.7	4.4	10m	10.1	4.3
5-24	30m	9.0	4.7	29m	8.3	4.5	32m	8.5	4.7
25-49	17m	8.4	4.9	15m	7.3	4.6	17m	7.7	5.0
50-99	16m	8.1	4.8	15m	6.7	4.4	17m	7.5	5.0
100-249	16m	6.6	4.0	17m	6.3	4.3	16m	5.6	3.8
250+	25m	6.4	3.4	26m	5.0	3.5	25m	4.8	3.4

Base: All establishments that train (though 'days per employee' is based upon employment across all establishments). Base sizes are shown in Table A.5.6 in Annex A.

In 2015 there was an increase in the total number of training days provided in the UK over the previous 12 months (118m, up from 113m in 2013). This was largely driven by an increase in the number of training days reported by employers in England. Table A.5.7 in Annex A provides detailed findings on the training days provided by country, size and sector of employer.

Across the whole workforce, the total number of days training provided in the previous 12 months was equivalent to 4.2 days training per employee, the same figure as in 2013 and 2011. The figure was highest for employees in establishments with 25-99 staff (5.0 days per employee) and lowest for those in establishments with 100 or more employees (3.5 days). Mid-size employers with 25-99 staff appeared to be particularly important for developing the skills of the UK's workforce: although they employed 25 per cent of the workforce, mid-sized employers accounted for 29 per cent of the total training days provided by employers to staff.

Some of the sector level trends seen in 2013 continued in 2015. The number of days training provided to each person trained continued to be highest in the Hotels and Restaurants sector (an average of 10.5 days). This, alongside the aforementioned increase in the proportion of staff trained in the sector, led to an increase in total training days provided by the sector from 10 million to 13 million.

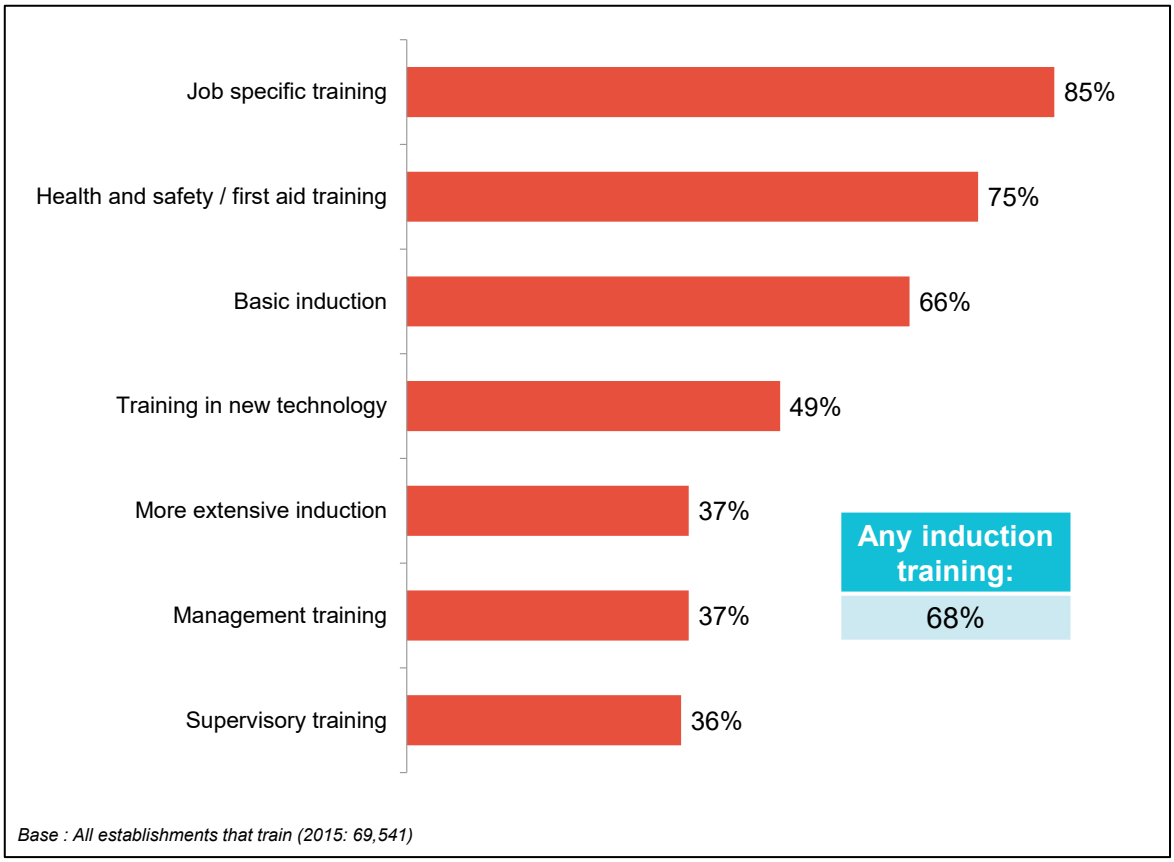
In Public Administration, while the proportion of the workforce trained increased (from 61 per cent in 2011 and 67 per cent in 2013 to 74 per cent in 2015), the average number of days training provided per person trained continued to fall sharply (from 9.9 days in 2011 to 7.7 days in 2013 to 5.2 days in 2015). Coupled with falling employment in the sector this meant the total number of training days provided in this sector also continued to fall (from 9m in 2011 and 7m in 2013 to 5m in 2015). Conversely, in Health and Social Work the total number of training days provided continued to increase (18m in 2011, 19m in 2013 and 21m in 2015).

Results by sector for the total number of training and development days, and days per person trained and per employee for 2015, 2013 and 2011 can be found in Table A.5.8 in Annex A.

5.6 Types of training provided

The most common type of training provided was job-specific, aimed at developing the skills of a particular occupation or job role (provided by 85 per cent of employers that trained). A majority of training employers had also funded or arranged health and safety / first aid training (75 per cent) and basic induction training for new staff (66 per cent). Results are shown in Figure 5.3.

Figure 5.3 Types of training provided over the last 12 months by employers that train (prompted)



Base : All establishments that train (2015: 69,541)

The proportion of training employers delivering each type of training was similar to 2013, though there were small increases (of two percentage points in each case) in the proportions providing management training (37 per cent) and supervisory training (36 per cent).

While asked as a single item in 2013, in 2015 'induction training' was split into '*basic* induction training' and '*more extensive* induction training'; therefore, caution should be used when comparing the results with previous years. However, there was an increase in *any* induction training (68 per cent, up from 58 per cent in 2013). Many more employers had provided basic than more extensive induction training (66 and 37 per cent of training employers respectively).

The increase in induction training is likely to reflect the substantial increase in recruitment activity reported in Chapter 2. Among employers that provided training and had recruited within the last 12 months, the majority (88 per cent) had provided some form of induction training, compared with a third (34 per cent) of training employers that had not recruited[33].

Induction training and health and safety / first aid training is often undertaken because it is a legislative requirement (rather than to develop the skills of the workforce). The UK Employer Skills Survey series has therefore asked employers what proportion of their training over the previous 12 months involved these types of training.

For a third of employers that trained (32 per cent), induction or health and safety training accounted for *at least half* of their training. This was an increase on 2013 (27 per cent) and 2011 (29 per cent). Similarly, the proportion of employers saying *all* their training in the last 12 months was induction or health and safety training increased (from seven per cent in 2011, to nine per cent in 2013 to 11 per cent in 2015).

Employers in Northern Ireland were more likely than elsewhere in the UK to say induction or health and safety training accounted for *all* their training (18 per cent) or *at least half* of their training (39 per cent).

By sector, training employers in Hotels and Restaurants and in Construction were the most likely to say *all* their training in the last 12 months had been induction or health and safety training (each 17 per cent).

A detailed breakdown of the proportion of training that was health and safety or induction in 2015 by country, and at UK level for 2011 and 2013, is provided in Table A.5.9 in Annex A.

Among employers that trained, larger employers (with 25 or more employees) were more likely to have provided each of the types of training listed in Figure 5.3 in the previous 12 months, with this particularly the case for basic induction, management and supervisory training (92, 66 and 62 per cent respectively; among those with fewer than five staff the comparative figures were 46, 24 and 24 per cent).

Management training was most common among Education employers that trained (58 per cent), while supervisory training was particularly common among training employers in Hotels and Restaurants (51 per cent); Agriculture employers that provided training were the least likely to offer each of these types of training (14 per cent and 16 per cent respectively).

[33] Induction training provided by employers that had not recruited in the previous 12 months may cover induction training for those recruited more than 12 months ago, or for internal transfers or promotions.

Over three-fifths of training employers within Transport and Communications (65 per cent) and Public Administration (61 per cent) had provided training in new technology. Those in the Hotels and Restaurants sector were least likely to have provided this type of training (34 per cent).

More details of types of training provided by sector, as well as by country and establishment size, are provided in Table A.5.10 in Annex A.

5.7 Training to qualifications

In addition to measuring the quantity and specific type of training provided, the survey also sought to provide other means of assessing its quality, namely by examining the extent to which training was designed to lead to nationally recognised qualifications.

Just under half of employers that trained over the last 12 months had funded or arranged any training that was intended to lead to a nationally recognised qualification (47 per cent, equivalent to 31 per cent of all employers). More than half (57 per cent) of those training to nationally recognised qualifications had done so to level 3 or above (equivalent to 27 per cent of establishments that had trained, and 18 per cent of all employers). This mirrors findings from 2013, as shown in Table 5.3.

Employers reported that 3.5m staff were trained towards a nationally recognised qualification over the previous 12 months. Again this was broadly similar to the numbers in 2013 (3.6m) and 2011 (3.3m). This means that a fifth (20 per cent) of staff who were trained in the previous 12 months had received training that was intended to lead to a nationally recognised qualification, slightly lower than in 2011 (22 per cent) and 2013 (21 per cent). This was equivalent to 12 per cent of all employees being trained to a nationally recognised qualification over the previous 12 months.

Table 5.3 Training to nationally recognised qualifications over the previous 12 months

	2011	2013	2015	2015				
	All employers:			Employers that train:				
	UK	UK	UK	UK	England	Northern Ireland	Scotland	Wales
	%	%	%	%	%	%	%	%
Trained any staff to a qualification	30	31	31	47	47	43	44	54
Trained any to: Level 1	6	6	6	9	8	6	10	12
Level 2	10	11	11	17	18	12	11	20
Level 3	11	12	12	18	18	14	13	20
Level 4 or above	8	10	9	14	14	16	13	18
Number trained to a qualification	3.3m	3.6m	3.5m	3.5m	3.0m	0.1m	0.3m	0.2m
Of staff trained, the % trained to a qualification over the last 12 months	22	21	20	20	20	15	18	21
Of all employees, % trained to a qualification over the last 12 months	12	13	12	12	13	10	11	13

Base: Columns 1-3 'All establishments', columns 4 to 8 'Establishments that train'; Base sizes are shown in Tables A.5.3 and A.5.6 in Annex A.

Note: the row 'number trained to a qualification' shows how many individuals were undertaking training leading to nationally recognised qualifications in the 12 months prior to interview, not how many staff had achieved these qualifications.

Note also in the final row the base for the number of employees is all employers not just employers that train.

In line with 2013 and 2011, the proportion of employers training to nationally recognised qualifications was below the UK average in Northern Ireland and Scotland, and above average in Wales.

In the previous 12 months, 13 per cent of all employees in Wales and 10 per cent of all employees in Northern Ireland had been trained to a nationally recognised qualification (the lowest of the four nations). While this proportion was unchanged in Northern Ireland since 2013, the proportion trained to a nationally recognised qualification in Wales in the last 12 months was five percentage points lower.

Table A.5.11 in Annex A details the incidence and extent of provision of training leading to qualifications by size and sector. This shows that the proportion of employees trained to a qualification was highest in mid-size establishments with between five and 99 employees, with a peak in the 25-49 group. While employers with 5-99 staff employed just under half (49 per cent) of the total UK workforce, they employed more than half (56 per cent) of all UK workers who were trained to a qualification in the previous 12 months.

Employers in sectors that trained the most were also the most likely to have offered training leading to a qualification: Health and Social Work (65 per cent), Education (65 per cent) and Public Administration (62 per cent). Health and Social Work employers also offered training leading to a qualification to a higher *proportion* of their workforce than in any other sector (23 per cent). Education employers on the other hand were below the UK average in terms of the proportion of their workforce offered training leading to a qualification (10 per cent, compared to the UK average of 12 per cent).

5.8 Online / e-learning and other self-learning

The 2013 study reported reduced employer expenditure on training compared with 2011. This and other findings supported theories, suggested for example in '*Training in Recession: The impact of the 2008-2009 recession on training at work'* (Felstead *et al.,* 2013), that the recession had led to employers 'training smarter' with increased emphasis on in-house training, training employees to train others, reduced use of external providers and enhanced use of e-learning.

To explore this issue, new questions were added in 2015 asking employers if they had arranged or funded any training in the last 12 months using either online training or e-learning, or any other self-learning where the employee does the learning at a time of their own choosing. They were also asked if their use of these training approaches over the last 12 months had increased or decreased compared with the 12 months before that.

Just under half (45 per cent) of employers that provided training had used online training or e-learning in the previous 12 months[34]. Use of this type of training was less common in Wales (43 per cent) and particularly low in Northern Ireland (34 per cent), as Table 5.4 shows.

Likelihood of providing online training or e-learning increased with size, rising from a third of training establishments with 2 to 4 employees (35 per cent) to over three-quarters of establishments with 250 or more employees (78 per cent).

[34] This might include training that is completely online, or that had a significant online element

Table 5.4 Provision of online training or e-learning over the past 12 months by country and establishment size

	Unwtd Base	**Used online training in last 12 months**	*Unwtd Base*	**Online training increased**	**Online training decreased**
		%		%	%
UK	*69,541*	45	*39,695*	39	18
Country					
England	*57,422*	45	*33,257*	39	18
Northern Ireland	*2,869*	34	*1,268*	38	22
Scotland	*4,894*	44	*2,805*	40	17
Wales	*4,356*	43	*2,365*	40	19
Size					
2-4	*10,317*	35	*4,212*	35	22
5 to 24	*39,461*	47	*21,708*	40	17
25-49	*10,742*	61	*7,195*	43	13
50-99	*5,547*	62	*3,892*	41	14
100-249	*2,584*	70	*1,965*	42	12
250+	*890*	78	*723*	44	9

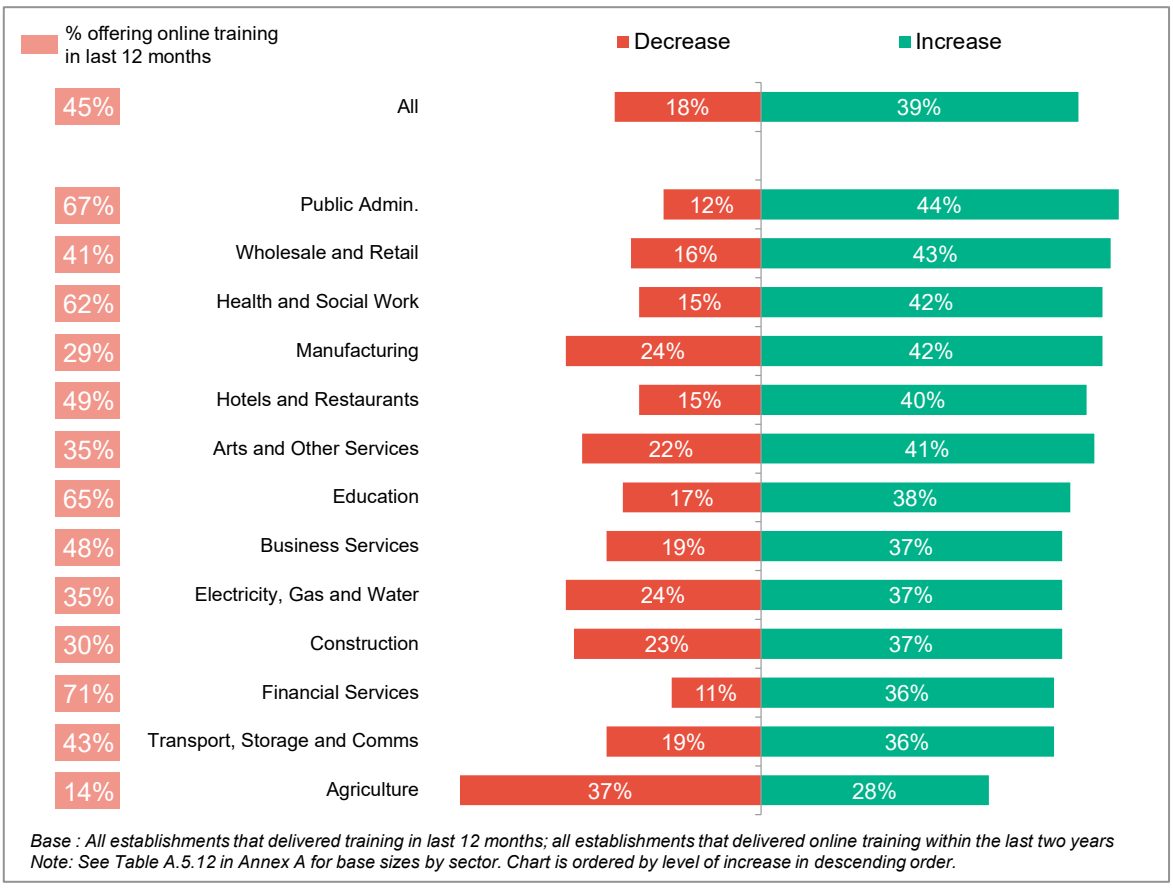
Base: All establishments that provided training / all establishments that have provided any online training or e-learning in the last two years

On balance, the use of online training or e-learning appears to have been increasing over the last two years. Two-fifths (39 per cent) indicated its use had increased in the previous 12 months compared with the 12 months before that, compared with just under one-fifth (18 per cent) that reported using less online training or e-learning.

The smallest establishments with 2 to 4 employees that had offered online training were the most likely to say its use had decreased (22 per cent, exactly twice the level found among those with 100 or more employees).

Use of online or e-learning varied widely by sector, and was particularly high in Financial Services, Public Administration, Education and Health and Social Work. Employers that had offered online training within the last two years were most likely to say its recent use had increased if they worked in Public Administration (44 per cent), Wholesale and Retail (43 per cent), Manufacturing (42 per cent) and Health and Social Work (42 per cent). Figure 5.4 shows results by sector.

Figure 5.4 Use of online training and e-learning, and changes in use, by sector



Base : All establishments that delivered training in last 12 months; all establishments that delivered online training within the last two years
Note: See Table A.5.12 in Annex A for base sizes by sector. Chart is ordered by level of increase in descending order.

Nearly two-fifths (38 per cent) of employers that trained in the previous 12 months said they had provided other self-learning (i.e. besides online or e-learning) where the employee did the training at a time of their own choosing[35].

Provision of self-learning varied little by country as shown in Table 5.5 overleaf.

Larger training employers were more likely to have offered other self-learning: nearly two-thirds (62 per cent) of those with 100 or more employees had done so, compared with just under a third (32 per cent) of those with 2 to 4 employees.

[35] The questionnaire did not specify whether this time was within or outside of the employee's contracted work hours

Table 5.5 Provision of other self-learning over the previous 12 months by country and establishment size

	Unwtd Base	**Used other self-learning in last 12 months** %	*Unwtd Base*	**Other self-learning increased** %	**Other self-learning decreased** %
UK	*69,541*	38	*35,783*	29	23
Country					
England	*57,422*	39	*29,864*	30	23
Northern Ireland	*2,869*	35	*1,324*	24	27
Scotland	*4,894*	36	*2,449*	29	25
Wales	*4,356*	37	*2,146*	30	24
Size					
2-4	*10,317*	32	*4,127*	28	26
5 to 24	*39,461*	39	*19,022*	29	23
25-49	*10,742*	51	*6,458*	34	20
50-99	*5,547*	56	*3,660*	32	19
100-249	*2,584*	60	*1,836*	31	19
250+	*890*	65	*680*	29	18

Base: All establishments that provided training / all establishments that have provided any other (non-online training or e-learning) self-learning in the last two years

Following a similar pattern to online training, training employers in Public Administration, Education, Health and Social Work (each 55 per cent) and Financial Services (54 per cent) were the most likely to have provided other self-learning for their employees. Employers in Agriculture were the least likely to have provided other self-learning (20 per cent), and self-learning was less common among employers that trained in the Manufacturing, Electricity, Gas and Water, and Construction sectors (24, 27, and 25 per cent respectively).

Among employers that had offered any other self-learning in the past two years, slightly more (29 per cent) said its use had increased in the last 12 months than said its use had decreased (23 per cent). Use of other self-learning was most likely to have increased among employers with 25 staff or more (33 per cent, though still 19 per cent of employers of this size said its use had decreased).

More than half (57 per cent) of all employers that trained had provided *either* online training / e-learning or other self-learning where the employee did the learning at a time of their own choosing. Patterns by nation, size and sector mirrored those seen among employers providing each of the individual training types.

Table A.5.12 in Annex A provides a detailed breakdown of figures on provision of online training or e-learning and other self-learning by country, size and sector.

5.9 Investment in Training

Employer expenditure on training and development over the previous 12 months was £45.4bn. As well as such elements as fees to external providers and expenditure on equipment or materials (which comprised a relatively small proportion of overall employer investment in training), a substantial proportion of this expenditure covered the wages of staff while being trained, and of staff delivering training. (How total training expenditure breaks down into the constituent parts is examined in Table 5.7 later in this chapter.)

The 2015 spend of £45.4bn was a six per cent increase on the £43.0bn spend in 2013, and a four per cent increase on the 2011 figure of £43.8bn[36].

Employers' total investment in training was equivalent to around £2,610 per person trained and £1,640 per employee. Although a slight increase on 2013, these figures were in line with 2011 (see Table 5.6). This is due to the fact that, although overall spend in 2015 was higher than in 2011, the numbers in employment and the number trained also both increased, as discussed earlier.

[36] It is worth noting that here, and throughout this chapter, training expenditure figures for 2011 and 2013 have not been adjusted for inflation. Additionally, In 2015 a new weighting strategy was implemented to further increase the accuracy of the training spend estimates; this new weighting strategy has also been retrospectively applied to both the 2011 and 2013 data files, meaning some of the figures reported here for 2011 and 2013 may differ slightly from the original reports. A full explanation of the new weighting strategy, the rationale behind it, as well as revised figures for training spend by country, are presented in a separate publication.

Table 5.6 Total training expenditure and spend per person trained and per employee (2011 to 2015)

	2011			2013			2015		
	Total	Spend per person trained	Spend per employee	Total	Spend per person trained	Spend per employee	Total	Spend per person trained	Spend per employee
	£	£	£	£	£	£	£	£	£
UK	43.8bn	3.0k	1.6k	43.0bn	2.6k	1.6k	45.4bn	2.6k	1.6
Size									
2-4	5.5bn	5.7k	2.3k	5.6bn	5.7k	2.3k	5.9bn	5.8k	2.5k
5-24	12.0bn	3.6k	1.9k	12.7bn	3.6k	2.0k	14.1bn	3.8k	2.1k
25-49	6.1bn	3.1k	1.8k	6.4bn	3.0k	1.9k	6.3bn	2.8k	1.8k
50-99	5.5bn	2.7k	1.6k	5.5bn	2.5k	1.6k	6.5bn	2.8k	1.9k
100+	14.7bn	2.3k	1.3k	12.7bn	1.6k	1.1k	12.7bn	1.6k	1.1k
Sector									
Agriculture	1.1bn	7.8k	3.0k	0.4bn	2.7k	1.1k	0.6bn	3.6k	1.4k
Manufacturing	3.4bn	3.0k	1.4k	2.6bn	2.2k	1.1k	3.2bn	2.6k	1.3k
Electricity, Gas & Water	0.3bn	1.9k	1.0k	0.3bn	1.5k	1.0k	0.7bn	4.0k	2.3k
Construction	2.5bn	3.6k	1.8k	2.4bn	4.1k	2.0k	2.5bn	4.1k	2.2k
Wholesale & Retail	5.1bn	2.2k	1.2k	6.5bn	2.6k	1.5k	5.1bn	2.1k	1.1k
Hotels & Restaurants	3.0bn	3.2k	1.7k	2.7bn	2.5k	1.5k	3.3bn	2.7k	1.7k
Transport and Comms	3.1bn	3.3k	1.5k	3.3bn	2.8k	1.5k	3.4bn	2.7k	1.5k
Financial Services	1.5bn	2.4k	1.4k	1.3bn	1.9k	1.3k	1.6bn	2.3k	1.7k
Business Services	8.3bn	3.7k	1.9k	8.5bn	3.2k	1.9k	9.8bn	3.4k	2.1k
Public Admin.	3.1bn	3.3k	2.0k	2.1bn	2.2k	1.5k	1.9bn	2.0k	1.4k
Education	4.9bn	3.0k	1.9k	5.4bn	2.8k	2.1k	4.6bn	2.3k	1.7k
Health & Social Work	5.2bn	2.3k	1.5k	5.1bn	1.8k	1.4k	6.1bn	2.1k	1.6k
Arts and other services	2.3bn	3.4k	1.9k	2.3bn	3.0k	1.9k	2.6bn	3.4k	2.1k

Base: Establishments completing the Investment in Training study (UK 2011: 11,027; 2013: 12,522; 2015: 12,614). Base sizes for size and sector can be found in Table A.5.13 in Annex A.

As in 2011 and 2013, training spend per person trained and per employee decreased with employer size, with smaller employers reporting higher spends. While the smallest employers with 2 to 4 staff provided approximately twice as many training days per person trained as those with 100 or more employees (10.1 days per annum compared with 5.1 days), they spent more than three and a half times as much per person trained per annum (£5,810 per person trained, compared with £1,570 among employers with 100 or more staff). This pattern is likely to reflect economies of scale for larger employers.

As shown in Table 5.6 the increase in total employer training expenditure from 2013 to 2015 was mainly a result of increases in expenditure among those with 5 to 24 staff, and those with 50-99 staff. In both cases expenditure was also higher than in 2011. Among the largest employers with 100 or more staff, overall training spend as well as spend per trainee and per employee remained at 2013 levels, below the levels reported in 2011.

Although overall training expenditure changed little from 2013 to 2015, there were quite considerable changes within certain sectors. As shown in Table 5.6 there have been quite large increases in total training expenditure within:

- Electricity, Gas and Water sector (expenditure in 2015 was more than double the 2013 level).
- Agriculture (an increase of 35 per cent).
- Hotels and Restaurants (a 25 per cent increase since 2013).
- Financial Services (a 24 per cent increase).
- Health and Social Work (a 19 per cent increase).
- Business Services (a 15 per cent increase).

Decreases in total training expenditure from 2013 to 2015 occurred within the following sectors:

- Wholesale and Retail (21 per cent fall, in contrast to the increase between 2011 and 2013).
- Education (16 per cent fall, continuing the trend from 2013).
- Public Administration (nine per cent fall, continuing the trend from 2013).

As shown in Table 5.7, the overall composition of training expenditure remained similar to 2013, with an even split between spend on off-the-job training versus on-the-job training.

The increase in total training expenditure was predominantly the result of higher expenditure on off-the-job training (from £21.3bn in 2013 to £22.9bn in 2015), and particularly spend on training management[37] (from £6.5bn in 2013 to £7.7bn in 2015). Fees to external providers for off-the-job training were slightly down, from £2.4bn in 2013 to £2.2bn.

[37] This involves the internal cost of providing, administering or making policy decisions about training off-the-job training.

There was also an increase in spend on on-the-job training (from £21.7bn in 2013 to £22.6bn in 2015), driven entirely by an increase in labour costs of those providing the training (from £7.7bn in 2013 to £8.7bn in 2015).

Table 5.7 Total training expenditure broken down by individual components (2011 to 2015)

	2011		2013		2015	
Unweighted Base:	*11,027*		*12,522*		*12,614*	
	£bn	%	£bn	%	£bn	%
Total training expenditure	**£43.8bn**	**100**	**£43.0bn**	**100**	**£45.4bn**	**100**
Off-the-job training: total	*£21.1bn*	48	*£21.3bn*	50	£22.9bn	50
Off-the-job training: Course-related: total	*£17.6bn*	40	*£17.9bn*	42	*£19.7bn*	43
Trainee labour costs	£4.7bn	11	£5.2bn	12	£5.4bn	12
Fees to external providers	£2.7bn	6	£2.4bn	6	£2.2bn	5
On-site training centre	£2.9bn	7	£2.7bn	6	£3.0bn	7
Off-site training centre (in the same company)	£0.6bn	1	£0.5bn	1	£0.7bn	2
Training management	£6.1bn	14	£6.5bn	15	£7.7bn	17
Non-training centre equipment and materials	£0.4bn	1	£0.4bn	1	£0.4bn	1
Travel and subsistence	£0.4bn	1	£0.4bn	1	£0.4bn	1
Levies minus grants	-£0.3bn	-1	-£0.2bn	-*	£-0.2bn	-*
Off-the-job training: other (seminars, workshops etc.): total	*£3.5bn*	8	*£3.4bn*	8	*£3.2bn*	7
Trainee labour costs	£2.5bn	6	£2.5bn	6	£2.3bn	5
Fees to external providers	£1.0bn	2	£0.9bn	2	£0.8bn	2
On-the-job training: Total	*£22.7bn*	52	*£21.7bn*	50	*£22.6bn*	50
Trainee labour costs	£14.2bn	32	£14.0bn	33	£13.9bn	31
Trainers' labour costs	£8.6bn	20	£7.7bn	18	£8.7bn	19

Base: Establishments completing the Investment in Training study

The wages of staff being trained (trainee labour costs) accounted for half (48 per cent) of all training expenditure (similar to the 50 per cent in 2013 and 49 per cent in 2011). The wages / salaries of those providing on-the-job training also accounted for around a fifth (19 per cent) of total training expenditure, in line with 2013 (18 per cent). In comparison relatively little was spent on payments to external training providers (seven per cent of total investment in training, similar to the eight per cent in both 2013 and 2011).

Table 5.8 summarises results on the breakdown of training expenditure by size and sector of establishment.

Table 5.8: Training expenditure by size and sector, the proportion spent on off-the-job elements, and the breakdown of total training expenditure (both on-the-job and off-the-job) by key elements

Row percentages	*Unwtd Base*	Expenditure on training	% spent on off-the-job training		Wages of trainees	Wages of trainers	Fees to external providers	Other
UK	*12,614*	£45.4bn	50	%	48	19	7	27
Size								
2-4	*1,963*	£5.9bn	60	%	35	19	9	38
5-24	*7,661*	£14.1bn	52	%	44	19	7	29
25-49	*1,779*	£6.3bn	50	%	48	19	7	25
50-99	*782*	£6.5bn	46	%	54	19	5	21
100+	*429*	£12.7bn	47	%	54	19	6	22
Sector								
Agriculture	*260*	£0.6bn	65	%	46	17	10	27
Manufacturing	*972*	£3.2bn	48	%	54	18	7	21
Electricity, Gas & Water	*168*	£0.7bn	64	%	50	8	6	36
Construction	*826*	£2.5bn	54	%	40	23	10	27
Wholesale & Retail	*1,813*	£5.1bn	45	%	45	23	7	26
Hotels & Restaurants	*1,273*	£3.3bn	36	%	55	21	3	20
Transport and Comms	*1,135*	£3.4bn	47	%	45	23	6	26
Financial Services	*344*	£1.6bn	40	%	48	27	4	21
Business Services	*2,073*	£9.8bn	51	%	46	20	10	24
Public Admin	*176*	£1.9bn	49	%	52	17	6	25
Education	*678*	£4.6bn	58	%	44	15	5	36
Health & Social Work	*1,790*	£6.1bn	53	%	54	14	5	27
Arts and Other Services	*1,106*	£2.6bn	60	%	43	16	5	36

Base: Establishments completing the Investment in Training study.

The column 'other' includes such items as expenditure on training centres and on training management.

As the size of establishment increased the proportion of total training expenditure spent on off-the-job training decreased, while the proportion of spend on the wages/salaries of people being trained increased.

The proportion of training expenditure spent on off-the-job training also varied widely by sector, as follows:

- It was higher than average in Agriculture (65 per cent), Electricity, Gas and Water (64 per cent), Arts, Entertainment, Recreation and Other Service activities (60 per cent), Education (58 per cent), Construction (54 per cent), and Health and Social Work (53 per cent).

- It was much lower than average in Hotels and Restaurants (36 per cent), Financial Services (40 per cent) and Wholesale and Retail (45 per cent).

There was also wide variation by sector in the proportion of total training expenditure accounted for by the wages/salaries of people being trained. This was highest in Hotels and Restaurants (55 per cent), Health and Social Work (54 per cent) and Manufacturing (54 per cent), and lowest in Construction (40 per cent) and Arts, Entertainment, Recreation and Other Service activities (43 per cent).

The proportion of total training expenditure spent on fees to external training providers varied relatively little by establishment size and sector, although it accounted for a slightly larger proportion among smaller employers (see Table 5.8).

Around £0.5bn was spent by employers in the previous 12 months on fees to FE colleges and HEIs, equivalent to 15 per cent of total fees to external providers. This represents a slight increase from 2013 in terms of both total expenditure and the proportion of fees to external providers this accounts for (in 2013 employers spent £0.4bn with FE colleges and HEIs, equivalent to 13 per cent of total fees to external providers). As in 2013, results differed relatively little by size. By sector, a higher than average proportion of fees to external providers was spent on FE colleges and HEIs by employers in Education (19 per cent), Health and Social Work (19 per cent), Agriculture (18 per cent), and Business Services (17 per cent).

Details of fees paid to FE colleges or to Universities or other Higher Education institutions for training is shown in Table A.5.14 in Annex A.

5.10 Barriers and limits on training

Approaching half of employers that had trained over the last 12 months would have liked to provide more training than they did (46 per cent, similar to the 47 per cent in 2013). This was higher among employers in Scotland and Wales (50 and 49 per cent respectively).

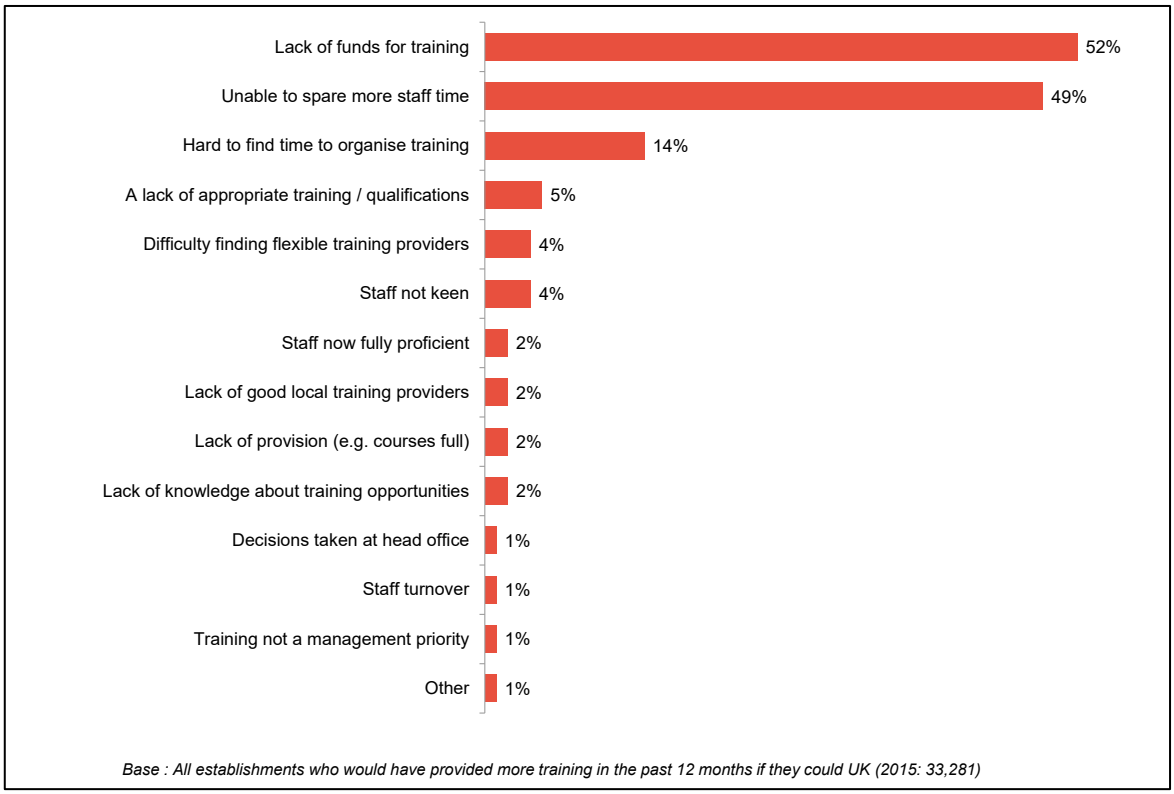
Larger training employers were more likely to have wanted to provide more training than they were able (58 per cent of those with 100 or more staff, compared with 43 per cent of those with fewer than five staff). This was the same pattern as in 2013.

As shown in Figure 5.5, the two most common reasons given by training employers for being unable to deliver their desired amount of training were:

- Not having the funds to do so (52 per cent, higher at 60 per cent among those in Northern Ireland). This was also the main reason in 2013 though more mentioned it then (60 per cent).

- Not being able to spare the time for staff to spend more time training (49 per cent, rising to 54 per cent among those in Scotland).

Figure 5.5 Barriers to providing more training

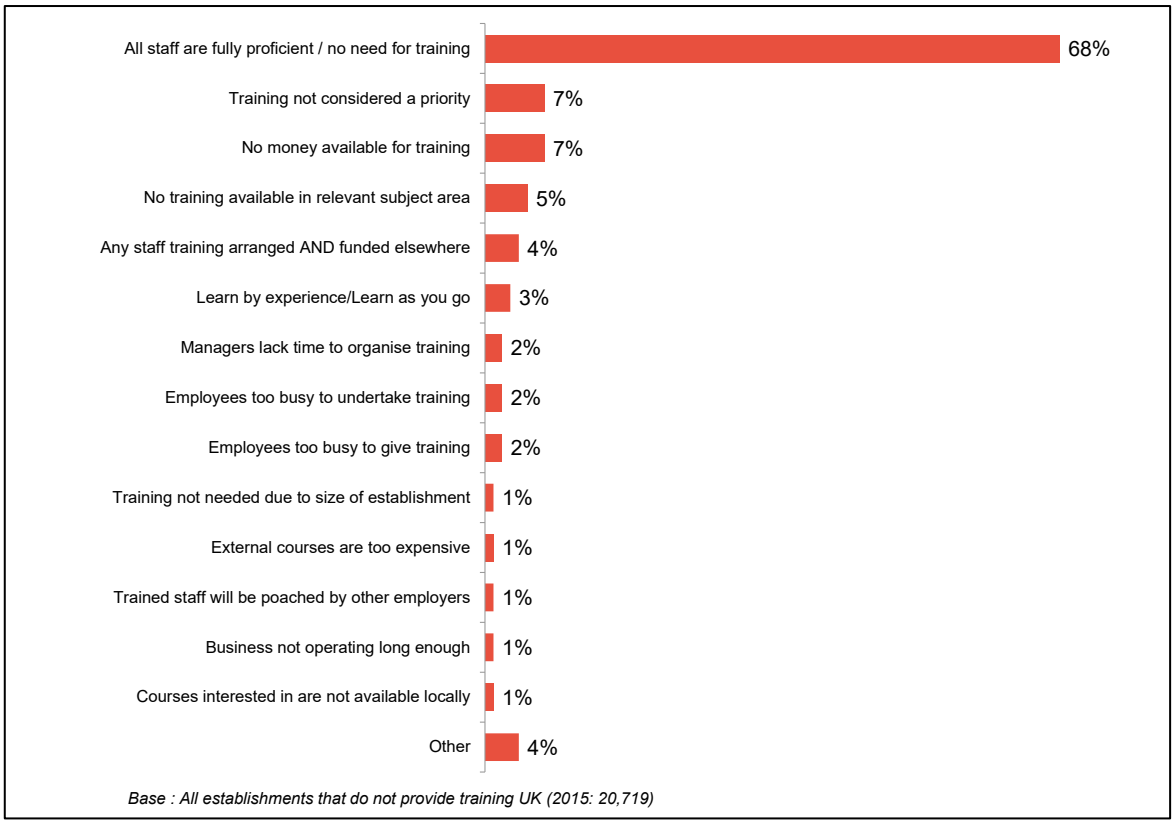


Base : All establishments who would have provided more training in the past 12 months if they could UK (2015: 33,281)

More data on the proportion of training employers that would have liked to provide more training over the previous 12 months, and the main barriers preventing them doing so, can be found in Table A.5.15 in Annex A.

Some employers chose not to provide any training or development for their staff in the previous 12 months. Figure 5.6 presents the reasons given by employers for not training over the previous 12 months.

Figure 5.6 Reasons for not providing training in the previous 12 months



By far the most common reason for employers not providing any training was feeling that they did not need to because all their staff were fully proficient (68 per cent). This reason was particularly common amongst small non-training employers (71 per cent of establishments with fewer than five staff) and employers in the Construction, Agriculture, Manufacturing, and Electricity, Gas and Water sectors (around three-quarters in each). Other reasons indicative of low demand (to the extent that training was clearly treated as a lower priority than more pressing day-to-day issues) included training not being a priority for the organisation (seven per cent), managers being too busy to organise training (two per cent), and employees being too busy to attend training (two per cent) or to deliver training (two per cent).

Financial reasons appeared to be slightly less of a concern in 2015 than in 2013: seven per cent of non-training employers in 2015 said lack of funds for training was their reason for not training, down from 10 per cent in 2013. Lack of funds for training was more likely to be a barrier among non-training employers in the charity and voluntary sector (17 per cent) and among those in Health and Social Work (16 per cent).

As in 2013 perceived poor supply of training was infrequently given as the reason for not training:

- Five per cent of non-training employers said training was not available in the subject area they wanted.
- One per cent of non-training employers said the courses they were interested in were not available locally.

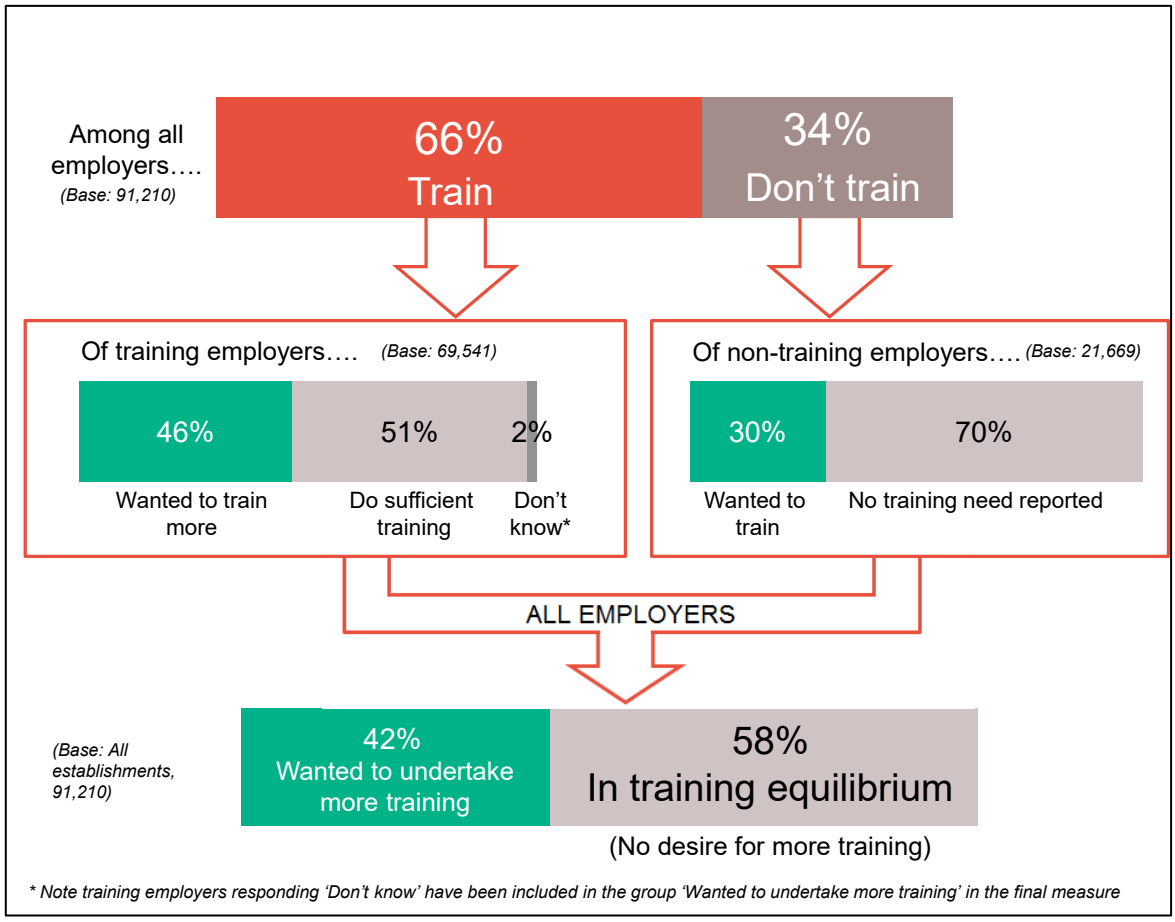
There appeared to be a strong link between the skills gaps reported by employers, their training activity and the reasons for not training. On the one hand, employers that did not report any skills gaps were less likely to train than those that did (63 per cent compared with 85 per cent). Moreover, among non-training employers, those with no perceived skills gaps at the time of the interview were much more likely to say the reason for not training over the previous 12 months was there being no need as all their staff were fully proficient (70 per cent compared with 32 per cent of those with skills gaps) and less likely to give a number of other reasons, in particular a lack of funds for training (seven per cent compared with 17 per cent among non-training employers that reported having skills gaps).

More data on the reasons for not providing training can be found in Table A.5.16 in Annex A.

Figure 5.7 summarises the proportion of all employers that would have liked to have undertaken more training or, in the case of non-training employers, any training, over the previous 12 months[38]. It also shows the proportion that were in 'training equilibrium', in other words had no wish to have undertaken more training. Only results from 2015 are shown – these were all within one percentage point of those found in 2013.

[38] Results for non-trainers have been determined from their reasons for not training, rather than a direct question. Those answering that they had not provided any training because training was not considered to be a priority for their establishment, because all their staff were fully proficient or they had no need for training were regarded as being in skills equilibrium and having no perceived need to undertake training. Those not giving any of these reasons were classified as wanting to have undertaken training. Additionally, training employers that answered 'don't know' when asked if they would have liked to train more were classified as not being in training equilibrium.

Figure 5.7 Employer interest in undertaking more training over the last 12 months than they were able to provide



Overall just over two-fifths of all employers (42 per cent) would have liked to have undertaken more training over the previous 12 months than they were able, exactly the same proportion as in 2013.

The likelihood of *not* being in 'training equilibrium' (i.e. wanting to have undertaken more training over the previous 12 months) increased with establishment size (from over a third (36 per cent) among those with 2-4 staff, to around half for those with 5-99 staff, to three-fifths (62 per cent) among those with 100 or more staff).

5.11 Other development opportunities

It is worth noting that although this chapter has discussed the provision of formal on and off-the-job training, it is the case that among employers where no formal training had been provided in the last 12 months, most (68 per cent, equivalent to 23 per cent of all employers) had provided other development opportunities for their staff covering: supervision to guide employees through their job role, providing staff with opportunities to spend time learning through watching others perform their role, or allowing staff to perform tasks that go beyond their strict job role and providing feedback on how well they had done.

The vast majority (93 per cent) of training employers also provided these wider development activities alongside formal training.

Data on how provision of wider development activities differed by country, sector and size of employer both in 2015, 2013 and 2011, and the nature of the development activity, is provided in Table A.5.17 in Annex A.

5.12 Conclusions

Although there were quite significant changes from 2011 to 2013 in how employers delivered training, between 2013 and 2015 there were very few changes in key training measures such as the proportion of business providing training, the proportion of employees trained, and the average number of days training provided. This could represent a period of consolidation; however, given the more buoyant state of the economy in 2015 than in earlier surveys, and the persistence of skill deficiencies among the workforce, it is perhaps surprising that employer training had not really increased.

Increased employment has likely meant that the total number of staff receiving training and the total number of days training provided both increased by four per cent compared with 2013. Similarly, total expenditure on training increased by six per cent compared with 2013 (not adjusted for inflation) and returned to the level seen in 2011. However, spend *per employee* remained in line with previous years.

There have been changes in employers' approaches to training, with responses showing a high and increasing level of online training and e-learning. This suggests employers are moving towards training methods that offer increased flexibility and customization, particularly in light of the fact that *job specific* training continues to be the most common type of training offered.

Almost half of training employers would have liked to deliver more training over the last 12 months than they did. The most common barriers to this were 'internal' to the establishment (that is, lack of funds or time, lack of staff need or desire for training, and lack of knowledge about opportunities) as opposed to 'external' barriers (such as a lack of local training providers or appropriate training).

Policy interventions seek to stimulate employer training activity not as end in itself but because of its impact on skills, productivity and economic prosperity. How training is delivered and assessed is one element which contributes to high performance within workplaces, and in the next chapter we explore High Performance Working, as well as the product market strategies that employers adopt.

6 High performance working practices and product market strategies

6.1 Chapter Summary

High Performance Working (HPW) is defined by UKCES as a general approach to managing organisations that aims to stimulate more effective employee involvement and commitment in order to achieve high levels of performance. **A minority of employers (12 per cent) adopted 14 or more HPW practices and were thus classified as HPW employers.**

Product Market Strategies (PMS) are defined within the survey according to *private sector* employers' responses to a series of questions exploring pricing strategies, approaches to innovation, and the nature of the product markets that establishments operate in. **Aggregating these responses classified just under half of all *private sector establishments* as having 'high' or 'very high' product market strategies.**

Businesses that adopt HPW practices and those that pursued "very high product market strategies" (i.e. those who lead the way within their industry, offer premium products and services with a high degree of customisation and whose competitive success is not at all price dependent) **tended to be more active in the labour market and had a more frequent experience of skill shortages**: however, they also found it easier to fill their vacancies in the sense that a smaller proportion of their vacancies were hard-to-fill.

HPW employers were also more likely to identify skills gaps in their workforce. This was both in terms of the proportion of establishments with at least one skills gap and the proportion of the workforce deemed not fully proficient in their job. These differences were likely a reflection of HPW employers adopting practices (such as training needs assessments) that would assist in identifying skills gaps in their workforce.

The experience of skills gaps was similar across establishments, irrespective of their product market strategies. However, skills gaps were more likely to have been caused by 'transient' reasons (such as staff being new to the role and/or their training not being completed) in establishments with higher product market strategies.

There was a clear relationship between an establishment's PMS score and their provision of training – those operating at the higher end of the PMS index were more likely to have trained their staff and to have trained a higher proportion of their staff. Employers with higher product market strategies were also more likely to have provided training that led to nationally recognised qualifications and to qualifications that are of a higher level than those at the lower end.

6.2 Introduction

In previous chapters this report has looked at employers' experiences of skill shortages and skills gaps, as well as their practices in funding and arranging training. The analysis in these chapters has largely focussed on how these challenges have affected employers in different parts of the UK, of different sizes and in different industry sectors.

There are other ways of grouping employers to understand commonalities and differences between them. In this chapter we use two alternative categorisations derived from a set of survey questions relating to the planning, organising and performance strategies used by employers. These categorisations will help us to better understand what might influence employers' experiences of skill shortages and skills gaps and what drives them to fund and arrange training for their employees. These two categorisations are:

- Whether or not the employers are High Performance Working (HPW) employers.
- The Product Market Strategies (PMS) that employers adopt.

6.3 High Performance Working

It is not only important to consider the skills challenges faced by employers and the extent to which they develop workplace skills, but also to understand the ways in which employers ensure that skills are harnessed and nurtured in the workplace. If skilled workers are not managed and organised effectively in the workplace then it is likely that their productivity and contribution to economic growth will be limited (UKCES, 2015[39]). One way of assessing the workplace environment is through the measurement of so-called High Performance Working (HPW) practices. High Performance Working is defined by UKCES as 'a general approach to managing organisations that aims to stimulate more effective employee involvement and commitment in order to achieve high levels of performance' (Belt and Giles, 2010).

Consistent with the 2013 survey, ESS 2015 included a series of questions relating to a set of 21 recognised HPW practices. In line with other analysis of HPW practices undertaken by UKCES[40], it is possible to group the HPW practices into five factors: planning; organisation; skills; rewards; and autonomy. Table 6.1 details these five factors and the individual HPW practices that form each group.

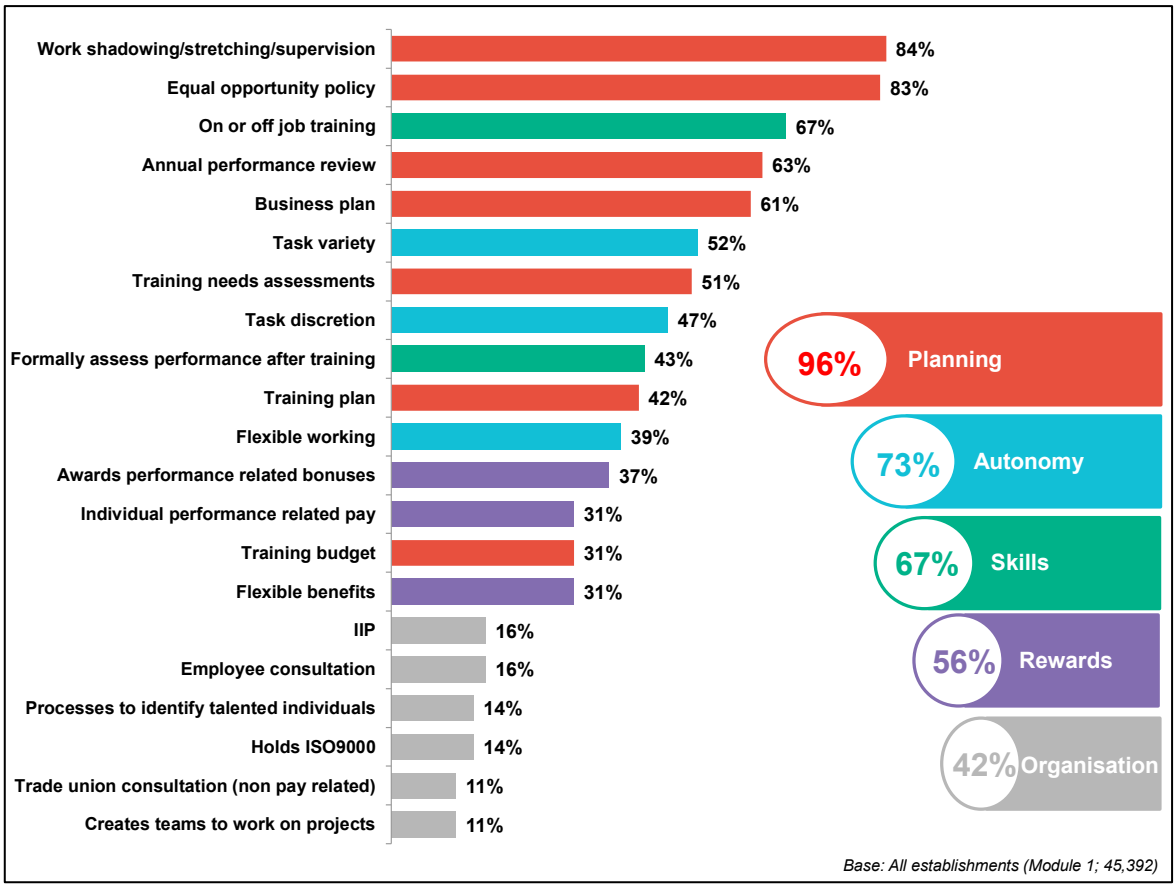
[39] UKCES (2015). Growth Through People: Evidence and Analysis. UK Commission for Employment and Skills.
[40] Brown, D. (2014). High Performance Working: a new segmentation of smaller workplaces. UK Commission for Employment and Skills.

Table 6.1 High Performance Working (HPW) practices according to the five factors

Factor name	HPW practices
Planning	Training plan, annual performance review, training budget, work shadowing, business plan, equal opportunities policy, training needs assessment
Organisation	Investors in People (IIP), ISO 9000, trade union consultation, employee consultation, working in teams, process to identify talented individuals
Skills	On or off the job training, formal performance review after training
Rewards	Bonus scheme, performance related pay, flexible benefits
Autonomy	Task variety, task discretion, flexible working.

Figure 6.1 shows the proportion of employers that adopted each individual HPW practice and the proportion that adopted at least one of the practices according to the five factor groupings.

Figure 6.1 Employer adoption of High Performance Working (HPW) practices



Overall, 12 per cent of employers adopted 14 out of the 21 HPW practices which – in line with the approach taken in ESS 2013 – classified these establishments as being High Performance Working employers (HPW employers). The proportion of employers classified as being HPW employers was consistent with ESS 2013. The remainder of this section focusses on this select group of HPW employers.

Previous analysis of HPW employers has shown that small-to-medium sized establishments (those with 5-99 employees) are of particular interest when considering the influences of HPW practices (Brown, 2014). When introducing working practices it is inevitable that employers weigh-up the costs of implementing the practice(s) and the benefit(s) gained. For the very smallest employers with fewer than five employees, the formal adoption of HPW practices is more likely to fail the cost-benefit test. In contrast, the greater human resources management in the largest establishments with 100 or more employees likely lowers these costs and makes the adoption of HPW practices more of a cultural norm rather than a conscious decision to adopt them. For employers in the small-to-medium size band (with 5-99 employees), the implementation of HPW practices is more likely to be a considered choice. Whilst this chapter looks at differences by each of the different size bands within HPW and non-HPW employers, where it is of interest it will also look at differences within the 5-99 size band.

When considering HPW employers it is worth noting that:

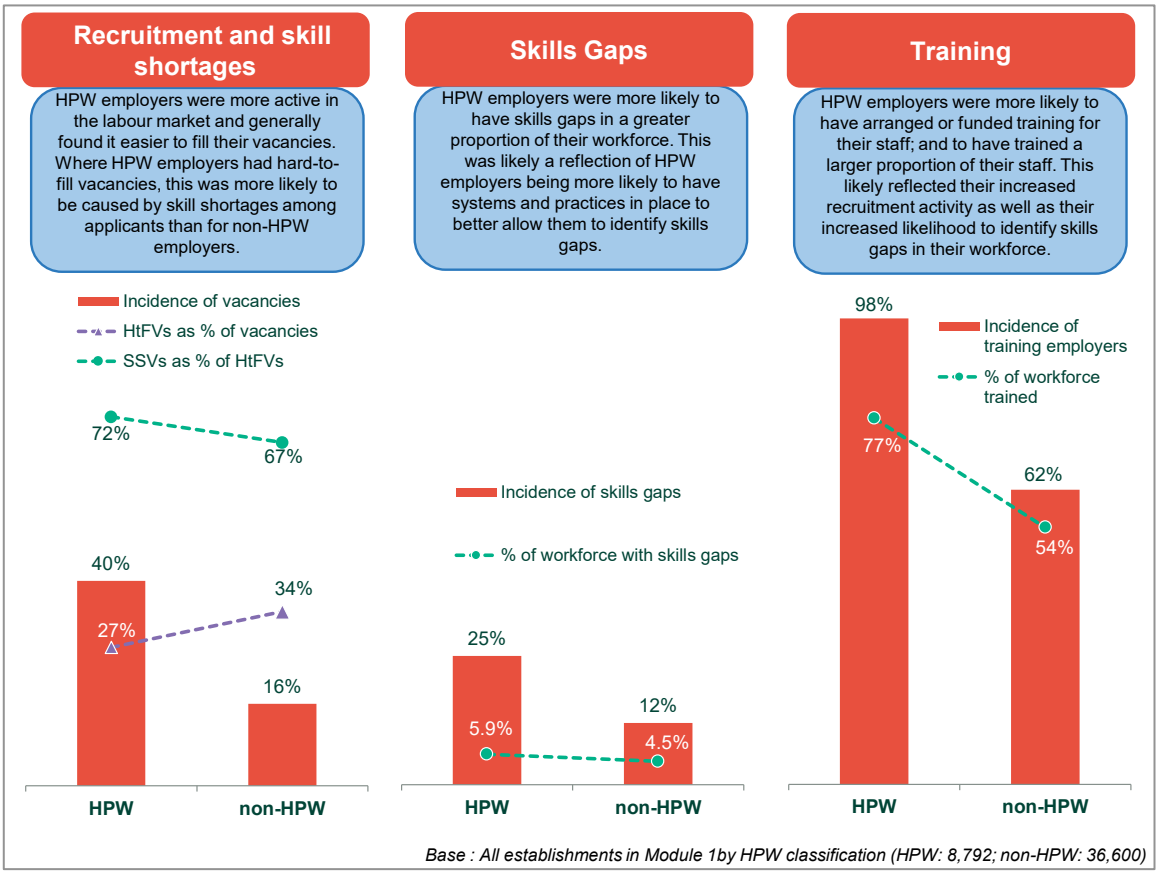
- There was a strong link between HPW status and the size of establishment. Only four per cent of establishments with fewer than five employees adopted 14 or more of the HPW practices, increasing to 66 per cent of all establishments with 250 or more employees. The proportion of the workforce employed by HPW establishments, therefore, was disproportionately large at approximately two-fifths of the workforce.

- HPW employers were disproportionately likely to be part of a wider organisation and, thus, had access to the associated resources and management structures that this often provides (70 per cent of all HPW employers were multi-site establishments, whereas only a third of all employers overall were multi-site).

- The sector profile of HPW employers varied considerably. As many as two in five employers in the Public Administration sector were HPW employers (40 per cent), and more than a quarter of employers in the Education sector were (28 per cent). Highlighting the link between HPW employer and size, it should be noted that both of these sectors were characterised by a higher proportion of large employers than other sectors. The Health and Social Work and Financial Services sectors also had a large proportion of employers that were HPW employers (22 and 17 per cent respectively). Conversely, only two per cent of employers in Agriculture and four per cent in Construction were HPW employers (two sectors that tended to comprise small, single-site establishments).

The following subsections of this chapter discuss the differing experiences of HPW and non-HPW employers in terms of skill shortages, training and skills gaps: Figure 6.2 summarises these findings. Unless otherwise stated, the findings reported in this section are consistent with findings reported in 2013.

Figure 6.2 Summary of employers' experiences of skill shortages, skills gaps and training depending on High Performance Working (HPW) classification



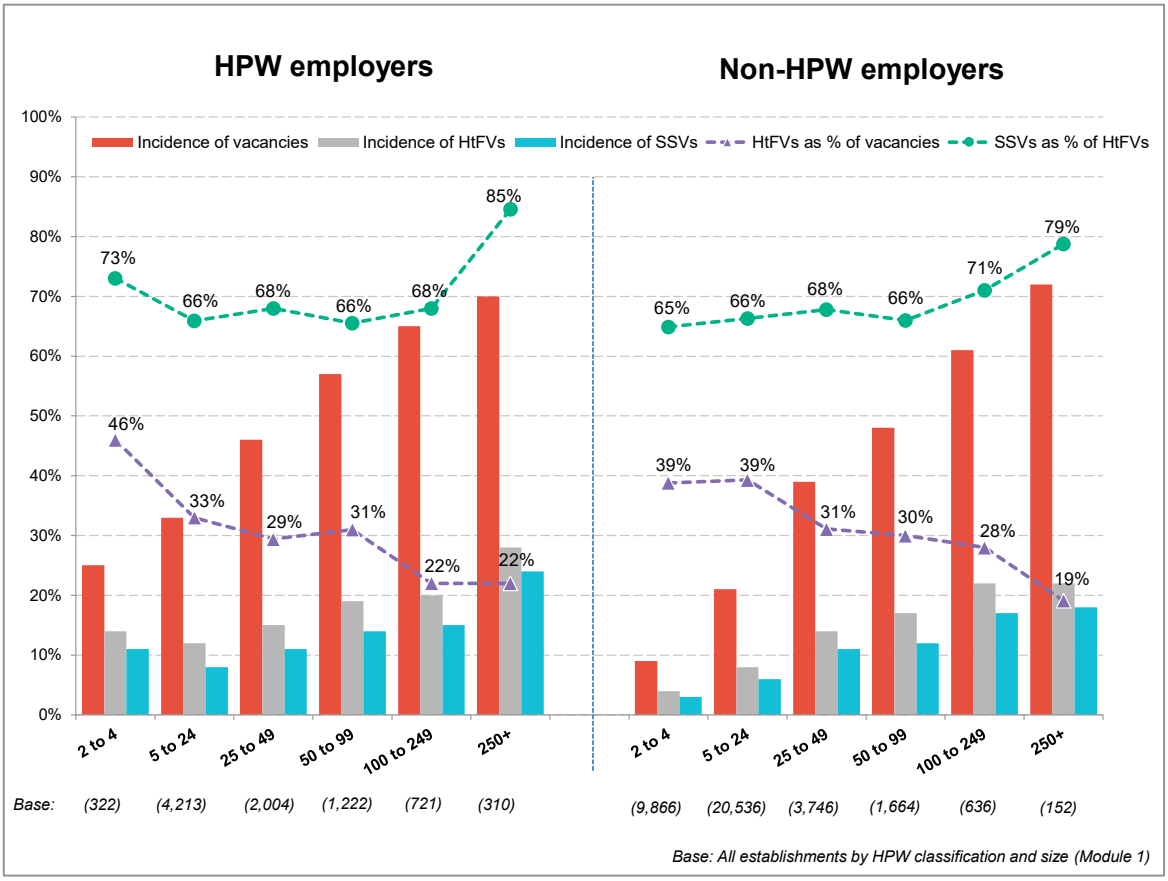
6.4 The relationship between HPW and skill shortages

HPW employers were considerably more active in the recruitment market than non-HPW employers and were (consequently) more likely to have experienced at least one hard-to-fill vacancy and at least one skill-shortage vacancy (see the furthest left chart of Figure 6.2). However, in density terms, a smaller proportion of HPW employers' vacancies were hard-to-fill (27 per cent compared with 34 per cent in non-HPW employers).

Where HPW employers encountered hard-to-fill vacancies, a greater proportion of these were caused by skill shortages (72 per cent of hard-to-fill vacancies were caused by skill shortages in HPW employers compared with 67 per cent in non-HPW employers). This suggests that HPW employers had a greater demand for skills, qualifications and experience when recruiting than non-HPW employers.

It is important to consider the effect of size when understanding these differences. As illustrated in Figure 6.3, the incidence of establishments that had at least one vacancy, at least one hard-to-fill vacancy and at least one skill-shortage vacancy was generally greater in HPW employers for each size band compared with their non-HPW counterparts (with a few isolated exceptions). This was particularly evident in the smallest size band (employers with fewer than five employees), but also in the group of employers with 5-99 employees which, as discussed earlier, is a group of employers that are of particular interest when considering the effects of HPW adoption.

Figure 6.3 Incidence and density of vacancies, hard-to-fill vacancies (HtFVs) and skill-shortage vacancies (SSVs) by HPW classification and size



That said, when considering the *density* of hard-to-fill and skill-shortage vacancies among HPW and non-HPW employers of different sizes the picture is less clear. The density of hard-to-fill and of skill-shortage vacancies was higher among HPW employers in the smallest size band (those with fewer than five employees) than in non-HPW employers of the same size. That is, HPW employers of this size found it harder to fill their vacancies than their non-HPW counterparts and were more likely to encounter skill shortages in the labour market.

This picture did not hold true in other size bands where the densities of hard-to-fill and skill-shortage vacancies were similar irrespective of HPW status.

Table A.6.1 in Annex A provides a full breakdown of the differences in recruitment activity between HPW and non-HPW employers, including differences by size.

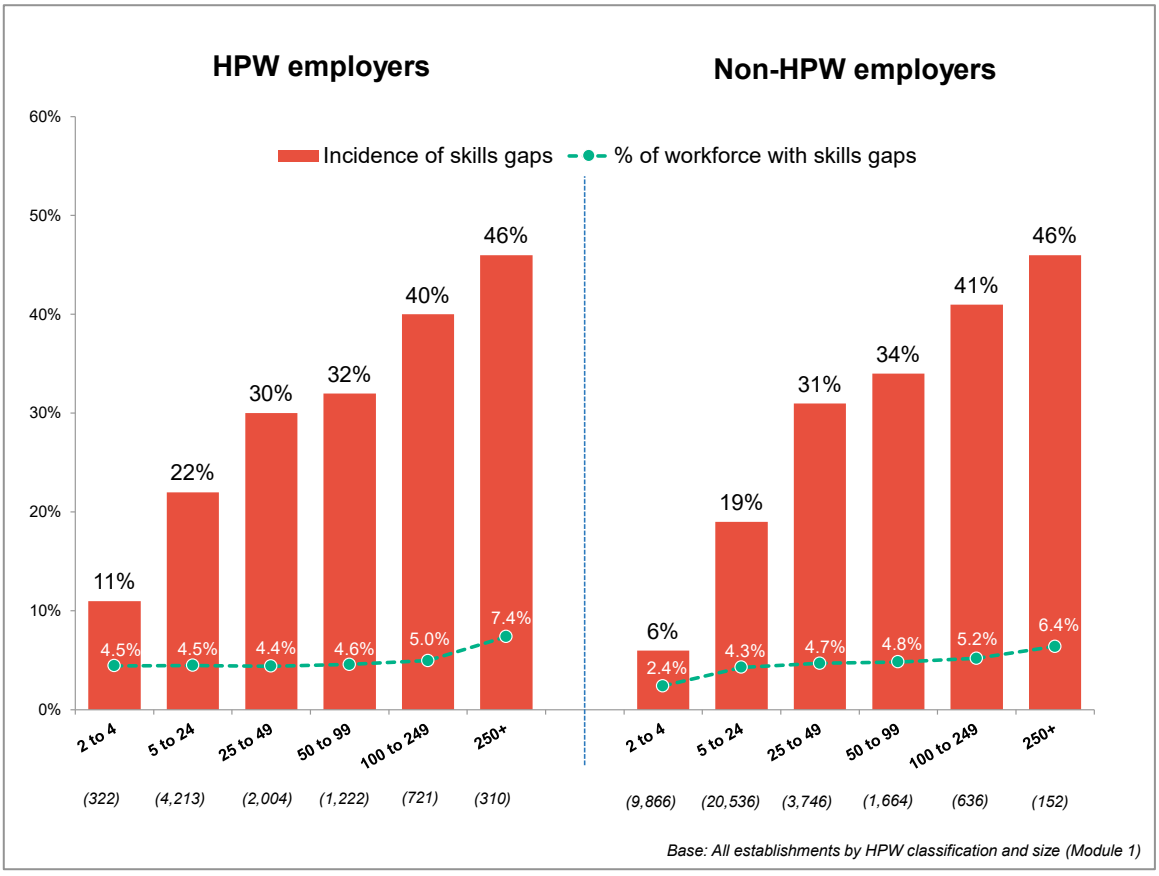
6.5 The relationship between HPW and skills gaps

A greater proportion of HPW employers had skills gaps in their workforce than non-HPW employers (Figure 6.2). This was both in terms of the proportion of establishments with at least one skills gap (25 per cent of HPW employers had a skills gap compared with 12 per cent of non-HPW employers), and the proportion of the workforce deemed not fully proficient in their job (5.9 per cent among HPW employers, a small but significant difference to the 4.5 per cent among their non-HPW counterparts).

This difference in the experience of skills gaps was only evident among smaller establishments (see Figure 6.4). In particular, it was only among employers with fewer than 25 employees where the incidence of skills gaps was greater among HPW employers than non-HPW employers. Also, it was only among the very smallest establishments with fewer than five employees where the proportion of the workforce with skills gaps was significantly higher among HPW employers than among their non-HPW counterparts.

This was different to 2013 when the proportion of the workforce with skills gaps was the same across both HPW and non-HPW employers (even though a greater proportion of HPW employers had at least one skills gap in their workforce).

Figure 6.4 Incidence and density of skills gaps by HPW classification and size



The greater incidence and density of skills gaps in HPW employers, relative to non-HPW employers, was not necessarily a negative thing. It should be noted that a number of the HPW practices (such as the conducting of training needs assessments, annual performance reviews and formally assessing performance after training) were likely to have assisted HPW employers in identifying skills gaps in their workforce and, through identifying such gaps, allowed them to be addressed.

6.6 The relationship between HPW and training

HPW employers were much more likely than non-HPW employers to have arranged or funded training for their employees over the 12 months prior to the survey (98 per cent had done so, compared with 62 per cent of non-HPW employers, see Figure 6.2). HPW employers had also trained a much greater proportion of their workforce over this period than non-HPW establishments (77 per cent compared with 54 per cent, respectively). This suggested that HPW employers took a more active role in developing the skills of their workforce.

Arranging or funding training for staff was one of the 21 HPW practices recognised in the survey (along with other training related practices, such as having a training plan); it is therefore not surprising that HPW employers were more likely to have arranged or funded training for their employees. However, it should also be noted from earlier that HPW employers were more active in the recruitment market and thus likely had greater need to train new recruits. Similarly, the previous section on skills gaps suggested that HPW employers were more likely to identify skills gaps in their workforce and thus identify a need for training and developing the skills of their workforce.

These training differences between HPW and non-HPW employers were evident across all size bands. That is to say within each size band the proportion of training employers and the proportion of staff trained was greater among HPW employers than non-HPW employers. It was also the case that the tendency to train was greater among HPW employers in every sector. These training-related data by size and sector in HPW and non-HPW employers are provided in Table A.6.2 in Annex A.

The ESS data not only allow us to assess whether (and how much) training was arranged or funded by employers, but also provide some insight into the level and quality of training undertaken (i.e. whether the training was towards nationally recognised qualifications and the level of qualifications trained to). HPW employers were more likely to have funded or arranged training towards nationally recognised qualifications and to qualifications that are of a higher level. Specifically, 63 per cent of HPW employers that had trained their staff had arranged or funded training towards a nationally recognised qualification over the 12 months prior to the survey (compared with 43 per cent of non-HPW employers). Furthermore, a greater proportion of HPW employers (25 per cent) had trained their staff to qualifications at Level 4 and above compared with non-HPW employers (12 per cent).

6.7 Product market strategies

Product market strategies (PMS) describe the ways in which private sector establishments choose to differentiate and position the products and services they provide within the markets in which they operate. Employers operating 'higher' product market strategies offer greater opportunity for sustainable business growth and productivity which should, in turn, place a greater demand on skills. The inter-relationship between PMS and workforce skills is a theme of policy interest for government as the availability of workforce skills may have a bearing on the strategies that firms are able to pursue (and on their medium and long-term success).

Within the survey, ***private sector employers*** were asked to rate their establishments on a five-point scale, compared to other establishments in the same industries, in terms of:

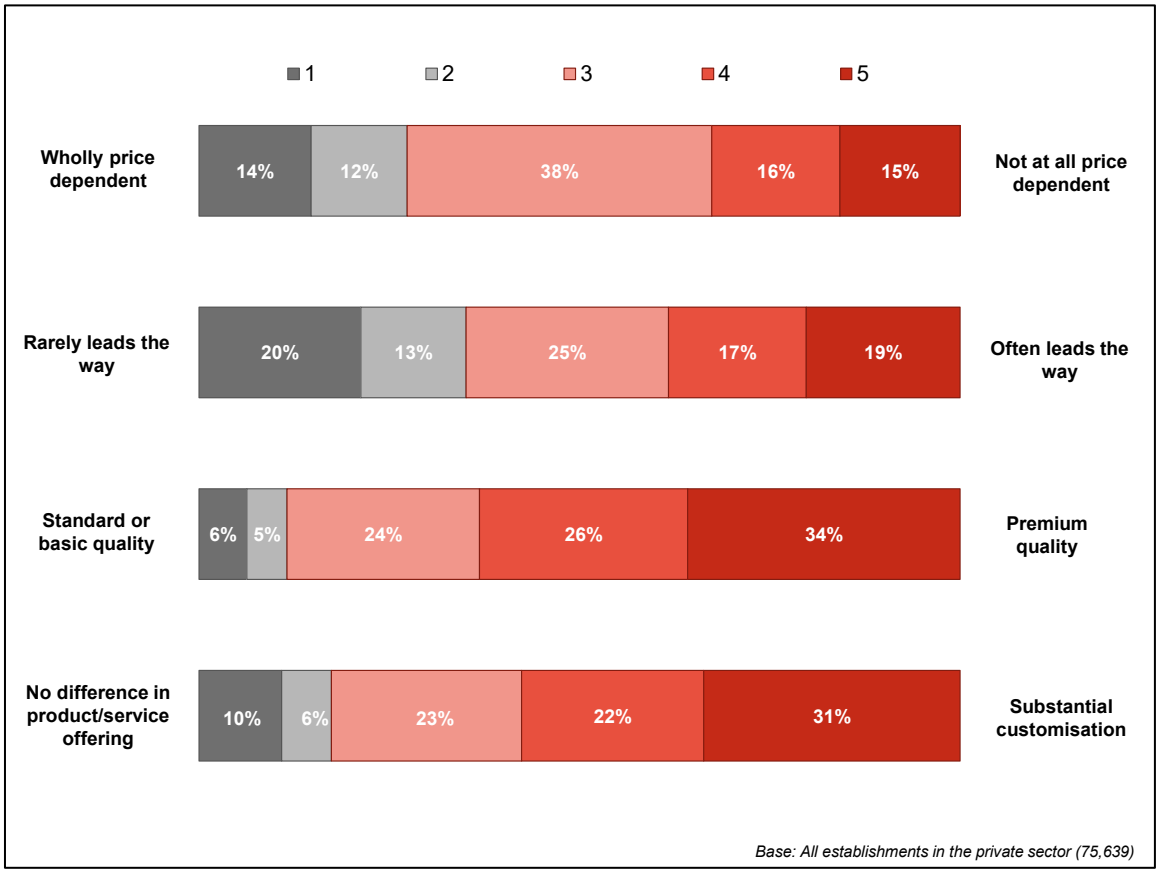
- the extent to which their competitive success depended on price.
- the extent to which the establishment tended to lead the way in their industry in terms of the development of new products, materials or techniques.
- the extent to which the establishment competed in a 'premium quality' product market as opposed to a 'standard or basic quality' product market.
- the extent to which they offered goods or services with a substantial amount of customisation according to customer requirements.

Figure 6.5 illustrates the overall responses to each of these individual product market 'position statements', including the score attributed to each response.

The responses to the position statements were very similar to 2013 and 2011. This lack of change over time was expected given that the 'position statements' asked in the survey were standardised in the sense that employers were asked to compare their products and services against those provided by others in their industry (i.e. if there had been industry-wide advancements in product market strategies the individual employers' positioning within the industry against their competitors would not necessarily have changed).

That said, there was a small but significant move towards employers having a substantial level of customisation in their offering and the competitive success of employers' products or services being 'not at all price dependent' (a two percentage point increase in the proportion of employers that provided a 'score' of five for these two statements).

Figure 6.5 Product Market Strategy positions



6.8 Deriving a composite Product Market Index

In order to discern the overall product market strategies of each establishment, the responses to the four product market 'position statements' were aggregated to derive a composite PMS score. These composite scores were then converted to a fivefold classification ranging from 'very low' to 'very high' (see Table 6.2). A 'very high' composite score indicated that the employer tended to lead the way and innovate in its sector, tended not to compete on price and/or tended to offer a premium and/or highly customised product or service. Conversely, a 'very low' composite score indicated that the employer tended not to do any of these things.

Table 6.2 Overall composite Product Market Strategy scores

Aggregate PMS score		% of private sector UK establishments	% of private sector UK employment
1 to 7	Very low	4	2
8 to 10	Low	13	9
11 to 13	Medium	25	22
14 to 16	High	29	31
17 to 20	Very high	16	22

Base: All establishments in the private sector (75,639).

Note: Figures do not sum to 100 per cent as 'Don't know' responses have been excluded.

6.9 Profiling higher and lower composite PMS score employers

Employers at the 'very high' end of the PMS scale tended to be larger on average than those at the 'very low' end. However, as in 2013, it was the case that all of the PMS classifications (from very low to very high) were dominated by small establishments with fewer than 25 employees (see Table 6.3). It should therefore be noted that the analyses presented in the remainder of this chapter, looking at differences by PMS grouping, are – in effect − predominantly a discussion about smaller establishments regardless of which PMS grouping they fell into. This means that differences recorded between PMS groupings are not likely to be driven (solely) by size.

Table 6.3 Overall composite Product Market Strategy scores by size

	All private sector	Very Low	Low	Medium	High	Very High
Unwtd Base:	*75,639*	*2,673*	*8,771*	*18,544*	*22,832*	*13,385*
	%	%	%	%	%	%
Size						
2-4	53	67	61	54	50	47
5-24	38	29	34	38	40	40
25-49	5	2	3	5	6	7
50-99	2	1	1	2	3	3
100-249	1	*	*	1	1	2
250+	1	*	*	*	1	1

Base: All establishments in the private sector, by PMS classification.

'' denotes a figure larger than zero but smaller than 0.5.*

At the 'very high' end of the PMS scale the sectoral distribution was largely in line with the overall sector profile of private sector establishments (i.e. no single sector was disproportionately represented in the 'very high' PMS grouping). At the lower end of the PMS groupings, however, employers with a 'very low' PMS score were disproportionately likely to be operating in the Agriculture and Construction sectors (these sectors accounted for 35 per cent of all 'very low' PMS establishments but only 17 per cent of all private sector establishments).

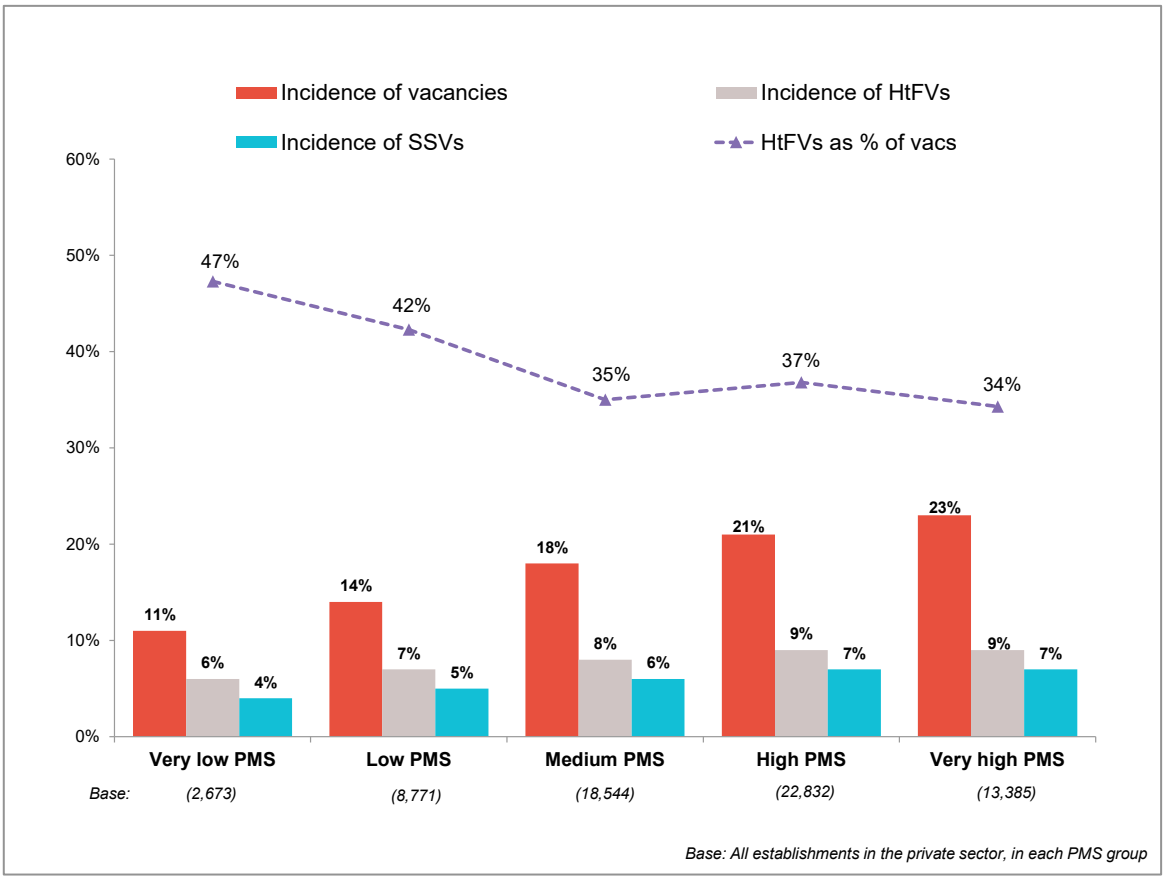
Table A.6.3 in Annex A provides further detail on the characteristics of employers in each PMS category in terms of country and sector.

The following subsections of this chapter discuss the experiences of employers according to their differing positions on the PMS scale. Unless otherwise stated, the findings reported in this section are consistent with findings reported in 2013.

6.10 Relationship between PMS and skill shortages

As illustrated in Figure 6.6, establishments with a higher PMS score were more active in the recruitment market. The incidence of establishments with vacancies increased from 11 per cent among those with a 'very low' PMS score to 23 per cent among those with a 'very high' PMS score. In line with this increase in recruitment activity, employers at the higher end of the of the PMS index were also more likely to have at least one hard-to-fill vacancy and at least one skill-shortage vacancy (see Figure 6.6).

Figure 6.6 Incidence of vacancies, hard-to-fill vacancies (HtFVs) and skill-shortage vacancies (SSVs), as well as density of HtFVs, by Product Market Strategy classification



It is worth noting, however, that as a proportion of recruiting employers, the likelihood of encountering a hard-to-fill vacancy and skill-shortage vacancy was actually lower among employers at the higher end of the PMS index. Of the 11 per cent of 'very low' PMS employers that had at least one vacancy, over half had at least one hard-to-fill vacancy (55 per cent, which equated to six per cent of all 'very low' PMS employers). This decreases the higher the PMS score. Of the 23 per cent of 'very high' PMS employers that had at least one vacancy, around four in ten had at least one hard-to-fill vacancy (39 per cent, which equated to nine per cent of *all* 'very high' PMS employers). In contrast, this indicates that employers at the higher end of the PMS index were able to compete more strongly in the labour market when recruiting. That is, by virtue of their approach and positioning, higher PMS employers were able to appear more attractive to potential recruits and, thus, found it easier to successfully fill their vacancies.

However, when considering the density of hard-to-fill vacancies (i.e. the number of hard-to-fill vacancies as a proportion of all vacancies) there was not a linear trend across the PMS groupings. Rather, the density of hard-to-fill vacancies remained similar for establishments with a 'medium', 'high' and 'very high' PMS score (see Figure 6.6). Nevertheless, the density of hard-to-fill vacancies was significantly higher among establishments at the lower ends of the PMS index.

There was no linear trend between PMS and the density of skill-shortage vacancies (i.e. the number of skill-shortage vacancies as a proportion of all hard-to-fill vacancies).

Table A.6.4 in Annex A provides a full breakdown of the differences in recruitment activity by PMS classification.

6.11 The relationship between PMS and skills gaps

As detailed in Table 6.4, there was no clear relationship between an establishment's product market strategy and the incidence or density of skills gaps.

Table 6.4 Incidence and density of skills gaps by Product Market Strategy

	Very low	Low	Medium	High	Very high
Unweighted Base	*455*	*1,815*	*4,164*	*5,045*	*2,643*
	%	%	%	%	%
% of establishments with a skills gap	12	13	15	15	14
% of workforce with skills gaps	5	6	6	6	5

There were some differences in the main causes that employers attributed their skills gaps to between the various PMS groupings. The main causes of staff not being fully proficient are presented in Table 6.5.

There was a broad trend of an increased proportion of skills gaps that were ascribed to transient causes (i.e. staff were new to the role and/or their training was not complete) in establishments with higher product market strategies. Specifically, 19 per cent of skills gaps in both 'low' and 'very low' PMS establishments were due to transient causes, rising to 25 per cent in 'very high' PMS establishments. It can take time for new staff to reach full proficiency and, given these transient causes, one would expect a greater proportion of skills gaps to be resolved given time in establishments with higher product market strategies. Indeed, employers with higher product market strategies were less likely to have attributed skills gaps to staff having not received the appropriate training.

Table 6.5 Main causes of skills gaps (prompted), by Product Market Strategy

	Very low	Low	Medium	High	Very high
Unweighted Base	*455*	*1,815*	*4,164*	*5,045*	*2,643*
	%	%	%	%	%
Transient causes					
Staff are new to the role	53	65	59	62	66
Their training is currently only partially completed	51	61	57	60	56
Summary: Skills gaps due to transient causes	19	19	20	22	25
Other causes					
Staff lack motivation	32	40	37	35	29
They have been on training but their performance has not improved sufficiently	24	34	34	27	28
Introduction of new working practices	21	22	28	25	25
Staff have not received the appropriate training	37	31	28	25	22
Unable to recruit staff with the required skills	28	27	28	28	22
Introduction of new technology	14	16	15	17	20
Development of new products and services	10	16	17	16	23
Problems retaining staff	19	23	20	15	17

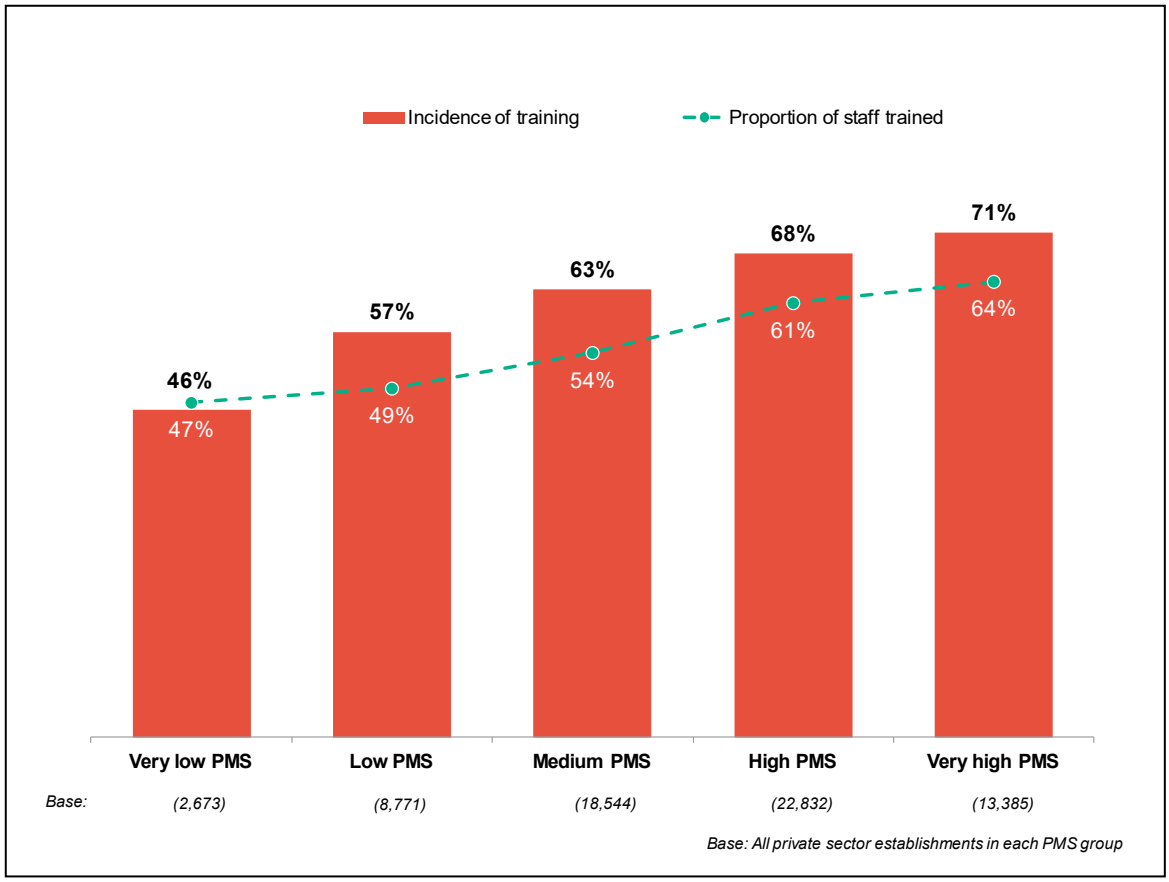
Base: All establishments in the private sector with skills gaps; up to two skills gaps followed up.

Percentages shown as a proportion of all skills gaps followed up.

6.12 The relationship between PMS and training

As illustrated in Figure 6.7, there was a linear relationship between an establishment's product market strategies and their level of training activity over the 12 months prior to the survey. As the PMS composite score increases, both the incidence of establishments that had provided training for their staff and the proportion of the workforce trained also increases.

Figure 6.7 Incidence of training and proportions of the workforce trained by Product Market Strategy classification



As reported in Chapter 5, a strong relationship existed between employer size and training activity, with the likelihood of training increasing with employer size. We have also seen in this chapter that employers with higher PMS scores tend to be larger employers. However, it is not merely size that drives the finding that high PMS employers train more. Indeed, it was invariably the case that for each size band the employers with a higher PMS score were more likely to have trained their employees and to have trained a greater proportion of their staff (see Table A.6.5 in Annex A). Therefore, like for like, employers that operated with higher product market strategies were more likely to have identified the need for, and to have invested in, skills development.

Looking at the types of training provided, there was a relationship between an employers' PMS score and the provision of induction training. Around half (52 per cent) of all training employers with a 'very low' PMS score had provided either basic or advanced induction training, increasing to around three-quarters (72 per cent) of all training employers with a 'very high' PMS score. Given the greater level of activity in the recruitment market among establishments with a higher PMS score, this increased provision of induction training is perhaps unsurprising and is one reason why employers with higher product market strategies provide more training overall.

A greater proportion of employers that had trained their staff and operated at the lower end of the PMS index *only* provided induction and/or health and safety for their staff (16 per cent of training employers with a 'very low' PMS score and 12 per cent of those with a 'low' PMS score). The proportion of training employers that *only* provided these types of training was consistent across the 'medium', 'high' and 'very high' PMS groupings at 10 per cent. Induction training and health and safety training can often be relatively basic and a legislative requirement, rather than being something that is focussed on the development of workforce skills. This finding further suggests, therefore, that the training undertaken by employers with higher product market strategies was more focussed on developing the skills of their workforce.

Employers with higher PMS scores were also more likely to have funded or arranged training towards nationally recognised qualifications and to qualifications that are of a higher level than employers at the lower end of the PMS index. Nearly half (47 per cent) of all training employers with a 'very high' PMS score had arranged or funded training for their staff to a nationally recognised qualification compared with 43 per cent of employers with a 'very low' PMS score. When considering the level of qualifications trained to, the proportion of training employers that had trained their staff to qualifications at Level 4 or above increased with PMS (from seven per cent among establishments with a 'very low' PMS score to 16 per cent among those with a 'very high' PMS score).

6.13 Conclusion

In this final chapter of the report we have considered how the strategies that employers adopt impact on their experiences of skills challenges.

We have seen that employers that pursue High Performance Working (HPW) practices, and those who pursue higher product market strategies, were more active in the labour market and were consequently more likely to experience skill shortages, were more likely to identify skills gaps and were more likely to be responding to these factors through the provision of training.

This reflects and confirms that the existence of skill deficiencies is not always a negative indicator for individual employers or for the economy. The pursuit of ambitious strategies, which help in driving the UK economy forward in its pursuit of higher productivity levels, can both point to skills deficiencies (because better practices are in place to identify them) and create them (because skills development can lag behind innovation in workplace practice and service delivery). The challenge becomes how to deal with such deficiencies. Here, it was clear that High Performance employers and those with more advanced strategies were markedly more likely to fund and arrange training to develop the skills of their workforce.

7 Conclusions

7.1 Introduction

This chapter draws out some important themes and questions raised by the survey overall. Beginning with an exploration of what the survey tells us about the changes in the economy and the impact on skill, it goes on to explore what the survey tells us about training investment, management and leadership skills and the risks of sub-optimal skills for a productive workforce.

7.2 Tracking developments in the UK economy

The Employer Skills Survey is a vital source of data on skills and the labour market. It offers a unique insight into the micro decisions that employers make about factors such as recruitment, training investment and use of skills in the workplace, which underpin the macro-level trends that drive UK economic growth and productivity levels.

The UK has witnessed job creation at a faster rate than in any other EU country over the last two years (Eurostat, 2015). Reflecting this growth, successive waves of the UK Employer Skills Survey have recorded a steep rise in vacancy levels among employers - from 655,000 vacancies at the time of the survey in 2013 to 927,000 in 2015 – reflecting high demand for labour.

However, this growth in the economy has been accompanied by stalling productivity levels, which remain some distance behind our main EU counterparts (UKCES, 2015). Numerous studies have shown that improving skills and education serves to increase productivity (Garrett and Campbell, 2010); the deployment of skills in the labour market is therefore of critical importance to the country's future prospects and prosperity. Ensuring the right people with the relevant skills are being employed in the right job roles should help employers to take advantage of the platform that the current buoyant economy affords. However, the survey findings indicate that as vacancies have risen, so too has the number of vacancies that are hard to fill because applicants lack the requisite skills. There are now nearly a million of these skill-shortage vacancies across the UK.

This survey shows that the overall UK picture hides much interesting variation between the skills challenges faced by employers in different sectors and the survey allows these changes to be tracked over time.

For example, whilst Manufacturing, Electricity, Gas and Water, Transport and Communications, Construction and Business Services all report higher than average density of skill-shortage vacancies, it is the Financial Services and Construction sectors which have seen a substantial increase in the density of skill-shortage vacancies since 2013, in contrast to most other sectors. What might lie behind this growth and what are the potential consequences?

The Financial Services sector has undergone extensive upheaval, following the financial crisis and subsequent recession. Regulatory change in the sector is ongoing and wide reaching; the demands of the roles in the sector are changing and these are possibly acting as a deterrent to people entering the sector. There are indications for example that the proportion of graduates entering this sector has declined gradually since 2006 (HESA, 2015). Skill-shortage vacancies are hampering the ability of businesses in this sector to innovate, with nearly half stating that an inability to recruit appropriately skilled candidates has led to difficulties introducing new working practices.

The Construction sector is commonly regarded as underpinning the economy, with its responsibilities for creating the infrastructure that allows businesses to grow (HM Government, 2013b). A doubling in the number of skill-shortage vacancies since 2013 therefore presents some cause for concern, especially considering that employment in the Construction sector has decreased since 2013, from 1.3m to 1.2m staff, and hence one would expect a ready supply of skilled labour. Skill-shortage vacancies are affecting the bottom line. Construction sector employers were the most likely to cite a loss of business or orders to competitors resulting from skill-shortage vacancies, this in turn has implications for growth potential in the wider economy.

This more granular data at UK, national, local, sectoral and occupation level provides employers, governments, education institutions and many other bodies with the information they need to plan, to prioritise and to invest.

7.3 Changing nature of work

UKCES' wider research has highlighted that the nature of work is evolving at a rapid rate, with new technology and digitisation rapidly changing the skill requirements of the workforce. Increasingly, the digitisation of work is placing demands on staff to operate flexibly and adapt to new technologies. Job roles are becoming more complex and employers are expecting more from their employees (Störmer *et al.*, 2014).

ESS 2015 identifies a number of clear challenges for employers in this respect. It highlights a lack of complex analytical skills among both applicants and existing staff. These are of vital importance as technologies become more elaborate, and innovation and adaptation is increasingly key to organisational growth. In a similar vein, *across all job roles,* a lack of ***basic*** IT skills characterises between one in five and two in five employees who are not fully proficient in their job role. A lack of advanced IT skills is similarly associated with skills gaps for high-skill and middle-skill occupations, such as Managers and Administrative and Clerical staff, in particular.

Beyond the challenges of technology, the survey also highlights the ongoing challenge of soft, people and personal skills, in particular time management and task prioritisation skills. Crucially, the demand for time management and task prioritisation skills is evident across all occupations, both higher and lower skilled, and implies a link to the growing complexity of job roles, requiring individuals to juggle multiple strands of work and responsibility. Poor time management can lead to inefficiencies within organisations, potentially resulting in increased, poorer quality outputs and loss of work.

7.4 Training investment

We know that around 90 per cent of the current labour force have the potential to be active in the labour market a decade from now (UKCES, 2014b). Therefore, the economy cannot rely on initial education alone to ensure people have the continuously changing skills that are needed: the workplace is a vital location to develop these skills. ESS 2015 provides a comprehensive view of employer investment in staff training and allows some assessment of whether that training is sufficient to meet employer's own needs, or whether there are 'market failures' in the supply of and demand for training.

Around two-thirds of businesses provide training for their staff, a similar proportion of employees are trained and on average those trained receive 6.8 days training per year. These numbers have changed little since 2013, though the overall number of training days has increased. As businesses have been recruiting, there is some evidence of an increase in the proportion of employers that are providing induction training, which may be driving the increase in the number of days, and an increase in the proportion who have provided *only* Health and Safety or induction training (11 per cent, up from nine per cent in 2013). Arguably, it is probably not this type of training that will best equip individuals with the technical skills, complex analytical skills or people skills staff need.

The survey explores other indicators of the quality of training including whether the training leads to a qualification. Just under a half of training employers provided training which led to a qualification, equivalent to three in ten (31 per cent) of all employers. Again, these figures have changed little since 2013. The survey raises questions about whether these static levels are sufficient and whether one would hope and expect to see change in this investment given the opportunities presented by a buoyant economy and the persistence of skill deficiencies reported by the ESS over time.

These national figures mask significant variations which could impact on the appropriate response. For example, the proportion of businesses providing any training ranged from 50 per cent in the Agriculture sector to 93 per cent in Education, from 51 per cent in the smallest establishments to 97 per cent in the largest; by occupation, Caring, Leisure and Other Services were most likely to receive training (80 per cent of people in those posts) compared to 48 per cent of Managers. The average spend per person trained varied from £1,130 in Wholesale and Retail to £2,320 in Electricity Gas and Water. And the proportion of establishments that trained to a qualification ranged from 43 per cent in Manufacturing to 65 per cent in Health & Social Work and in Education.

Interestingly, there have been recent developments in the *approaches* undertaken by employers to develop their staff. The survey points to high and increasing use of e-learning and online training; this is now used by approaching half of employers that train, with recent users more than twice as likely to say its use had increased than to say its use had decreased. This suggests that employers are increasingly turning to innovative and flexible methods of training and developing their staff. This confirms wider research which points to an increase in online or distance learning in the UK. It is often promoted as a way for employers to deliver in house training to their staff, much of which can be done in work time, within the work environment and at the employees own pace, allowing them to gain accreditation and complete modules without having to travel away to training days. The literature also suggests a strong drive towards blended learning, a combination of online and face to face contact (The Economist, 2014).

Additionally, the survey is an important source of information on the operation of the training market and provides data on a number of measures of potential market failure. In particular, it establishes that half of training employers would like to provide more training than they currently do. The main barriers that prevented them doing so were a lack of funds and time for training. Other UKCES research (UKCES, 2009) suggests employers may not be fully recognising the value of training and view it more as a cost than an investment, which might be indicated by the reporting of these barriers. Very few reported barriers associated with the supply of skills, though there was some sectoral variation in these figures, most barriers were perhaps related to employers own demand for skills.

This demand for skills is derived from the firm's own business strategy. ESS 2015 illustrates that businesses with higher product market strategies and who operate with more High Performance Working practices are more likely to report skill-shortage vacancies, marginally more likely to identify skills gaps and more likely to be responding to these factors through the provision of training. These businesses are vital to the well-being of the economy and if more businesses pursue these strategies, this will increase the demand for skills. So the survey raises important questions about whether the demand for skills is adequate to fuel the continuing recovery.

7.5 Leadership and management

A potential determinant of the demand for skills is the knowledge managers have about training, and potential value to their business (UKCES, 2009). Recent international studies have revealed large variation in management quality across firms within all countries. What accounts for the difference between countries is the absence (e.g. US) or presence (e.g. India; UK) of a long tail of poorly managed firms. Even though the UK's best firms are often world leading, the presence of a large number of poorly managed firms means the UK does not measure up to the likes of the US on management capability (Bloom *et al.,* 2012).

ESS 2015 includes a number of indicators pertinent to understanding leadership and management skills. Survey findings indicate that just over a third of employers (37 per cent) were investing in the skills of their Managers through the provision of management training. The density of skill-shortage vacancies and skills gaps within the Manager occupational grouping is, and has consistently been shown to be, lower than average, with commentators (Campbell, 2013) previously suggesting this pointed to a lack of demand for management skills or the difficulty of 'self-reporting' a skills gap by managers of small firms – the survey respondents. The 2015 survey also shows that businesses do not face particular difficulties in retaining management talent but it is the occupational grouping whose skills are most likely to be under-used. This finding raises important questions about whether these are the right skills for the role and what type of skills are being under-used. Are they, necessarily, management skills? The survey provides a number of further indications that improving management practice should be a priority for UK business. For example, management and leadership type skills (managing and motivating other staff, setting objectives/planning resources) accounted for over half of all skills gaps (58 per cent) identified. Indeed, the overall proportion of businesses defined as High Performance working businesses is low at 12 per cent, suggesting that there is scope for improving the business practices of a good many UK firms.

Good leadership could in particular serve to support growth among small businesses, where the presence of poor managerial practices is more common. The survey identified that among businesses with fewer than five staff, only one in eight had arranged management training in the last 12 months, while these businesses (along with those with 5 to 24 employees) were also less likely to acknowledge skills gaps among Managers. There is clearly more work to be done to ensure that small businesses have the support they need improve their managerial practices.

7.6 Skills for a productive workforce

The impacts of skills challenges (both internal and external) are numerous and varied. While some companies' short-term financial performance may be impeded, there are also potential longer-term implications for companies' productivity levels, and their ability to grow.

The government's Productivity Plan identifies innovation as a key step to encourage productivity (HM Treasury, 2015). But ESS 2015 reports that skill deficiencies impact on a business's ability to innovate. Four in ten establishments with skill-shortage vacancies reported a delay in developing new products or services and 35 per cent reported difficulties in innovating working practices. These impacts were reported less frequently for skills gaps (though were still cited by 17 per cent and 24 per cent respectively of establishments with skills gaps), perhaps reflecting the occupations in which skill-shortage vacancies and skills gaps are most likely to arise. This is further suggested by the finding that, the skills that are required to drive forward innovation within businesses often appear to be lacking: two in five of all skill-shortage vacancies and skills gaps were attributed to individuals lacking the ability to solve complex problems. Within existing staff, this was particularly apparent for those in high-skill occupations, such as Managers and Professionals. Similarly, complex numerical or statistical skills and understanding were often deemed to be lacking.

To further address the productivity challenge, it is also important for employers to fully understand and utilise the skills of their workforce. Currently the survey shows that by far the majority of staff were working in roles that were making use of their skills and qualifications. However, seven per cent of the workforce were reported as being under-utilised and this equates to two million people with excess skills and qualifications. Under-utilisation represents not only a waste of individuals' talent but also a missed opportunity for employers to increase performance and productivity, improve job satisfaction and employee well-being, and stimulate investment, enterprise and innovation (Wright and Sissons, 2012). Employers should consider whether their businesses are making the very best use of their workforce and whether there are gains to be made through redeploying people and/or restructuring jobs.

One way that employers can ensure that they nurture and leverage their talent is through ‘high performance working’ (HPW). This survey found that just over one in ten employers (12 per cent) were operating HPW practices and identified a clear benefit associated with the adoption of HPW, in that these employers were better able to fill their vacancies. However, the proportion of employers that implement HPW has not increased since 2013 and there is clearly scope for far more employers to engage with high performance working. This requires employers to better design jobs that match skills to work, to give employees the autonomy to manage their own performance and to input into decision-making, as well as a number of other practices that demonstrate a genuine commitment to unlocking staff talent.

The survey provides a wealth of data of value to: **individuals** considering career options; **education** institutions to plan provision with employers; **employers** in understanding their market, competition and their own potential; **government** at all levels in understanding their skills and labour markets. But it also raises important questions about the supply of skills and perhaps more importantly the demand for skills in the UK. Skills are an important currency in the global economy. At a micro, firm level, skill deficiencies, the loss of talent, the under-use of skills and reported barriers to skill development all present important challenges to businesses and to government. Failure to address these issues might be damaging to the firm and ultimately to the UK economy.

Appendix A: Supplementary Tables

Chapter 1: Introduction

Table A.1.1 Profile of UK establishments and employment, by country, size and sector

	Number of establishments	% of establishments	Number of staff	% of employment
UK	1,766,838	100	27,755,204	100
Country				
England	1,488,171	84	23,480,832	85
Northern Ireland	54,518	3	720,932	3
Scotland	142,947	8	2,359,794	9
Wales	81,202	5	1,193,646	4
Size				
2-4	907,944	51	2,383,318	9
5-24	668,618	38	6,681,330	24
25-49	101,082	6	3,466,793	12
50-99	50,432	3	3,462,806	12
100-249	26,900	2	4,084,666	15
250+	11,812	1	7,676,291	28
Sector				
Agriculture	97,359	6	402,468	1
Manufacturing	100,262	6	2,371,431	9
Electricity, Gas and Water	10,151	1	294,247	1
Construction	158,790	9	1,192,840	4
Wholesale and Retail	371,231	21	4,493,603	16
Hotels and Restaurants	159,893	9	1,961,417	7
Transport and Communications	128,789	7	2,230,968	8
Financial Services	38,259	2	1,004,926	4
Business Services	363,790	21	4,786,345	17
Public Administration	19,814	1	1,356,355	5
Education	58,124	3	2,607,853	9
Health and Social Work	132,505	7	3,790,957	14
Arts and Other Services	127,871	7	1,261,794	5

Source: ONS Inter-Departmental Business Register (IDBR)

Table A.1.2 Classification of UK establishments, by country, size and sector

Row percentages	*Unwtd Base:*		Private Sector	Third Sector	Public Sector	Single site	Multi-site
UK	*91,210*	%	86	9	5	67	33
Country							
England	*75,129*	%	86	9	4	67	33
Northern Ireland	*4,019*	%	78	14	7	72	28
Scotland	*6,035*	%	83	10	7	62	38
Wales	*6,027*	%	84	8	7	67	33
Size							
2-4	*20,527*	%	89	9	2	79	21
5-24	*49,584*	%	85	9	5	59	41
25-49	*11,657*	%	76	10	14	43	57
50-99	*5,836*	%	70	10	20	37	63
100-249	*2,689*	%	67	12	20	33	67
250+	*917*	%	67	9	24	23	77
Sector							
Agriculture	*3,632*	%	98	1	*	92	8
Manufacturing	*6,998*	%	99	*	*	74	26
Electricity, Gas and Water	*1,041*	%	94	3	3	67	33
Construction	*7,474*	%	100	*	*	89	11
Wholesale and Retail	*16,126*	%	92	7	*	50	50
Hotels and Restaurants	*8,920*	%	92	6	1	62	38
Transport and Communications	*8,936*	%	95	3	1	79	21
Financial Services	*2,549*	%	94	4	1	56	44
Business Services	*13,143*	%	94	5	2	72	28
Public Administration	*947*	%	20	10	68	43	57
Education	*5,515*	%	34	22	43	64	36
Health and Social Work	*8,556*	%	46	40	14	52	48
Arts and Other Services	*7,373*	%	62	28	9	69	31

'' denotes a figure larger than zero but smaller than 0.5*

Table A.1.3 Unweighted base sizes for all establishments, by country, size and sector (2011 – 2015)

	2011	2013	2015
UK	86,522	91,279	91,210
Country			
England	74,156	75,255	75,129
Northern Ireland	3,921	4,014	4,019
Scotland	2,487	6,014	6,035
Wales	5,958	5,996	6,027
Size			
2-4	17,905	19,058	20,527
5-24	47,770	51,565	49,584
25-49	10,239	10,947	11,657
50-99	5,712	5,584	5,836
100-249	3,270	2,938	2,689
250 +	1,626	1,187	917
Sector			
Agriculture	921	3,407	3,632
Manufacturing	7,838	7,560	6,998
Electricity, Gas and Water	1,406	1,148	1,041
Construction	6,576	7,202	7,474
Wholesale and Retail	15,163	17,287	16,126
Hotels and Restaurants	8,421	8,888	8,920
Transport and Communications	7,810	6,890	8,936
Financial Services	1,853	2,330	2,549
Business Services	14,297	14,011	13,143
Public Administration	1,584	942	947
Education	5,422	5,796	5,515
Health and Social Work	8,067	8,460	8,556
Arts and Other Services	7,164	7,358	7,373

Chapter 2: Recruitment and skill-shortage vacancies

Table A.2.1 Incidence, number and density of vacancies by size and sector

		% of establishments with a vacancy (incidence)	Number of vacancies	Vacancies as a % of employment (density)	Average (mean) vacancies per establishment with vacancies
	Unwtd Base	%	Rounded to nearest 100	%	
UK	*91,210*	19	927,200	3.3	2.6
Country					
England	*75,129*	20	797,400	3.4	2.6
Northern Ireland	*4,019*	13	19,700	2.7	2.5
Scotland	*6,035*	19	73,600	3.1	2.7
Wales	*6,027*	17	36,500	3.1	2.6
Size					
2-4	*20,527*	10	137,100	5.8	1.7
5-24	*49,584*	23	268,500	4.0	1.8
25-49	*11,657*	42	119,300	3.4	2.7
50-99	*5,836*	54	112,000	3.2	3.9
100-249	*2,689*	64	122,600	2.9	6.3
250+	*917*	71	167,700	2.3	17.3
Sector					
Agriculture	*3,632*	5	9,900	2.5	2.0
Manufacturing	*6,998*	19	49,400	2.0	2.4
Electricity, Gas and Water	*1,041*	21	6,000	2.1	2.6
Construction	*7,474*	12	34,800	3.0	1.9
Wholesale and Retail	*16,126*	17	129,300	2.9	2.1
Hotels and Restaurants	*8,920*	26	104,300	5.3	2.5
Transport and Communications	*8,936*	19	76,800	3.4	2.9
Financial Services	*2,549*	18	32,100	3.2	3.7
Business Services	*13,143*	19	197,500	4.1	2.8
Public Administration	*947*	31	45,800	3.4	6.7
Education	*5,515*	33	55,600	2.1	2.9
Health and Social Work	*8,556*	30	121,200	3.2	3.0
Arts and Other Services	*7,373*	22	64,600	5.1	2.4

Base: All establishments

Percentages in Column 3 are shown as a proportion of all employment.

Number of vacancies rounded to the nearest 100.

Table A.2.2 Density of vacancies by size and sector (2013 and 2015)

	Vacancies as % of employment			
	2013		2015	
	Unwtd Base:	%	*Unwtd Base*	%
UK	*91,279*	2.4	*91,210*	3.3
Size				
2-4	*19,058*	4.4	*20,527*	5.8
5-24	*51,565*	2.8	*49,584*	4.0
25-49	*10,947*	2.4	*11,657*	3.4
50-99	*5,584*	2.3	*5,836*	3.2
100-249	*2,938*	2.3	*2,689*	2.9
250+	*1,187*	1.6	*917*	2.3
Sector				
Agriculture	*3,407*	1.4	*3,632*	2.5
Manufacturing	*7,560*	1.6	*6,998*	2.0
Electricity, Gas and Water	*1,148*	2.1	*1,041*	2.1
Construction	*7,202*	1.8	*7,474*	3.0
Wholesale and Retail	*17,287*	1.9	*16,126*	2.9
Hotels and Restaurants	*8,888*	3.7	*8,920*	5.3
Transport and Communications	*6,890*	2.3	*8,936*	3.4
Financial Services	*2,330*	2.6	*2,549*	3.2
Business Services	*14,011*	3.2	*13,143*	4.1
Public Administration	*942*	2.4	*947*	3.4
Education	*5,796*	1.8	*5,515*	2.1
Health and Social Work	*8,460*	2.4	*8,556*	3.2
Arts and Other Services	*7,358*	3.7	*7,373*	5.1

Base: All establishments

Percentages are shown as a proportion of all employment.

Table A.2.3 Incidence, number and density of vacancies by occupation (2011 - 2015)

	% of establishments with vacancies who have a vacancy in occupation	Number of vacancies	Vacancies as a % of employment (density)	
	Unwtd Base:	Rounded to nearest 100	*Unwtd Base*	%
2011	*17,093*			
Managers	6	19,300	*987*	0.4
Professionals	14	81,900	*3,025*	2.6
Associate Professionals	19	96,500	*3,179*	5.3
Administrative and Clerical	16	57,300	*2,648*	1.6
Skilled Trades	14	51,900	*2,219*	2.8
Caring, Leisure and Other Services	13	70,000	*2,556*	3.0
Sales and Customer Services	14	79,300	*2,275*	2.3
Machine Operatives	6	35,600	*1,129*	1.8
Elementary occupations	15	80,500	*2,844*	2.0
TOTAL		**586,500**		**2.2**
2013	*18,959*			
Managers	6	24,000	*1,168*	0.5
Professionals	16	97,400	*3,594*	3.1
Associate Professionals	19	98,500	*3,406*	6.3
Administrative and Clerical	15	67,100	*2,760*	2.0
Skilled Trades	13	50,800	*2,600*	2.7
Caring, Leisure and Other Services	15	100,500	*3,232*	3.6
Sales and Customer Services	14	76,200	*2,578*	2.1
Machine Operatives	6	30,100	*1,197*	1.6
Elementary occupations	15	79,400	*3,171*	2.1
TOTAL		**655,000**		**2.4**
2015	*24,306*			
Managers	5	25,300	*1,335*	0.5
Professionals	14	130,100	*4,047*	3.8
Associate Professionals	18	131,100	*4,010*	7.9
Administrative and Clerical	13	89,400	*3,231*	2.6
Skilled Trades	16	87,100	*3,814*	4.5
Caring, Leisure and Other Services	15	135,600	*4,309*	4.6
Sales and Customer Services	13	97,700	*2,971*	2.8
Machine Operatives	6	60,700	*1,780*	2.6
Elementary occupations	17	130,800	*4,491*	3.5
TOTAL		**927,200**		**3.3**

Base: Column 1: all establishments with vacancies; Column 2: all establishments; Column 3: all establishments with vacancies in each occupation.

Column 4 percentages are based on all employment, rather than all establishments; figures therefore show the number of vacancies as a proportion of all employment in each occupation

Note: Vacancies are rounded to the nearest 100. Vacancy total is higher than the sum of vacancies by occupation as only six occupations per establishment were followed up.

Table A.2.4 Incidence, number and density of skill-shortage vacancies (SSVs), by country, size and sector

	% of establishments with a skill-shortage vacancy		Number of skill-shortage vacancies	% of vacancies which are SSVs	
	Unwtd Base:	%	Rounded to nearest 100	*Unwtd Base:*	%
UK	*91,210*	6	209,400	*24,306*	23
Country					
England	*75,129*	6	180,200	*20,697*	23
Northern Ireland	*4,019*	3	2,800	*713*	14
Scotland	*6,035*	6	17,700	*1,619*	24
Wales	*6,027*	6	8,800	*1,277*	24
Size					
2-4	*20,527*	3	39,400	*1,869*	29
5-24	*49,584*	7	68,600	*11,864*	26
25-49	*11,657*	11	25,100	*4,992*	21
50-99	*5,836*	13	22,400	*3,159*	20
100-249	*2,689*	17	23,900	*1,759*	20
250+	*917*	20	30,000	*663*	18
Sector					
Agriculture	*3,632*	2	2,100	*207*	22
Manufacturing	*6,998*	8	14,800	*1,605*	30
Electricity, Gas and Water	*1,041*	8	2,100	*221*	35
Construction	*7,474*	5	12,000	*1,173*	35
Wholesale and Retail	*16,126*	4	26,200	*3,753*	20
Hotels and Restaurants	*8,920*	7	19,400	*3,420*	19
Transport and Communications	*8,936*	7	23,700	*1,993*	31
Financial Services	*2,549*	4	6,600	*472*	21
Business Services	*13,143*	6	50,600	*3,859*	26
Public Administration	*947*	5	3,900	*276*	9
Education	*5,515*	8	9,100	*2,073*	16
Health and Social Work	*8,556*	7	25,600	*3,152*	21
Arts and Other Services	*7,373*	6	13,400	*2,102*	21

Base: Column 1 and 2: all establishments; Column 3: all establishments with vacancies

Percentages in Column 3 are based on all vacancies, rather than all establishments with vacancies; figures therefore show the proportion of vacancies caused by skill shortages

Notes: The number of skill-shortage vacancies has been rounded to the nearest 100

Table A.2.5 Density of skill-shortage vacancies, by country, size and sector (2011 - 2015)

	% of vacancies which are SSVs					
	2011		2013		2015	
	Unwtd Base:	%	*Unwtd Base:*	%	Unwtd Base:	%
UK	*17,093*	16	*18,959*	22	*24,306*	23
Country						
England	*14,749*	15	*15,894*	22	*20,697*	23
Northern Ireland	*520*	21	*550*	19	*713*	14
Scotland	*729*	15	*1,499*	25	*1,619*	24
Wales	*1,095*	18	*1,016*	20	*1,277*	24
Size						
2-4	*1,389*	21	*1,403*	30	*1,869*	29
5-24	*7,869*	17	*8,969*	26	*11,864*	26
25-49	*2,972*	18	*3,653*	21	*4,992*	21
50-99	*2,241*	11	*2,435*	19	*3,159*	20
100-249	*1,698*	14	*1,737*	19	*1,759*	20
250+	*924*	8	*762*	15	*663*	18
Sector						
Agriculture	*87*	26	*167*	28	*207*	22
Manufacturing	*1,460*	24	*1,369*	30	*1,605*	30
Electricity, Gas and Water	*205*	13	*185*	23	*221*	35
Construction	*575*	18	*706*	23	*1,173*	35
Wholesale and Retail	*2,549*	14	*2,983*	18	*3,753*	20
Hotels and Restaurants	*2,078*	15	*2,447*	19	*3,420*	19
Transport and Communications	*1,404*	14	*1,232*	26	*1,993*	31
Financial Services	*331*	17	*398*	10	*472*	21
Business Services	*2,945*	17	*3,147*	28	*3,859*	26
Public Administration	*402*	10	*283*	22	*276*	9
Education	*1,487*	10	*2,062*	12	*2,073*	16
Health and Social Work	*1,992*	10	*2,375*	22	*3,152*	21
Arts and Other Services	*1,578*	21	*1,605*	24	*2,102*	21

Base: all establishments with vacancies

Percentages are based on all vacancies, rather than all establishments with vacancies; figures therefore show the proportion of vacancies caused by skill shortages

Notes: The number of skill-shortage vacancies has been rounded to the nearest 100

Table A.2.6 Density of skill-shortage vacancies by occupation and sector

	Managers	Professionals	Associate Professionals	Administrative / Clerical staff	Skilled Trades occupations	Caring, Leisure and Other Services	Sales and Customer Services	Machine Operatives	Elementary staff
UK	17	32	22	11	43	20	16	32	14
Agriculture	**	**	**	**	32	**	**	32	14
Manufacturing	28	39	25	12	52	**	14	23	13
Electricity, Gas and Water	**	67	42	20	46	**	**	35	*11*
Construction	23	36	37	11	38	**	25	47	32
Wholesale and Retail	18	19	32	20	51	**	14	23	12
Hotels and Restaurants	24	**	10	14	37	15	6	14	15
Transport and Communications	15	37	24	9	44	6	41	50	7
Financial Services	6	15	41	9	**	**	14	**	**
Business Services	14	37	23	13	53	19	21	26	9
Public Administration	**	10	3	5	**	14	**	**	7
Education	6	18	14	4	14	21	**	**	12
Health and Social Work	14	38	17	8	11	19	12	29	10
Arts and Other Services	14	20	11	14	42	24	6	52	18

Base: All establishments with vacancies within each occupation by sector

Densities are based on skill-shortage vacancies as a proportion of all vacancies within each occupation by sector, rather than the number of establishments with vacancies.

*'**' Figure not shown because of a low base (fewer than 25 establishments with vacancies)*

Where base between 25 and 49 establishments with vacancies, figures are shown in italics

X = *density 30% or above*

X = *density between 15% and 29%*

X = *density between 1% and 14%*

Table A.2.6a Unweighted base sizes for previous table (Table A.2.6)

	Managers	Professionals	Associate Professionals	Administrative / Clerical staff	Skilled Trades occupations	Caring, Leisure and Other Services	Sales and Customer Services	Machine Operatives	Elementary staff
UK	1,335	4,047	4,010	3,231	3,814	4,309	2,971	1,780	4,491
Agriculture	**	**	**	**	40	**	**	34	102
Manufacturing	114	175	336	206	573	**	134	407	147
Electricity, Gas and Water	**	27	36	47	41	**	**	63	42
Construction	73	139	178	145	563	**	41	125	135
Wholesale and Retail	251	101	362	299	562	**	2,048	305	441
Hotels and Restaurants	233	**	73	212	1,044	210	84	119	2,446
Transport and Communications	65	457	490	298	267	30	195	434	135
Financial Services	35	42	153	247	**	**	78	**	**
Business Services	176	1,066	1,310	812	440	154	218	211	359
Public Administration	**	68	105	92	**	57	**	**	32
Education	36	1,031	227	202	46	857	**	**	196
Health and Social Work	177	793	352	300	118	1,912	40	36	198
Arts and Other Services	134	138	379	363	108	1,048	99	29	254

*'**' Corresponds with the double asterisks shown in Table A.2.6 (base is fewer than 25 establishments with vacancies)*

Table A.2.7 Skills lacking among applicants, overall and by country (prompted)

	UK	England	Northern Ireland	Scotland	Wales
Unweighted Base	*3,244*	*2,750*	*78*	*200*	*216*
	%	%	%	%	%
Technical or practical skills					
Specialist skills or knowledge	64	63	41	72	68
Solving complex problems	39	39	34	31	43
Knowledge of products and services offered	37	37	35	37	40
Knowledge of how the organisation works	31	30	40	35	41
Complex numerical/statistical skills	29	29	33	31	27
Reading/understanding instructions, reports etc.	26	27	20	23	31
Writing instructions, reports etc.	25	25	14	18	35
Basic numerical skills	24	25	31	16	32
Computer literacy / basic IT skills	22	23	21	17	18
Advanced or specialist IT skills	22	23	9	16	15
Adapting to new equipment or materials	20	19	25	19	31
Manual dexterity	15	15	13	16	24
Communicating in a foreign language	15	15	12	16	14
Oral Welsh language skills *(Wales only base)*	1	n/a	n/a	n/a	13
Written Welsh language skills *(Wales only base)*	*	n/a	n/a	n/a	12
None of the above	7	7	9	6	8
People and personal skills					
Ability to manage own time and prioritise tasks	47	46	46	47	57
Customer handling skills	39	38	41	41	47
Team working	33	33	36	36	45
Managing own feelings / handling those of others	32	31	32	39	41
Persuading or influencing others	31	30	33	38	32
Managing or motivating other staff	30	29	40	35	40
Sales skills	25	24	38	28	32
Instructing, teaching or training people	22	21	13	25	27
Setting objectives for others / planning resources	21	21	24	24	27
Making speeches or presentations	16	17	13	15	18
None of the above	25	26	17	15	15

Base: All establishments with skill-shortage vacancies in each occupation – up to two occupations followed up

Percentages are based on all skill-shortage vacancies, rather than all establishments with skill-shortage vacancies; proportions therefore show the percentage of skill-shortage vacancies within each occupation caused by lack of each skill.

Table A.2.8 Technical and practical skills lacking among applicants, overall and by occupation (prompted)

	Overall	Managers	Professionals	Associate Professionals	Administrative / Clerical staff	Skilled Trades occupations	Caring, Leisure and Other Services	Sales and Customer Services	Machine Operatives	Elementary staff
Unweighted Base	*3,244*	*131*	*619*	*474*	*209*	*777*	*459*	*226*	*280*	*315*
	%	%	%	%	%	%	%	%	%	%
Specialist skills or knowledge	64	77	72	73	59	66	63	54	57	58
Solving complex problems	39	52	33	48	42	43	32	45	35	36
Knowledge of products and services offered	37	58	30	41	50	36	33	48	26	45
Knowledge of how the organisation works	31	56	19	33	38	28	36	47	25	44
Complex numerical/statistical skills	29	24	23	36	39	30	24	28	21	30
Reading/understanding instructions, reports etc.	26	23	13	18	40	32	35	31	31	37
Writing instructions, reports etc.	25	16	22	20	33	27	36	26	19	22
Basic numerical skills	24	16	12	17	27	25	31	38	25	38
Computer literacy / basic IT skills	22	23	16	24	31	16	23	27	21	19
Advanced or specialist IT skills	22	21	34	42	36	16	12	12	8	9
Adapting to new equipment or materials	20	19	16	14	19	29	13	24	21	27
Manual dexterity	15	12	6	5	8	33	9	13	19	27
Communicating in a foreign language	15	17	11	14	8	12	21	17	14	23
Oral Welsh language skills *(Wales only base)*	1	1	*	*	2	*	1	*	1	1
Written Welsh language skills *(Wales only base)*	*	1	*	*	2	*	1	*	1	1
None of the above	7	2	7	6	4	6	10	4	6	10

Base: All establishments with skill-shortage vacancies in each occupation – up to two occupations followed up

Percentages are based on all skill-shortage vacancies, rather than all establishments with skill-shortage vacancies; proportions therefore show the percentage of skill-shortage vacancies within each occupation caused by lack of each skill.

Note: Column percentages exceed 100 per cent because of multiple responses; skill-shortage vacancies unable to be coded to an occupational group have been included in the "Overall" figures, though have not been included in the more detailed breakdown.

Table A.2.9 People and personal skills lacking among applicants, overall and by occupation (prompted)

	Overall	Managers	Professionals	Associate Professionals	Administrative / Clerical staff	Skilled Trades occupations	Caring, Leisure and Other Services	Sales and Customer Services	Machine Operatives	Elementary staff
Unweighted Base	*3,244*	*131*	*619*	*474*	*209*	*777*	*459*	*226*	*280*	*315*
	%	%	%	%	%	%	%	%	%	%
Ability to manage own time and prioritise tasks	47	52	31	43	53	48	53	54	40	64
Customer handling skills	39	50	29	35	49	27	44	72	35	54
Team working	33	38	14	25	38	35	46	37	33	51
Managing own feelings / handling those of others	32	39	16	26	35	31	42	42	28	48
Persuading or influencing others	31	48	21	46	30	24	30	52	18	39
Managing or motivating other staff	30	56	27	23	29	30	37	36	21	40
Sales skills	25	30	16	34	30	13	16	60	16	30
Instructing, teaching or training people	22	43	19	22	19	24	25	19	16	27
Setting objectives for others / planning resources	21	50	20	22	19	23	25	22	10	25
Making speeches or presentations	16	25	15	27	16	11	19	17	9	17
None of the above	25	18	34	26	18	28	21	8	35	13

Base: All establishments with skill-shortage vacancies in each occupation – up to two occupations followed up

Percentages are based on all skill-shortage vacancies, rather than all establishments with skill-shortage vacancies; proportions therefore show the percentage of skill-shortage vacancies within each occupation caused by lack of each skill.

Note: Column percentages exceed 100 per cent because of multiple responses; skill-shortage vacancies unable to be coded to an occupational group have been included in the "Overall" figures, though have not been included in the more detailed breakdown.

Table A.2.10 Technical or practical skills lacking among applicants, by sector (prompted)

	Overall	Agriculture	Manufacturing	Electricity, Gas & Water	Construction	Wholesale & Retail	Hotels & Restaurants	Transport & Comms	Financial Services	Business Services	Public Admin.	Education	Health & Social Work	Arts & Other Services
Unweighted Base	*3,224*	*30*	*282*	*44*	*233*	*413*	*398*	*339*	*43*	*608*	*24*	*230*	*375*	*225*
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Specialist skills or knowledge	64	*76*	67	*43*	64	59	61	67	*93*	63	**	61	69	54
Solving complex problems	39	*60*	43	*66*	48	41	32	51	*14*	46	**	17	29	30
Knowledge of products and services	37	*51*	40	*52*	42	48	41	40	*60*	33	**	24	26	29
Knowledge of how your organisation works	31	*58*	28	*14*	32	39	39	29	*54*	24	**	24	28	32
More complex numerical or statistical skills	29	*43*	31	*27*	31	25	32	30	*42*	39	**	13	26	16
Reading and understanding instructions etc.	26	*33*	27	*53*	36	22	38	32	*16*	22	**	15	27	21
Writing instructions, guidelines etc.	25	*31*	24	*45*	35	20	28	32	*13*	20	**	17	33	18
Basic numerical skills and understanding	24	*51*	24	*49*	33	21	31	29	*8*	20	**	12	27	23
Computer literacy / basic IT skills	22	*17*	15	*17*	17	23	18	24	*29*	26	**	18	25	16
Advanced or specialist IT skills	22	*9*	22	*10*	16	18	10	36	*60*	28	**	21	16	9
Adapting to new equipment or materials	20	*60*	25	*36*	21	24	23	18	*11*	20	**	6	15	14
Manual dexterity	15	*45*	30	*14*	29	22	19	13	*4*	11	**	11	5	11
Communicating in a foreign language	15	*16*	11	*13*	15	16	28	12	*18*	8	**	9	21	11
Oral Welsh language skills *(Wales only base)*	1	-	*	-	*	1	1	*	*	1	**	1	*	1
Written Welsh language skills *(Wales only base)*	*	-	*	-	*	*	1	*	*	*	**	1	*	2
None of the above	7	*9*	8	*5*	10	5	10	4	*2*	5	**	10	7	9

*Base: All establishments with skill-shortage vacancies – up to two occupations followed up. '**' Figure not shown because of a low base (fewer than 25 establishments with vacancies). Where base between 25 and 49 establishments with vacancies, figures are shown in italics. Percentages are based on all skill-shortage vacancies, rather than all establishments with skill-shortage vacancies; proportions therefore show the percentage of skill-shortage vacancies within each sector caused by lack of each skill.*

Table A.2.11 People and personal skills lacking among applicants, by sector (prompted)

	Overall	Agriculture	Manufacturing	Electricity, Gas & Water	Construction	Wholesale & Retail	Hotels & Restaurants	Transport & Comms	Financial Services	Business Services	Public Admin.	Education	Health & Social Work	Arts & Other Services
Unweighted Base	*3,224*	*30*	*282*	*44*	*233*	*413*	*398*	*339*	*43*	*608*	*24*	*230*	*375*	*225*
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Ability to manage own time and prioritise own tasks	47	*74*	42	*54*	51	50	58	45	*35*	46	**	33	50	42
Customer handling skills	39	*17*	29	*47*	36	49	44	50	*23*	37	**	21	29	54
Team working	33	*36*	34	*44*	33	31	47	34	*14*	32	**	29	31	32
Managing their own feelings, or handling the feelings of others	32	*21*	40	*14*	32	30	52	29	*19*	30	**	28	33	26
Persuading or influencing others	31	*19*	33	*25*	31	30	38	37	*50*	31	**	21	23	27
Managing or motivating other staff	30	*27*	31	*8*	29	29	43	30	*9*	28	**	30	35	24
Sales skills	25	*20*	22	*11*	18	42	25	26	*24*	31	**	*7*	13	20
Instructing, teaching or training people	22	*11*	20	*12*	26	18	31	22	*10*	20	**	27	24	18
Setting objectives for others	21	*16*	19	*20*	26	20	32	21	*2*	20	**	21	29	13
Making speeches or presentations	16	*3*	15	*19*	11	13	14	17	*42*	19	**	15	18	12
None of the above	25	*11*	30	*25*	23	22	18	20	*25*	28	**	39	25	21

*Base: All establishments with skill-shortage vacancies – up to two occupations followed up. '**' Figure not shown because of a low base (fewer than 25 establishments with vacancies). Where base between 25 and 49 establishments with vacancies, figures are shown in italics. Percentages are based on all skill-shortage vacancies, rather than all establishments with skill-shortage vacancies; proportions therefore show the percentage of skill-shortage vacancies within each sector caused by lack of each skill.*

Table A.2.12 Skills lacking among applicants, 'old' skills descriptor time series comparisons

	2011	2013	2015
Unweighted Base	*3,955* %	*4,869* %	*3,587* %
Technical, practical or job-specific	46	63	66
Planning and organisation	40	41	36
Team working	31	33	30
Customer handling	39	40	36
Problem solving	36	37	33
Oral communication	37	41	34
Written communication	33	38	32
Basic computer literacy / using IT	15	16	18
Strategic Management	28	30	28
Literacy	28	34	28
Advanced IT or software	20	22	22
Numeracy	24	26	24
Foreign language	16	17	15
Oral Welsh language skills *(Wales only base)*	2	*	1
Written Welsh language skills *(Wales only base)*	2	1	1
None of the above	8	4	7

Base: All establishments with skill-shortage vacancies in each occupation – up to two occupations followed up. Percentages are based on all skill-shortage vacancies, rather than all establishments with skill-shortage vacancies; proportions therefore show the percentage of skill-shortage vacancies within each sector caused by lack of each skill. '' denotes a figure greater than zero but smaller than 0.5.*

Table A.2.12a Skills lacking among applicants, 'old' skills descriptor nation comparisons

	UK	England	Northern Ireland	Scotland	Wales
Unweighted Base	*3,587* %	*3,051* %	*94* %	*253* %	*189* %
Technical, practical or job-specific	66	68	57	57	61
Planning and organisation	36	36	42	29	50
Team working	30	30	44	29	35
Customer handling	36	37	43	30	43
Problem solving	33	32	54	28	40
Oral communication	34	34	34	31	38
Written communication	32	32	34	29	31
Basic computer literacy / using IT	18	18	24	10	29
Strategic Management	28	28	46	21	31
Literacy	28	28	31	28	25
Advanced IT or software	22	23	30	12	22
Numeracy	24	25	29	17	24
Foreign language	15	15	14	15	16
Oral Welsh language skills *(Wales base only)*	1	n/a	n/a	n/a	16
Written Welsh language skills *(Wales base only)*	1	n/a	n/a	n/a	15
None of the above	7	6	7	12	9

Base: All establishments with skill-shortage vacancies in each occupation – up to two occupations followed up

Percentages are based on all skills gaps, rather than all establishments with skills gaps; proportions therefore show the percentage of skills gaps attributed to each skill.

Table A.2.13 Proportion of Construction employers that reported a loss of business to competitors as an impact of skill-shortage vacancies, by size

Row percentages	*Unwtd Base*		Lose business or orders to competitors
Size			
2-4	*87*	%	61
5-24	*267*	%	51
25-49	*52*	%	46
50-99	*31*	%	*59*
100-249	*7*	%	**
250+	*2*	%	**

Base: All Construction establishments where hard-to-fill vacancies were caused by skill shortages
*"**" denotes figure not shown because of a low base (fewer than 25 respondents); Figures in italics show base is below 50 and figures should be treated with caution.*

Table A.2.14 Most common impacts of skill-shortage vacancies (prompted), by country, size and sector

			Prompted impacts							
Row percentages	*Unwtd Base*		Any impact	Increase workload for other staff	Have difficulties meeting customer services objectives	Lose business or orders to competitors	Experience increased operating costs	Delay developing new products or services	Have difficulties meeting quality standards	Have difficulties introducing new working practices
UK	*6,469*	%	94	84	49	43	42	40	35	35
Country										
England	*5,495*	%	94	84	49	42	42	40	35	34
Northern Ireland	*162*	%	92	83	43	38	47	34	40	42
Scotland	*432*	%	95	84	48	45	43	40	37	36
Wales	*380*	%	97	84	57	49	46	44	36	40
Size										
2-4	*619*	%	95	81	51	54	38	46	35	38
5-24	*3,363*	%	94	84	49	42	41	40	34	34
25-49	*1,202*	%	95	88	48	33	46	35	36	31
50-99	*707*	%	95	86	47	32	53	31	37	33
100-249	*413*	%	95	85	45	21	56	33	41	32
250+	*165*	%	94	89	43	25	60	28	33	43
Sector										
Agriculture	*65*	%	98	92	18	25	51	28	33	42
Manufacturing	*594*	%	95	87	56	44	48	45	30	36
Electricity, Gas & Water	*75*	%	97	86	53	39	45	32	18	24
Construction	*446*	%	96	83	52	56	50	44	35	38
Wholesale & Retail	*811*	%	94	83	53	46	37	34	34	30
Hotels & Restaurants	*753*	%	93	85	52	41	41	37	45	40
Transport & Comms.	*690*	%	95	86	53	46	48	52	34	33
Financial Services	*106*	%	96	88	43	37	30	42	36	47
Business Services	*1,232*	%	95	83	51	49	39	43	32	32
Public Administration	*40*	%	94	85	36	24	41	34	35	37
Education	*456*	%	95	88	37	24	51	39	45	34
Health & Social Work	*752*	%	93	83	37	22	49	33	33	43
Arts and Other Services	*449*	%	93	79	49	48	35	43	41	32

Base: All establishments with hard-to-fill vacancies that were all as a result of skill shortages

Table A.2.15 Profile of hard-to-fill vacancies, by country, size and sector

	Unwtd base	Total number of hard-to-fill vacancies	% of vacancies hard-to-fill	Average number of hard-to-fill vacancies for those with hard-to-fill vacancies	Average number of hard-to-fill vacancies for those with vacancies
			%		
UK	*24,306*	303,200	33	2.2	0.9
Country					
England	*20,697*	262,300	33	2.3	0.9
Northern Ireland	*713*	4,200	21	1.7	0.6
Scotland	*1,619*	24,600	34	2.2	0.9
Wales	*1,277*	12,100	33	2.1	0.9
Size					
2-4	*1,869*	59,700	44	1.6	0.7
5-24	*11,864*	101,500	38	1.7	0.7
25-49	*4,992*	36,200	30	2.3	0.8
50-99	*3,159*	33,500	30	3.5	1.2
100-249	*1,759*	33,700	28	5.3	1.8
250+	*663*	38,600	23	12.2	4.1
Sector					
Agriculture	*207*	3,000	30	1.3	0.6
Manufacturing	*1,605*	17,500	36	1.9	0.9
Electricity, Gas and Water	*221*	2,300	39	2.6	1.1
Construction	*1,173*	15,000	43	1.8	0.8
Wholesale and Retail	*3,753*	38,200	30	1.8	0.6
Hotels and Restaurants	*3,420*	34,000	33	2.1	0.8
Transport and Communications	*1,993*	28,200	37	2.5	1.1
Financial Services	*472*	7,400	23	3.7	1.0
Business Services	*3,859*	65,300	33	2.3	1.0
Public Administration	*276*	12,300	27	5.7	1.8
Education	*2,073*	12,700	23	2.0	0.7
Health and Social Work	*3,152*	42,900	35	2.8	1.1
Arts and Other Services	*2,102*	25,400	39	2.4	0.9

Base: All establishments with vacancies

Notes: The number of hard-to-fill vacancies has been rounded to the nearest 100

Table A.2.16 Main causes of hard-to-fill vacancies

		Country				Size Band					
	UK	England	Northern Ireland	Scotland	Wales	2-4	5-24	25-49	50-99	100-249	250+
	%	%	%	%	%	%	%	%	%	%	%
Unweighted Base	*9,223*	*7,857*	*228*	*612*	*526*	*869*	*4,733*	*1,735*	*1,085*	*585*	*216*
Low number of applicants with the required skills	37	37	40	38	40	38	36	36	33	42	41
Not enough people interested in doing this type of job	20	20	19	18	24	22	21	20	25	16	15
Low number of applicants generally	18	19	10	13	19	20	18	19	23	16	13
Lack of work experience the company demands	16	16	9	14	19	18	15	14	14	14	16
Poor terms and conditions (e.g. pay) offered for post	13	13	16	15	10	8	12	15	16	19	16
Low number of applicants with the required attitude, motivation or personality	13	13	8	12	16	15	14	14	11	8	10
Lack of qualifications the company demands	12	12	11	15	16	13	11	13	13	10	15
Remote location/poor public transport	11	10	4	19	8	9	10	12	12	10	14
Too much competition from other employers	10	10	14	12	6	10	7	10	14	10	15
Job entails shift work/unsociable hours	9	9	3	10	9	10	11	11	8	9	5

Base: All establishments with hard-to-fill vacancies

Percentages are based on all hard-to-fill vacancies.

Reasons mentioned in more than one per cent of cases shown.

Table A.2.17 Number and density of 'other' non-skills-related hard-to-fill vacancies by country, size and sector

		Number of 'other' hard-to-fill vacancies	% of vacancies that are hard-to-fill for 'other' non-skills related reasons
Row percentages	*Unwtd Base*	Rounded to nearest 100	%
UK	*9,223*	93,800	10
Country			
England	*7,857*	82,200	10
Northern Ireland	*228*	1,400	7
Scotland	*612*	6,900	9
Wales	*526*	3,300	9
Size			
2-4	*869*	20,300	15
5-24	*4,733*	32,900	12
25-49	*1,735*	11,100	9
50-99	*1,085*	11,100	10
100-249	*585*	9,800	8
250+	*216*	8,500	5
Sector			
Agriculture	*98*	900	9
Manufacturing	*742*	2,700	6
Electricity, Gas and Water	*86*	200	4
Construction	*552*	3,000	9
Wholesale and Retail	*1,154*	12,000	9
Hotels and Restaurants	*1,288*	14,600	14
Transport and Communications	*887*	4,500	6
Financial Services	*133*	700	2
Business Services	*1,534*	14,700	7
Public Administration	*78*	8,400	18
Education	*666*	3,600	6
Health and Social Work	*1,242*	16,300	13
Arts and Other Services	*763*	12,000	19

Base: Establishments with vacancies.

Percentages are based on all vacancies, rather than all establishments with vacancies; proportions therefore show the percentage of vacancies that are hard-to-fill for non-skills related reasons

*'**' denotes figure not shown because of a low base (fewer than 25 respondents)*

Table A.2.18 Density of 'other' non-skills-related hard-to-fill vacancies by occupation (2013 and 2015)

	% of vacancies in each occupations that are hard-to-fill for 'other' non-skills related reasons			
	2013		2015	
	Unwtd Base:	%	Unwtd Base:	%
Managers	*1,168*	5	*1,335*	6
Professionals	*3,594*	5	*4,047*	8
Associate Professionals	*3,406*	5	*4,010*	8
Administrative and Clerical	*2,760*	3	*3,231*	5
Skilled Trades	*2,600*	8	*3,814*	10
Caring, Leisure and Other Services	*3,232*	9	*4,309*	19
Sales and Customer Services	*2,578*	6	*2,971*	7
Machine Operatives	*1,197*	11	*1,780*	10
Elementary occupations	*3,171*	10	*4,717*	12

Base: All establishments

Percentages are shown as a proportion of all employment.

Table A.2.19 Incidence of retention difficulties by size and sector (2011 and 2015)*

Row percentages	% of establishments reporting retention issues					
	2011 (excluding Scotland)		2015 (excluding Scotland)		2015	
	Unwtd Base	*%*	*Unwtd Base*	*%*	*Unwtd Base*	*%*
Overall	*85,069*	5	*42,787*	8	*45,818*	8
Size						
2-4	*18,642*	4	*9,697*	5	*10,339*	5
5-24	*46,875*	7	*23,313*	10	*24,835*	10
25-49	*15,136*	9	*5,451*	15	*5,907*	15
50-99	*2,947*	12	*2,707*	18	*2,950*	19
100-249	*1,469*	17	*1,208*	22	*1,332*	22
250+	*18,642*	4	*411*	30	*455*	30
Sector						
Agriculture	*850*	5	*1,590*	7	*1,853*	7
Manufacturing	*7,690*	5	*3,269*	8	*3,477*	9
Electricity, Gas and Water	*1,344*	4	*438*	10	*514*	10
Construction	*6,423*	3	*3,471*	7	*3,713*	6
Wholesale and Retail	*15,022*	4	*7,697*	6	*8,164*	6
Hotels and Restaurants	*8,251*	10	*4,229*	15	*4,530*	14
Transport and Communications	*7,660*	5	*4,213*	8	*4,501*	9
Financial Services	*1,790*	4	*1,162*	6	*1,268*	6
Business Services	*14,142*	4	*6,229*	7	*6,629*	7
Public Administration	*1,480*	7	*402*	12	*459*	13
Education	*5,275*	5	*2,635*	11	*2,808*	11
Health and Social Work	*7,953*	7	*3,908*	11	*4,189*	11
Arts and Other Services	*7,189*	7	*3,499*	10	*3713*	10

Base: 2011 – All establishments in England, NI and Wales; 2015 – All establishments in Module 2.

**Note: retention difficulties were last covered by the Employer Skills Survey in 2011. For that survey, due to differing policy priorities and constraints on the length of the questionnaire, employers in Scotland were not asked to describe their experience of retention difficulties. As such, no Scotland or UK-wide data is available for time series comparisons.*

Table A.2.20 Incidence of retention difficulties for each occupation by sector

	Unwtd Base	Managers	Professionals	Associate Professionals	Administrative / Clerical staff	Skilled Trades occupations	Caring, Leisure and Other Services	Sales and Customer Services	Machine Operatives	Elementary staff
UK	*4,924*	2	11	10	4	21	13	9	8	20
Agriculture	*127*	1	-	1	1	12	4	-	9	70
Manufacturing	*343*	2	6	12	2	40	-	3	25	10
Electricity, Gas and Water	*50*	1	7	8	3	19	-	10	37	14
Construction	*279*	2	3	5	4	53	-	3	10	19
Wholesale and Retail	*685*	6	1	6	1	23	1	38	12	11
Hotels and Restaurants	*846*	1	*	*	1	40	4	2	1	51
Transport and Communications	*470*	2	13	13	7	15	*	10	32	6
Financial Services	*70*	6	5	15	33	1	3	27	-	7
Business Services	*624*	2	19	25	8	15	4	6	5	15
Public Administration	*53*	2	29	18	8	5	27	3	1	5
Education	*353*	*	50	9	1	1	20	-	*	18
Health and Social Work	*572*	2	29	4	4	1	53	1	1	6
Arts and Other Services	*452*	1	3	10	7	7	56	2	2	11

Base: All establishments with difficulties retaining staff (Module 2); *'*' denotes a figure greater than zero but smaller than 0.5. '-' denotes a figure of zero.*

Chapter 3: The Internal Skills Challenge

Table A.3.1 Incidence, number and density of skills gaps, by size and sector (2011-2015)

	2011			2013			2015		
Row percentages	% of establishments with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff reported as having skills gaps	% of establishments with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff reported as having skills gaps	% of establishments with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff reported as having skills gaps
UK	17	1,485,500	5.5	15	1,409,900	5.2	14	1,380,200	5.0
Size									
2-4	8	85,600	3.6	7	69,900	2.9	6	62,100	2.6
5-24	23	352,800	5.5	21	315,600	4.9	19	287,000	4.3
25-49	35	185,200	5.5	32	169,500	5.1	30	158,000	4.5
50-99	39	186,900	5.5	36	178,100	5.2	33	155,700	4.5
100-249	44	235,800	5.8	44	221,100	5.5	39	216,900	5.1
250 +	47	439,100	6.0	48	455,700	6.2	43	500,400	6.7
Sector									
Agriculture	11	17,200	4.6	9	16,700	4.4	7	11,800	2.9
Manufacturing	20	146,900	5.9	17	138,800	5.9	19	173,400	7.2
Electricity, Gas and Water	19	15,400	5.6	18	14,400	5.1	14	13,900	4.9
Construction	13	64,900	4.8	11	59,100	4.7	10	44,500	3.8
Wholesale and Retail	19	293,500	6.6	17	254,400	5.8	16	242,200	5.4
Hotels and Restaurants	23	155,600	9.0	21	159,400	8.9	19	140,100	7.2
Transport and Communications	15	99,300	4.6	13	94,500	4.4	12	108,900	4.9
Financial Services	21	46,000	4.4	19	83,800	8.1	16	36,400	3.7
Business Services	13	220,900	5.1	13	224,100	5.0	12	249,300	5.2
Public Administration	23	83,000	5.3	20	69,000	4.8	23	86,000	6.4
Education	22	94,900	3.8	18	97,700	3.8	19	103,700	4.0
Health and Social Work	20	180,200	5.2	19	143,600	4.0	15	122,700	3.2
Arts and Other Services	16	67,800	5.6	14	54,200	4.4	12	47,400	3.8

Note: The number of employees not fully proficient has been rounded to the nearest 100.

Percentages are based on all employment, rather than all establishments; proportions therefore show the percentage of staff with a skills gap. See Table A.1.3 in Annex A for base sizes.

Table A.3.2 Density of skills gaps by sector within nation (2013-2015)

	England		Northern Ireland		Scotland		Wales	
	2013	2015	2013	2015	2013	2015	2013	2015
	%	%	%	%	%	%	%	%
All sectors	**5.1**	**5.0**	**5.2**	**3.3**	**5.9**	**5.0**	**5.8**	**4.5**
Agriculture	4.1	3.0	6.6	2.8	5.5	2.6	2.9	2.3
Manufacturing	5.4	6.8	5.9	4.2	7.9	10.5	10.2	8.8
Electricity, Gas and Water	5.4	5.4	*4.3*	*0.8*	4.8	2.1	1.8	4.7
Construction	4.8	3.7	4.6	2.8	3.9	4.3	4.6	4.8
Wholesale and Retail	5.7	5.4	6.6	5.7	5.9	5.5	5.2	3.6
Hotels and Restaurants	8.8	7.2	8.0	6.1	9.0	7.2	10.2	6.9
Transport and Communications	4.4	5.0	2.7	2.2	5.8	4.7	3.9	3.7
Financial Services	8.9	3.6	2.3	1.9	1.7	4.3	5.2	4.2
Business Services	5.1	5.2	3.4	2.2	5.0	5.2	4.4	6.3
Public Administration	5.1	7.6	4.2	*0.2*	4.2	2.1	1.8	1.8
Education	3.6	4.0	1.8	1.3	6.3	5.3	5.3	2.4
Health and Social Work	3.4	3.3	7.2	3.3	6.5	2.7	6.6	3.5
Arts and Other Services	4.4	3.8	4.2	2.9	5.2	3.9	4.0	3.8

Base: All establishments

Densities are based on skills gaps as a proportion of all employment within each occupation by sector, rather than the number of establishments with skills gaps.

Where base between 25 and 49 establishments, figures are shown in italics

Table A.3.2a Unweighted base sizes for previous table (Table 3.2)

	England		Northern Ireland		Scotland		Wales	
	2013	2015	2013	2015	2013	2015	2013	2015
All sectors	**75,255**	**75,129**	**4,014**	**4,019**	**6,014**	**6,035**	**5,996**	**6,027**
Agriculture	2,263	2,651	133	84	519	492	492	405
Manufacturing	6,389	5,821	327	339	430	411	414	427
Electricity, Gas and Water	935	880	43	29	86	70	84	62
Construction	5,980	6,334	259	246	496	489	467	405
Wholesale and Retail	14,321	13,126	866	859	991	938	1,109	1,203
Hotels and Restaurants	7,314	7,274	385	415	571	582	618	649
Transport and Communications	5,743	7,538	282	289	446	583	419	526
Financial Services	1,886	2,121	112	93	205	227	127	108
Business Services	12,000	11,158	491	507	784	763	736	715
Public Administration	696	721	55	49	124	102	67	75
Education	4,756	4,549	292	267	354	338	394	361
Health and Social Work	6,882	6,963	408	382	568	594	602	617
Arts and Other Services	6,090	5,993	361	460	440	446	467	474

Table A.3.3 Proportion of each occupation lacking full proficiency within country

	UK	England	Northern Ireland	Scotland	Wales
	%	%	%	%	%
Managers	2.7	2.8	1.2	1.9	2.2
Professionals	3.0	3.0	*1.2*	3.4	3.0
Associate Professionals	5.3	5.5	*2.1*	4.6	4.9
Administrative / Clerical staff	5.4	5.6	1.9	4.8	3.5
Skilled Trades occupations	5.5	5.3	4.1	7.4	5.5
Caring, Leisure and Other Services	4.1	4.1	*4.6*	3.5	5.0
Sales and Customer Services	6.5	6.6	4.6	6.8	5.2
Machine Operatives	7.0	6.8	6.3	8.7	7.4
Elementary staff	6.9	7.1	4.4	6.3	5.8

Base: All establishments with staff in each occupation

Percentages are based on all employment, rather than all establishments; proportions therefore show the percentage of staff with a skills gap.

Where base between 25 and 49 establishments with gaps, figures are shown in italics

Table A.3.3a Unweighted base sizes for previous table (Table A.3.3)

	UK	England	Northern Ireland	Scotland	Wales
Managers	3,492	2,960	94	237	201
Professionals	1,518	1,281	42	129	66
Associate Professionals	1,473	1,262	28	110	73
Administrative / Clerical staff	4,301	3,627	117	333	224
Skilled Trades occupations	3,142	2,639	66	242	195
Caring, Leisure and Other Services	2,308	1,994	46	133	135
Sales and Customer Services	4,540	3,804	163	292	281
Machine Operatives	1,813	1,499	71	141	102
Elementary staff	4,533	3,791	129	353	260

Table A.3.4 Density of skills gaps by occupation and sector

	Managers	Professionals	Associate Professionals	Administrative and Clerical	Skilled Trades	Caring, Leisure and Other Services	Sales and Customer Service	Machine Operatives	Elementary occupations
UK	2.7	3.0	5.3	5.4	5.5	4.1	6.5	7.0	6.9
Agriculture	1.1	**	**	**	*4.3*	**	**	*4.4*	4.7
Manufacturing	4.0	4.4	5.5	4.9	7.1	**	7.9	10.5	5.8
Electricity, Gas and Water	*2.6*	**	**	*2.9*	*4.1*	**	**	6.3	*3.2*
Construction	1.3	*3.5*	6.0	3.2	5.6	**	3.5	5.0	5.6
Wholesale and Retail	2.7	2.6	4.8	4.5	5.6	**	6.3	5.4	7.0
Hotels and Restaurants	2.9	**	11.5	5.1	5.9	5.0	8.5	9.7	8.8
Transport and Communications	3.7	3.5	4.6	7.1	6.7	**	6.4	4.5	4.2
Financial Services	1.9	**	*3.1*	5.7	**	**	5.1	**	**
Business Services	1.9	3.0	6.8	4.6	5.8	13.4	7.8	6.0	10.6
Public Administration	*6.8*	*3.1*	*6.7*	9.9	**	**	**	**	*5.9*
Education	2.6	4.0	5.1	4.8	4.0	3.4	6.6	**	4.5
Health and Social Work	3.3	1.4	2.8	4.8	1.4	3.7	5.1	**	2.5
Arts and Other Services	1.7	2.0	2.9	4.4	3.9	4.3	3.7	*1.9*	6.2

Base: All establishments employing each occupation by sector

Densities are based on skills gaps as a proportion of all employment within each occupation by sector, rather than the number of establishments with skills gaps.

*'**' Figure not shown because of a low base (fewer than 25 establishments employing occupation)*

Where base between 25 and 49 establishments with gaps, figures are shown in italics

X = *density 9% or above*

X = *density between 5% and 8%*

X = *density between 1% and 4%*

Table A.3.4a Unweighted base sizes for previous table (Table A.3.4)

	Managers	Professionals	Associate Professionals	Administrative / Clerical staff	Skilled Trades occupations	Caring, Leisure and Other Services	Sales and Customer Services	Machine Operatives	Elementary staff
UK	3,492	1,518	1,473	4,301	3,142	2,308	4,540	1,813	4,533
Agriculture	64	**	**	**	44	**	**	40	142
Manufacturing	342	95	178	423	557	**	305	653	286
Electricity, Gas and Water	37	**	**	44	39	**	**	51	41
Construction	195	35	67	253	576	**	74	115	170
Wholesale and Retail	815	62	138	559	445	**	2,312	355	665
Hotels and Restaurants	601	**	32	198	513	104	486	64	1856
Transport and Communications	243	185	173	376	298	**	312	202	152
Financial Services	62	**	47	223	**	**	182	**	**
Business Services	432	478	458	960	373	94	530	258	285
Public Administration	46	32	40	114	**	**	**	**	33
Education	182	367	125	361	67	603	54	**	332
Health and Social Work	238	157	95	410	72	1,044	51	**	267
Arts and Other Services	235	59	101	358	137	406	193	35	298

*'**' Corresponds with the double asterisks shown in Table A.3.4 (base is fewer than 25 establishments)*

Table A.3.5 Main causes of skills gaps, by sector

	Overall	Agriculture	Manufacturing	Electricity, Gas & Water	Construction	Wholesale & Retail	Hotels & Restaurants	Transport & Comms	Financial Services	Business Services	Public Admin.	Education	Health & Social Work	Arts & Other Services
Unweighted Base	*18,265*	*292*	*1,697*	*163*	*1,132*	*3,669*	*2,610*	*1,345*	*435*	*2,601*	*200*	*1,211*	*1,663*	*1,247*
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
They are new to the role	60	51	65	75	58	63	72	51	71	55	57	52	58	59
Their training is currently only partially completed	56	45	66	73	68	55	64	42	59	53	48	51	56	59
Staff lack motivation	34	34	31	22	23	38	39	38	20	35	17	34	38	32
They have been on training but their performance has not improved sufficiently	29	25	25	24	22	33	38	25	24	23	33	32	37	28
The introduction of new working practices	28	19	26	18	23	24	23	31	19	25	57	39	35	25
They have not received the appropriate training	26	29	30	46	24	27	25	30	17	23	24	23	27	27
Unable to recruit staff with the required skills	26	32	31	26	28	22	33	29	14	24	12	28	29	25
The introduction of new technology	20	20	19	13	16	19	12	24	9	18	49	20	27	20
The development of new products and services	19	10	25	15	17	18	18	26	15	13	38	19	14	15
Problems retaining staff	18	14	14	14	13	15	29	24	17	17	18	12	19	17
Summary: New to role / training not complete (transient factors)	**73**	**63**	**79**	**82**	**79**	**76**	**82**	**63**	**78**	**67**	**62**	**65**	**70**	**77**

Base: All establishments with skills gaps – up to two occupations followed up

Percentages are based on all skills gaps, rather than all establishments with skills gaps; proportions therefore show the percentage of skills gaps attributed to each cause.

Table A.3.6 Main causes of skills gaps, by occupation

	Managers	Professionals	Associate Professionals	Administrative and Clerical	Skilled Trades	Caring, Leisure and Other Services	Sales and Customer Services	Machine Operatives	Elementary occupations
	%	%	%	%	%	%	%	%	%
Unweighted Base	*7,090*	*6,829*	*5,280*	*8,514*	*7,552*	*9,904*	*17,019*	*9,088*	*19,904*
They are new to the role	45	63	65	56	58	59	70	58	61
Their training is currently only partially completed	41	61	62	55	70	56	55	62	52
Staff lack motivation	33	25	19	23	26	31	38	32	50
They have been on training but their performance has not improved sufficiently	29	22	23	26	21	32	36	24	36
The introduction of new working practices	36	32	32	39	22	35	24	25	21
They have not received the appropriate training	37	25	25	26	29	24	24	26	23
Unable to recruit staff with the required skills	18	31	22	17	33	29	22	28	31
The introduction of new technology	30	24	27	34	22	16	18	17	10
The development of new products and services	27	23	23	20	18	12	22	17	14
Problems retaining staff	12	18	17	11	18	20	20	13	24
Summary: New to role / training not complete (transient factors)	**57**	**76**	**78**	**69**	**81**	**71**	**78**	**73**	**71**

Base: All establishments with skills gaps in each occupation – up to two occupations followed up

Percentages are based on all skills gaps, rather than all establishments with skills gaps; proportions therefore show the percentage of skills gaps attributed to each cause.

Table A.3.7a Technical and practical skills lacking among staff with skills gaps, by occupation

	Overall	Managers	Professionals	Associate Professionals	Administrative / Clerical staff	Skilled Trades occupations	Caring, Leisure and Other Services	Sales and Customer Services	Machine Operatives	Elementary staff
Unweighted Base	*9,119*	*1,483*	*652*	*649*	*1,829*	*1,427*	*1,082*	*2,013*	*801*	*2,069*
	%	%	%	%	%	%	%	%	%	%
Specialist skills or knowledge	48	40	70	59	37	62	57	46	37	44
Solving complex problems	39	55	50	50	45	42	26	38	39	24
Knowledge of products and services offered	37	21	37	43	37	35	34	53	30	32
Knowledge of how the organisation works	36	25	48	41	38	25	36	41	33	27
Adapting to new equipment or materials	32	34	31	20	42	36	20	25	41	33
Computer literacy / basic IT skills	30	28	29	30	40	21	32	24	32	30
Reading/understanding instructions, reports etc.	29	17	22	24	25	29	35	24	44	35
Advanced or specialist IT skills	27	41	45	45	51	17	12	12	27	12
Complex numerical/statistical skills	24	34	34	23	41	15	14	16	24	17
Writing instructions, reports etc.	22	22	25	22	22	18	35	16	28	18
Basic numerical skills	20	9	14	9	22	15	21	19	36	23
Manual dexterity	14	18	1	10	4	27	6	7	22	23
Communicating in a foreign language	13	23	6	4	10	11	14	10	6	22
Oral Welsh language skills *(Wales only base)*	1	1	2	1	1	*	2	1	*	*
Written Welsh language skills *(Wales only base)*	1	1	2	1	1	*	1	1	*	*
None of the above	9	11	4	6	4	9	5	14	7	11

Base: All establishments with skills gaps in each occupation – up to two occupations followed up

Percentages are based on all skills gaps, rather than all establishments with skills gaps; proportions therefore show the percentage of skills gaps attributed to each skill.

'' denotes a figure greater than zero but smaller than 0.5.*

Table A.3.7b People and personal skills lacking among staff with skills gaps, by occupation

	Overall	Managers	Professionals	Associate Professionals	Administrative / Clerical staff	Skilled Trades occupations	Caring, Leisure and Other Services	Sales and Customer Services	Machine Operatives	Elementary staff
Unweighted Base	*9,119*	*1,483*	*652*	*649*	*1,829*	*1,427*	*1,082*	*2,013*	*801*	*2,069*
	%	%	%	%	%	%	%	%	%	%
Ability to manage own time and prioritise tasks	59	57	68	57	67	54	58	58	53	59
Team working	56	53	54	42	56	46	56	48	62	69
Customer handling skills	46	33	51	33	63	26	38	64	26	50
Managing own feelings / handling those of others	46	56	49	34	47	36	47	42	50	47
Managing or motivating other staff	41	68	49	47	31	31	34	33	45	40
Persuading or influencing others	39	58	52	43	35	27	28	41	39	37
Setting objectives for others / planning resources	30	60	36	46	38	20	16	21	33	18
Instructing, teaching or training people	28	42	43	28	20	27	30	22	35	23
Sales skills	23	25	24	21	17	12	11	53	6	23
Making speeches or presentations	17	27	27	31	15	10	13	13	14	12
None of the above	12	8	11	12	9	23	11	14	14	9

Base: All establishments with skills gaps in each occupation – up to two occupations followed up

Percentages are based on all skills gaps, rather than all establishments with skills gaps; proportions therefore show the percentage of skills gaps attributed to each skill.

Table A.3.7c Technical and practical skills lacking among staff with skills gaps, by sector

	Overall	Agriculture	Manufacturing	Electricity, Gas & Water	Construction	Wholesale & Retail	Hotels & Restaurants	Transport & Comms	Financial Services	Business Services	Public Admin.	Education	Health & Social Work	Arts & Other Services
Unweighted Base	*9,119*	*145*	*870*	*73*	*574*	*1,833*	*1,319*	*672*	*205*	*1,269*	*96*	*609*	*824*	*630*
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Specialist skills or knowledge	48	51	42	47	56	41	43	44	44	55	45	57	46	56
Solving complex problems	39	36	50	64	39	27	28	48	24	44	56	33	47	34
Knowledge of products and services offered	37	25	33	42	38	42	45	32	44	43	28	32	22	31
Knowledge of how the organisation works	36	27	34	39	29	31	42	34	36	40	62	45	32	32
Adapting to new equipment or materials	32	38	35	37	29	34	23	25	49	26	48	41	32	28
Computer literacy / basic IT skills	30	20	30	34	20	30	17	20	57	27	34	43	32	31
Reading/understanding instructions, reports etc.	29	28	39	61	28	22	31	30	15	27	33	34	31	26
Advanced or specialist IT skills	27	12	28	31	19	17	7	44	57	28	54	32	29	23
Complex numerical/statistical skills	24	20	24	51	19	16	13	31	51	26	49	28	24	14
Writing instructions, reports etc.	22	19	26	31	20	15	17	25	19	21	16	29	36	16
Basic numerical skills	20	26	28	32	18	17	17	10	45	22	21	18	14	21
Manual dexterity	14	44	16	10	22	12	18	16	2	14	2	4	18	14
Communicating in a foreign language	13	20	14	6	6	10	25	10	3	9	4	8	22	20
Oral Welsh language skills *(Wales base only)*	1	1	*	-	*	1	1	*	*	1	4	1	1	1
Written Welsh language skills *(Wales base only)*	1	1	*	-	*	*	*	*	-	1	4	1	1	1
None of the above	9	11	7	7	10	16	14	7	2	5	7	5	4	8

Base: All establishments with skills gaps in each occupation – up to two occupations followed up

Percentages are based on all skills gaps, rather than all establishments with skills gaps; proportions therefore show the percentage of skills gaps attributed to each skill.

Table A.3.7d People and personal skills lacking among staff with skills gaps, by occupation

	Overall	Agriculture	Manufacturing	Electricity, Gas & Water	Construction	Wholesale & Retail	Hotels & Restaurants	Transport & Comms	Financial Services	Business Services	Public Admin.	Education	Health & Social Work	Arts & Other Services
Unweighted Base	*9,119*	*145*	*870*	*73*	*574*	*1,833*	*1,319*	*672*	*205*	*1,269*	*96*	*609*	*824*	*630*
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Ability to manage own time and prioritise own tasks	59	48	53	76	53	53	59	60	79	56	64	75	68	50
Team working	56	51	61	52	36	48	62	46	72	48	62	63	64	63
Customer handling skills	46	22	23	67	34	49	67	48	82	42	57	49	33	55
Managing their own feelings, or handling the feelings of others	46	38	51	66	32	35	52	46	57	39	63	47	54	52
Managing or motivating other staff	41	30	46	47	36	34	49	30	18	37	63	45	47	44
Persuading or influencing others	39	22	44	45	31	37	38	30	27	42	63	41	38	44
Setting objectives for others and planning human, financial and other resources	30	21	35	35	22	24	27	31	54	28	49	33	32	21
Instructing, teaching or training people	28	20	41	39	19	20	38	32	11	25	23	40	22	28
Sales skills	23	13	14	27	13	37	41	24	18	24	10	13	9	29
Making speeches or presentations	17	13	22	26	16	8	16	22	14	20	14	20	15	15
None of the above	12	25	15	6	21	15	8	10	5	16	7	5	9	10

Base: All establishments with skills gaps in each occupation – up to two occupations followed up

Percentages are based on all skills gaps, rather than all establishments with skills gaps; proportions therefore show the percentage of skills gaps attributed to each skill.

Table A.3.7e Skills lacking among staff with skills gaps, by nation

	UK	England	Northern Ireland	Scotland	Wales
Unweighted Base	*9,119*	*7,683*	*271*	*593*	*572*
	%	%	%	%	%
Technical and practical skills					
Specialist skills or knowledge	48	47	54	47	56
Solving complex problems	39	39	40	41	37
Knowledge of products and services offered	37	36	43	34	44
Knowledge of how the organisation works	36	37	42	31	40
Adapting to new equipment or materials	32	31	25	38	37
Computer literacy / basic IT skills	30	29	21	31	37
Reading/understanding instructions, reports etc.	29	30	23	24	35
Advanced or specialist IT skills	27	27	20	17	33
Complex numerical/statistical skills	24	25	16	13	28
Writing instructions, reports etc.	22	23	17	19	21
Basic numerical skills	20	20	12	16	24
Manual dexterity	14	14	12	8	25
Communicating in a foreign language	13	13	13	17	10
Oral Welsh language skills *(Wales base only)*	1	n/a	n/a	n/a	22
Written Welsh language skills *(Wales base only)*	1	n/a	n/a	n/a	19
None of the above	9	9	9	8	5
People and personal skills					
Ability to manage own time and prioritise tasks	59	59	56	56	67
Team working	56	55	48	59	59
Customer handling skills	46	47	46	38	43
Managing own feelings / handling those of others	46	46	33	40	50
Managing or motivating other staff	41	40	31	43	45
Persuading or influencing others	39	39	36	41	46
Setting objectives for others / planning resources	30	31	28	21	31
Instructing, teaching or training people	28	29	26	23	32
Sales skills	23	24	27	16	24
Making speeches or presentations	17	16	23	14	29
None of the above	12	12	13	17	12

Base: All establishments with skills gaps in each occupation – up to two occupations followed up

Percentages are based on all skills gaps, rather than all establishments with skills gaps; proportions therefore show the percentage of skills gaps attributed to each skill.

Table A.3.8 Skills lacking among staff, 'old' skills descriptor time series comparisons

	2011	2013	2015
Unweighted Base	*20,820* %	*20,228* %	*9,146* %
Technical, practical or job-specific	32	58	55
Planning and organisation	46	57	48
Team working	46	54	41
Customer handling	46	50	40
Problem solving	42	49	42
Oral communication	41	47	34
Written communication	34	36	26
Basic computer literacy / using IT	20	26	20
Strategic Management	22	25	21
Literacy	22	25	18
Advanced IT or software	18	23	22
Numeracy	19	23	15
Foreign language	10	12	9
Oral Welsh language skills *(Wales base only)*	*	1	1
Written Welsh language skills *(Wales base only)*	*	1	1
None of the above	3	2	6

Base: All establishments with skills gaps in each occupation – up to two occupations followed up
Percentages are based on all skills gaps, rather than all establishments with skills gaps; proportions therefore show the percentage of skills gaps attributed to each skill.
'' denotes a figure greater than zero but smaller than 0.5.*

Table A.3.8a Skills lacking among staff, 'old' skills descriptor nation comparisons

	UK	England	Northern Ireland	Scotland	Wales
Unweighted Base	*9,146* %	*7,726* %	*249* %	*643* %	*528* %
Technical, practical or job-specific	55	55	54	58	50
Planning and organisation	48	47	34	60	48
Team working	41	39	39	57	48
Customer handling	40	39	37	55	41
Problem solving	42	41	35	45	55
Oral communication	34	34	41	37	26
Written communication	26	26	23	27	34
Basic computer literacy / using IT	20	19	33	28	20
Strategic Management	22	21	26	22	23
Literacy	18	18	26	17	32
Advanced IT or software	21	22	26	25	19
Numeracy	15	14	19	16	33
Foreign language	9	9	20	12	6
Oral Welsh language skills *(Wales base only)*	1	n/a	n/a	n/a	16
Written Welsh language skills *(Wales base only)*	1	n/a	n/a	n/a	15
None of the above	6	6	7	3	4

Base: All establishments with skills gaps in each occupation – up to two occupations followed up
Percentages are based on all skills gaps, rather than all establishments with skills gaps; proportions therefore show the percentage of skills gaps attributed to each skill.

Table A.3.9 Extent of impact of skills gaps, by country, size and sector

Row percentages	*Unwtd Base*		Major impact	Minor impact	No impact
UK 2011	*20,820*	*%*	15	46	39
UK 2013	*20,228*	*%*	16	48	37
UK 2015	*18,265*	*%*	17	48	34
Country					
England	*15,409*	*%*	17	48	35
Northern Ireland	*520*	*%*	18	51	31
Scotland	*1,236*	*%*	18	52	30
Wales	*1,100*	*%*	17	47	36
Size					
2-4	*1,240*	*%*	23	45	32
5-24	*10,084*	*%*	16	48	36
25-49	*3,530*	*%*	16	50	35
50-99	*1,948*	*%*	14	51	35
100-249	*1,064*	*%*	14	58	29
250+	*399*	*%*	17	54	28
Sector					
Agriculture	*292*	*%*	18	47	35
Manufacturing	*1,697*	*%*	16	47	37
Electricity, Gas and Water	*163*	*%*	10	52	38
Construction	*1,132*	*%*	15	42	43
Wholesale and Retail	*3,669*	*%*	18	49	33
Hotels and Restaurants	*2,610*	*%*	21	50	28
Transport and Communications	*1,345*	*%*	20	49	31
Financial Services	*435*	*%*	16	48	36
Business Services	*2,601*	*%*	19	49	33
Public Administration	*200*	*%*	11	60	29
Education	*1,211*	*%*	14	49	37
Health and Social Work	*1,663*	*%*	14	44	42
Arts and Other Services	*1,247*	*%*	16	47	37

Base: All establishments with skills gaps

Table A.3.10 Implications of skills gaps (prompted), by country, size and sector

			Prompted implications						
Row percentages	*Unwtd Base*		Increase workload for other staff	Have higher operating costs	Have difficulties meeting quality standards	Have difficulties introducing new working practices	Lose business or orders to competitors	Delay developing new products or services	Outsource work
UK	*18,265*	%	52	27	25	24	21	17	11
Country									
England	*15,409*	%	52	26	25	24	21	17	11
Northern Ireland	*520*	%	56	32	29	28	21	22	13
Scotland	*1,236*	%	57	29	29	27	20	15	10
Wales	*1,100*	%	54	28	27	23	20	19	11
Size									
2-4	*1,240*	%	53	27	25	25	26	23	15
5-24	*10,084*	%	51	25	24	22	20	16	8
25-49	*3,530*	%	53	28	26	24	19	14	10
50-99	*1,948*	%	51	29	29	25	18	14	11
100-249	*1,064*	%	59	34	33	30	16	16	11
250+	*399*	%	60	41	26	34	18	19	16
Sector									
Agriculture	*292*	%	52	38	20	22	10	12	18
Manufacturing	*1,697*	%	50	37	26	23	18	20	13
Electricity, Gas & Water	*163*	%	50	31	15	21	12	13	10
Construction	*1,132*	%	42	25	17	19	18	13	13
Wholesale & Retail	*3,669*	%	54	22	24	23	27	15	7
Hotels & Restaurants	*2,610*	%	58	35	34	26	26	20	9
Transport & Comms.	*1,345*	%	56	32	23	24	24	23	16
Financial Services	*435*	%	49	20	24	18	19	13	7
Business Services	*2,601*	%	53	28	25	23	23	18	13
Public Administration	*200*	%	60	15	26	38	8	17	8
Education	*1,211*	%	51	21	29	27	9	15	10
Health & Social Work	*1,663*	%	49	19	25	27	10	17	9
Arts and Other Services	*1,247*	%	48	20	26	26	21	19	9

Base: All establishments with skills gaps

Table A.3.11 Actions taken to overcome skills gaps, by country, size and sector

			Prompted implications								
Row percentages	*Unwtd Base*		Increase training activity	More supervision	More appraisals	Mentoring	Reallocating work	Changing working practices	Increase recruitment activity	Recruit non-UK nationals	Any action
UK	*18,265*	%	68	56	46	45	33	27	19	10	**85**
Country											
England	*15,409*	%	68	56	46	45	33	27	20	10	**85**
Northern Ireland	*520*	%	67	49	41	35	30	27	16	12	**82**
Scotland	*1,236*	%	67	58	47	45	35	29	17	9	**84**
Wales	*1,100*	%	66	58	47	48	35	29	20	8	**83**
Size											
2-4	*1,240*	%	56	44	31	33	25	20	11	5	**75**
5-24	*10,084*	%	68	58	47	45	35	28	19	10	**86**
25-49	*3,530*	%	77	62	55	53	38	31	26	15	**91**
50-99	*1,948*	%	79	63	59	56	37	32	28	16	**92**
100-249	*1,064*	%	80	58	57	58	39	36	31	15	**92**
250+	*399*	%	79	55	53	61	41	38	35	27	**90**
Sector											
Agriculture	*292*	%	49	42	21	23	29	21	9	7	**70**
Manufacturing	*1,697*	%	66	50	40	38	32	30	19	13	**84**
Electricity, Gas & Water	*163*	%	70	52	41	48	35	23	19	12	**86**
Construction	*1,132*	%	60	44	34	39	24	19	14	6	**78**
Wholesale & Retail	*3,669*	%	67	56	49	44	33	27	17	9	**85**
Hotels & Restaurants	*2,610*	%	70	61	52	47	34	30	29	19	**87**
Transport & Comms.	*1,345*	%	68	51	44	42	36	27	21	12	**84**
Financial Services	*435*	%	77	64	47	53	38	25	20	6	**89**
Business Services	*2,601*	%	69	55	43	44	34	24	20	10	**85**
Public Administration	*200*	%	75	64	50	53	42	35	17	5	**90**
Education	*1,211*	%	76	65	60	64	43	34	19	7	**92**
Health & Social Work	*1,663*	%	74	65	54	53	34	32	20	10	**89**
Arts and Other Services	*1,247*	%	65	53	43	41	33	26	16	7	**83**

Base: All establishments will skills gaps

Table A.3.12 Skills gaps and skill-shortage vacancies, by country, size and sector

Row percentages	*Unwtd Base*	% of establishments with any skills gaps	% of establishments with a skill-shortage vacancy	% of establishments with either
UK 2011	*86,522*	17	3	19
UK 2013	*91,279*	15	4	18
UK 2015	*91,210*	14	6	18
Country				
England	*75,129*	14	6	18
Northern Ireland	*4,019*	9	3	12
Scotland	*6,035*	14	6	17
Wales	*6,027*	14	6	17
Size				
2-4	*20,527*	6	3	9
5-24	*49,584*	19	7	23
25-49	*11,657*	30	11	36
50-99	*5,836*	33	13	40
100-249	*2,689*	39	17	47
250 +	*917*	43	20	52
Sector				
Agriculture	*3,632*	7	2	9
Manufacturing	*6,998*	19	8	24
Electricity, Gas and Water	*1,041*	14	8	20
Construction	*7,474*	10	5	13
Wholesale and Retail	*16,126*	16	4	18
Hotels and Restaurants	*8,920*	19	7	22
Transport and Communications	*8,936*	12	7	17
Financial Services	*2,549*	16	4	19
Business Services	*13,143*	12	6	16
Public Administration	*947*	23	5	26
Education	*5,515*	19	8	24
Health and Social Work	*8,556*	15	7	20
Arts and Other Services	*7,373*	12	6	16

Base: All establishments

Chapter 4: Employer perceptions of under-use of skills and qualifications

Table A.4.1 Impact of re-defining under-utilisation on incidence, by country size and sector (2011 - 2015)

Row percentages	% of establishments reporting under-utilisation					
	2011		2013		2015	
	Unwtd Base		*Unwtd Base*		*Unwtd Base*	
UK	*86,522*	48	*45,644*	48	*91,210*	30
Size						
2-4	*17,905*	47	*9,532*	47	*20,527*	29
5-24	*47,770*	48	*25,704*	48	*49,584*	30
25-49	*10,239*	50	*5,545*	51	*11,657*	34
50-99	*5,712*	50	*2,802*	51	*5,836*	35
100-249	*3,270*	49	*1,472*	50	*2,689*	34
250+	*1,626*	48	*589*	48	*917*	35
Sector						
Agriculture	*921*	38	*1,725*	38	*3,632*	20
Manufacturing	*7,834*	41	*3,839*	39	*6,998*	24
Electricity, Gas and Water	*1,406*	42	*571*	45	*1,041*	27
Construction	*6,576*	41	*3,623*	40	*7,474*	25
Wholesale and Retail	*15,163*	51	*8,731*	50	*16,126*	32
Hotels and Restaurants	*8,421*	61	*4,359*	60	*8,920*	40
Transport and Communications	*7,810*	45	*3,427*	44	*8,936*	27
Financial Services	*1,853*	51	*1,169*	50	*2,549*	30
Business Services	*14,297*	45	*6,939*	44	*13,143*	26
Public Administration	*1,584*	53	*480*	53	*947*	36
Education	*5,422*	53	*2,907*	54	*5,515*	37
Health and Social Work	*8,067*	50	*4,221*	53	*8,556*	36
Arts and Other Services	*7,164*	52	*3,653*	52	*7,373*	35

Base: 2011 & 2015 - All establishments; 2013 – All establishments in Module 2

Note: Incidence of under-utilisation in 2015 uses a different measure than 2011 and 2013, meaning that these proportions are not directly comparable. This table should be considered in the sense of impact of the new measure on incidence.

Table A.4.2 Reasons for under-utilisation by occupation

	Managers	Professionals	Associate Professionals	Admin. / Clerical staff	Skilled Trades occupations	Caring, Leisure and Other Services staff	Sales and Customer Services staff	Machine Operatives	Elementary staff
Unweighted Base	8,118	2,267	2,155	3,738	1,630	3,138	2,838	795	3,148
	%	%	%	%	%	%	%	%	%
They are not interested in taking on a higher level role with more responsibility	27	27	28	23	28	33	20	30	17
The working hours suit them better	11	11	11	26	10	18	19	14	19
Lack of jobs in the desired higher level role	8	8	11	12	8	11	19	15	17
To gain experience / current role is lower level in same industry as desired higher level role	7	13	14	10	8	18	11	8	9
They own the business / are a partner in the business	16	8	5	3	6	1	1	2	3
Attractive conditions of employment (e.g. pay and benefits location of firm)	7	5	8	7	8	5	8	6	7
Current role is temporary job / stop gap before starting desired career	3	2	5	6	3	5	20	5	21
Family run business	5	2	2	6	6	1	2	3	3
We actively seek staff with qualifications and/or skills beyond those needed	4	6	6	3	6	5	2	7	2
Competition for higher level roles / they are struggling to get a higher level job	2	3	4	4	2	4	7	4	6
Qualifications / Skills not relevant to job role	3	3	3	2	2	3	1	2	1
They have more than one job	1	1	1	1	1	1	1	2	3
Other	5	6	5	4	6	5	4	5	5
No particular reason / it just happened	12	11	12	8	11	8	6	9	6
Don’t know	4	6	6	6	7	4	5	6	5

Base: All establishments with under-utilised staff

Table A.4.3 Reasons for under-utilisation by country

	2015				
	UK	**England**	**Northern Ireland**	**Scotland**	**Wales**
Unweighted Base	*28,159*	*22,879*	*1,223*	*1,968*	*2,089*
	%	*%*	*%*	*%*	*%*
They are not interested in taking on a higher level role with more responsibility	26	26	24	28	22
The working hours suit them better	15	15	15	13	14
Lack of jobs in the desired higher level role	11	10	21	13	14
To gain experience / current role is lower level in same industry as desired higher level role	10	10	10	10	9
They own the business / are a partner in the business	8	9	3	6	8
Attractive conditions of employment (e.g. pay and benefits location of firm)	7	7	4	5	9
Current role is temporary job / stop gap before starting desired career	7	7	4	8	6
Family run business	4	4	4	8	7
We actively seek staff with qualifications and/or skills beyond those needed	4	4	2	4	5
Competition for higher level roles / they are struggling to get a higher level job	4	4	4	4	5
Qualifications / Skills not relevant to job role	3	3	1	2	4
They have more than one job	1	1	*	1	1
Other	5	5	7	7	2
No particular reason / it just happened	10	10	14	11	6
Don’t know	5	5	3	5	6

Base: All establishments with under-utilised staff

Table A.4.4 Reasons for under-utilisation by establishment size

	2 to 4	5 to 24	25 to 49	50 to 99	100 to 249	250+
Unweighted Base	*5,859*	*14,892*	*4,009*	*2,120*	*950*	*329*
	%	*%*	*%*	*%*	*%*	*%*
They are not interested in taking on a higher level role with more responsibility	25	26	28	28	23	18
The working hours suit them better	14	16	16	16	16	13
Lack of jobs in the desired higher level role	8	13	15	16	25	25
To gain experience / current role is lower level in same industry as desired higher level role	7	11	14	16	18	24
They own the business / are a partner in the business	13	4	1	1	*	0
Attractive conditions of employment (e.g. pay and benefits location of firm)	6	8	8	8	9	7
Current role is temporary job / stop gap before starting desired career	4	9	12	9	11	10
Family run business	6	3	1	*	*	*
We actively seek staff with qualifications and/or skills beyond those needed	4	4	4	4	5	9
Competition for higher level roles / they are struggling to get a higher level job	2	5	6	7	9	7
Qualifications / Skills not relevant to job role	3	3	2	3	1	3
They have more than one job	1	1	1	1	*	1
Other	5	4	4	6	6	4
No particular reason / it just happened	12	8	7	6	5	5
Don’t know	4	6	6	5	5	4

Base: All establishments with under-utilised staff.

Table A.4.5 Reasons for under-utilisation by sector

	Agriculture	Manufacturing	Electricity, Gas and Water	Construction	Wholesale and Retail	Hotels and Restaurants	Transport, Storage and Comms	Financial Services	Business Services	Public Admin.	Education	Health and Social Work	Arts and Other Services
Unweighted Base	*735*	*1,644*	*273*	*1,756*	*5,200*	*3,892*	*2,446*	*737*	*3,356*	*355*	*2,068*	*3,024*	*2,673*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
They are not interested in taking on a higher level role with more responsibility	26	22	23	22	24	22	24	21	24	29	30	35	33
The working hours suit them better	11	13	9	12	16	17	12	14	13	20	24	16	17
Lack of jobs in the desired higher level role	4	12	14	6	14	14	8	11	9	20	10	11	9
To gain experience / current role is lower level in same industry as desired higher level role	6	8	8	8	9	8	8	13	10	13	18	13	11
They own the business / are a partner in the business	10	12	12	17	6	7	12	8	11	1	2	3	6
Attractive conditions of employment (e.g. pay and benefits location of firm)	4	9	7	7	8	7	7	7	7	7	5	8	6
Current role is temporary job / stop gap before starting desired career	2	4	3	2	10	17	3	3	4	3	5	5	6
Family run business	21	4	7	7	4	3	4	3	4	*	*	1	2
We actively seek staff with qualifications and/or skills beyond those needed	3	4	10	5	2	2	5	4	6	5	4	5	4
Competition for higher level roles / they are struggling to get a higher level job	1	4	4	1	5	5	3	4	3	4	4	5	4
Qualifications / Skills not relevant to job role	3	3	2	3	2	2	3	4	4	2	3	3	3
They have more than one job	2	1	0	1	1	3	1	1	1	2	*	1	2
Other	3	7	8	4	5	4	5	5	5	6	4	7	5
No particular reason / it just happened	14	10	8	14	9	8	11	11	11	6	7	7	9
Don’t know	2	5	6	5	5	5	6	6	6	7	5	4	4

Base: All establishments with under-utilised staff

Chapter 5: Training and workforce development

Table A.5.1 Proportion of employers providing any training (2011 – 2015)

	2011		2013		2015	
Row percentages	*Unwtd Base*	**Any Training** %	*Unwtd Base*	**Any Training** %	*Unwtd Base*	**Any Training** %
UK	*86,522*	**65**	*91,279*	**66**	*91,210*	**66**
Country						
England	*74,156*	**65**	*75,255*	**66**	*75,129*	**66**
Northern Ireland	*3,921*	**65**	*4,014*	**63**	*4,019*	**62**
Scotland	*2,487*	**73**	*6,014*	**70**	*6,035*	**71**
Wales	*5,958*	**63**	*5,996*	**62**	*6,027*	**63**
Size						
2-4	*17,905*	**51**	*19,058*	**52**	*20,527*	**51**
5-24	*47,770*	**77**	*51,565*	**77**	*49,584*	**78**
25-49	*10,239*	**92**	*10,947*	**93**	*11,657*	**92**
50-99	*5,712*	**95**	*5,584*	**95**	*5,836*	**95**
100-249	*3,270*	**96**	*2,938*	**97**	*2,689*	**96**
250+	*1,626*	**97**	*1,187*	**97**	*917*	**97**
Sector						
Agriculture	*921*	**52**	*3,407*	**50**	*3,632*	**50**
Manufacturing	*7,838*	**62**	*7,560*	**59**	*6,998*	**63**
Electricity, Gas & Water	*1,406*	**76**	*1,148*	**75**	*1,041*	**74**
Construction	*6,576*	**58**	*7,202*	**56**	*7,474*	**57**
Wholesale & Retail	*15,163*	**60**	*17,287*	**61**	*16,126*	**60**
Hotels & Restaurants	*8,421*	**61**	*8,888*	**62**	*8,920*	**63**
Transport & Comms.	*7,810*	**61**	*6,890*	**63**	*8,936*	**62**
Financial Services	*1,853*	**76**	*2,330*	**77**	*2,549*	**74**
Business Services	*14,297*	**67**	*14,011*	**67**	*13,143*	**68**
Public Administration	*1,584*	**90**	*942*	**90**	*947*	**90**
Education	*5,422*	**91**	*5,796*	**92**	*5,515*	**93**
Health & Social Work	*8,067*	**89**	*8,460*	**89**	*8,556*	**88**
Arts and Other Services	*7,164*	**69**	*7,358*	**69**	*7,373*	**70**

Base: All establishments

Table A.5.2 Incidence of off and on-the-job training' (2011 – 2015)

	2011			2013			2015		
Row percentages	*Unwtd Base*	Any off-job training %	Any on-job training %	*Unwtd Base*	Any off-job training %	Any on-job training %	*Unwtd Base*	Any off-job training %	Any on-job training %
UK	*86,522*	47	53	*91,279*	49	52	*91,210*	49	53
Country									
England	*74,156*	46	52	*75,255*	48	52	*75,129*	48	52
Northern Ireland	*3,921*	48	50	*4,014*	49	47	*4,019*	47	49
Scotland	*2,487*	53	60	*6,014*	53	57	*6,035*	52	58
Wales	*5,958*	47	50	*5,996*	47	49	*6,027*	50	49
Size									
2-4	*17,905*	34	38	*19,058*	36	37	*20,527*	35	37
5-24	*47,770*	56	64	*51,565*	58	63	*49,584*	58	64
25-49	*10,239*	75	83	*10,947*	77	83	*11,657*	76	83
50-99	*5,712*	82	87	*5,584*	83	88	*5,836*	82	88
100-249	*3,270*	84	91	*2,938*	87	92	*2,689*	85	91
250+	*1,626*	87	94	*1,187*	89	93	*917*	86	92
Sector									
Agriculture	*921*	37	36	*3,407*	40	30	*3,632*	41	31
Manufacturing	*7,838*	43	48	*7,560*	43	45	*6,998*	46	50
Electricity, Gas & Water	*1,406*	60	61	*1,148*	60	59	*1,041*	61	58
Construction	*6,576*	46	38	*7,202*	45	37	*7,474*	46	38
Wholesale & Retail	*15,163*	36	50	*17,287*	40	50	*16,126*	39	48
Hotels & Restaurants	*8,421*	38	50	*8,888*	39	51	*8,920*	40	52
Transport & Comms.	*7,810*	42	48	*6,890*	46	48	*8,936*	44	48
Financial Services	*1,853*	52	67	*2,330*	54	66	*2,549*	53	64
Business Services	*14,297*	50	52	*14,011*	51	52	*13,143*	51	53
Public Administration	*1,584*	73	81	*942*	73	79	*947*	74	78
Education	*5,422*	80	81	*5,796*	80	82	*5,515*	82	84
Health & Social Work	*8,067*	73	78	*8,460*	75	77	*8,556*	72	77
Arts and Other Services	*7,164*	50	56	*7,358*	52	56	*7,373*	51	58

Base: All establishments

Table A.5.3 Unweighted base sizes for Tables 5.1 and 5.3

	2011	2013	2015
UK	*86,522*	*91,279*	*91,210*
Country			
England	*74,156*	*75,255*	*75,129*
Northern Ireland	*3,921*	*4,014*	*4,019*
Scotland	*2,487*	*6,014*	*6,035*
Wales	*5,958*	*5,996*	*6,027*
Size			
2-4	*17,905*	*19,058*	*20,527*
5 to 24	*47,770*	*51,565*	*49,584*
25-49	*9,416*	*10,123*	*11,657*
50-99	*5,416*	*5,315*	*5,836*
100-249	*3,270*	*2,938*	*2,689*
250+	*1,626*	*1,187*	*917*

Base: All establishments

Table A.5.4 Number employed and trained over the last 12 months by sector, and the proportion of the workforce trained

Row percentages	*Unwtd Base*	2011 % of staff trained	2013 % of staff trained	2015 Number employed (000s)	2015 Number trained (000s)	2015 % of staff trained
Agriculture	*1,871*	39	41	402	159	40
Manufacturing	*5,055*	46	50	2,418	1,248	52
Electricity, Gas & Water	*796*	55	68	284	166	58
Construction	*5,004*	49	48	1,169	621	53
Wholesale & Retail	*11,470*	52	55	4,500	2,473	55
Hotels & Restaurants	*6,849*	55	59	1,955	1,252	64
Transport & Comms.	*5,981*	44	56	2,228	1,233	55
Financial Services	*1,920*	59	67	988	704	71
Business Services	*10,623*	52	60	4,792	2,878	60
Public Administration	*851*	61	67	1,346	993	74
Education	*5,300*	65	76	2,620	1,962	75
Health & Social Work	*7,941*	66	80	3,791	2,949	78
Arts and Other Services	*5,840*	55	63	1,262	767	61

Base: Establishments that had funded or arranged training in the previous 12 months.

Note: 'the percentage of staff trained' refers to the number of staff trained over the last 12 months (whether or not they still work at the establishment) as a percentage of the number of staff currently employed.

Table A.5.5 Unweighted base sizes for Figure 5.2

	2011	2013	2015
Occupation			
Managers	*83,138*	*87,946*	*87,590*
Professionals	*16,360*	*17,407*	*17,483*
Associate Professionals	*13,753*	*12,577*	*13,309*
Administrative and Clerical	*50,780*	*53,759*	*53,622*
Skilled Trades occupations	*20,540*	*23,644*	*24,025*
Caring, Leisure and Other Services	*12,731*	*14,017*	*15,310*
Sales and Customer Services	*26,790*	*27,417*	*25,940*
Machine Operatives	*13,381*	*14,059*	*14,105*
Elementary staff	*30,663*	*32,192*	*31,970*

Base: All establishments with staff in each occupation (excluding establishments where the numbers of staff if unknown)

Table A.5.6 Unweighted base sizes for Tables 5.2 and 5.3

	2011	2013	2015
UK	*66,439*	*69,842*	*69,541*
Country			
England	*56,713*	*57,787*	*57,422*
Northern Ireland	*2,903*	*2,894*	*2,869*
Scotland	*2,170*	*4,884*	*4,894*
Wales	*4,653*	*4,277*	*4,356*
Size			
2-4	*9,121*	*9,580*	*10,317*
5-24	*37,758*	*40,801*	*39,461*
25-49	*9,416*	*10,123*	*10,742*
50-99	*5,416*	*5,315*	*5,547*
100-249	*3,150*	*2,864*	*2,584*
250+	*1,578*	*1,159*	*890*

Base: Establishments that had funded or arranged training in the previous 12 months.

Table A.5.7 Average training days over the last 12 months per person trained

			Average days training per person trained					
Row percentages	*Unwtd Base*		1 day or less	2	3-4	5-6	7-10	11+
UK	*69,541*	%	11	14	19	16	13	18
Country								
England	*57,422*	%	11	14	19	16	13	18
Northern Ireland	*2,869*	%	11	14	22	18	13	14
Scotland	*4,894*	%	11	14	20	17	13	17
Wales	*4,356*	%	11	15	19	18	13	18
Size								
2-4	*10,317*	%	12	13	19	16	14	19
5-24	*39,461*	%	10	15	19	16	13	18
25-49	*10,742*	%	10	15	19	17	12	16
50-99	*5,547*	%	10	16	19	17	12	14
100-249	*2,584*	%	12	16	20	17	10	11
250+	*890*	%	13	13	23	18	9	7
Sector								
Agriculture	*1,871*	%	16	22	25	14	9	9
Manufacturing	*5,055*	%	12	17	19	15	11	17
Electricity, Gas & Water	*796*	%	11	13	21	21	13	13
Construction	*5,044*	%	11	16	20	17	12	18
Wholesale & Retail	*1,170*	%	13	14	18	15	12	20
Hotels & Restaurants	*6,849*	%	15	14	16	13	12	21
Transport & Comms.	*5,981*	%	11	14	17	18	14	18
Financial Services	*1,920*	%	7	11	16	19	16	24
Business Services	*10,623*	%	10	14	21	17	14	16
Public Administration	*851*	%	6	15	22	23	11	13
Education	*5,300*	%	9	15	22	21	13	11
Health & Social Work	*7,941*	%	7	12	20	17	17	17
Arts and Other Services	*5,840*	%	12	14	20	15	12	19

Base: Establishments that had funded or arranged training in the previous 12 months.

Table A.5.8 Total training and development days, and days per person trained and per employee by sector 2011 to 2015

	2011				2013				2015			
	Unwtd Base	Total training days	Days per person trained	Days per employee	*Unwtd Base*	Total training days	Days per person trained	Days per employee	*Unwtd Base*	Total training days	Days per person trained	Days per employee
UK	*66,439*	115m	7.8	4.2	*69,842*	113m	6.7	4.2	*69,541*	118m	6.8	4.2
Sector												
Agriculture	*548*	1.0m	7.2	2.8	*1,710*	0.9m	5.7	2.4	*1,871*	0.9m	5.4	2.1
Manufacturing	*5,450*	8.9m	7.7	3.6	*5,231*	6.3m	5.3	2.7	*5,055*	7.6m	6.1	3.1
Electricity, Gas & Water	*1,070*	1.3m	8.6	4.7	*878*	1.7m	9.0	6.0	*796*	0.9m	5.3	3.1
Construction	*4,399*	4.6m	6.9	3.4	*4,777*	3.7m	6.2	3.0	*5,044*	4.1m	6.7	3.5
Wholesale & Retail	*11,001*	20.0m	8.7	4.5	*12,425*	19.3m	7.9	4.4	*11,470*	19.0m	7.7	4.2
Hotels & Restaurants	*6,185*	10.7m	11.4	6.2	*6,761*	9.6m	9.1	5.3	*6,849*	13.2m	10.5	6.8
Transport & Comms.	*5,430*	6.1m	6.5	2.9	*4,939*	6.8m	5.8	3.2	*5,981*	6.7m	5.4	3.0
Financial Services	*1,460*	4.1m	6.6	3.9	*1,824*	3.4m	4.9	3.3	*1,920*	3.8m	5.4	3.8
Business Services	*11,268*	15.2m	6.7	3.5	*11,127*	19.2m	7.1	4.3	*10,623*	18.2m	6.3	3.8
Public Administration	*1,444*	9.4m	9.9	6.0	*861*	7.4m	7.7	5.2	*851*	5.1m	5.2	3.8
Education	*5,117*	9.0m	5.5	3.6	*5,568*	9.6m	4.9	3.8	*5,300*	10.8m	5.5	4.1
Health & Social Work	*7,484*	18.2m	7.9	5.2	*7,935*	19.0m	6.6	5.3	*7,941*	21.1m	7.2	5.6
Arts and Other Services	*5,583*	6.0m	8.9	4.9	*5,806*	5.9m	7.7	4.8	*5,840*	6.4m	8.4	5.1

Base: Establishments that had funded or arranged training in the previous 12 months.

'Days per employee' is based upon employment across all establishments.

Table A.5.9 Percentage of training that has been health and safety or induction training (2011, 2013 & 2015)

	2011	2013	2015				
	UK	UK	UK	England	Northern Ireland	Scotland	Wales
Unweighted Base			*69,541*	*57,422*	*2,869*	*4,894*	*4,356*
	%	%	%	%	%	%	%
Less than 20%	23	28	25	25	23	27	25
20-49%	24	22	23	23	20	23	24
50-80%	18	15	17	17	17	16	18
More than 80% but not all	5	3	4	4	3	4	4
All of it (100%)	7	9	11	11	18	10	10
AT LEAST 50%	30	27	32	32	39	29	32
None	18	19	15	15	14	16	14
Don’t know	5	3	5	5	4	4	5

Base: Establishments that had funded or arranged training in the previous 12 months.

Table A.5.10 Types of training provided over the last 12 months (prompted)

Row percentages	*Unwtd Base*		Job specific	Health & Safety	New technology	Basic Induction	Extensive induction	Management
UK 2011	*66,439*	%	85	75	47	47	n/a	35
UK 2013	*69,842*	%	85	74	48	48	n/a	35
UK 2015	*69,541*	%	85	75	49	66	37	37
Country								
England	*57,422*	%	86	75	49	66	37	37
Northern Ireland	*2,869*	%	82	78	50	61	33	35
Scotland	*4,894*	%	86	74	49	66	36	34
Wales	*4,356*	%	86	77	51	66	37	37
Size								
2-4	*10,317*	%	81	62	47	46	23	24
5-24	*39,461*	%	87	80	48	74	41	39
25-49	*10,742*	%	92	93	55	90	54	60
50-99	*5,547*	%	94	95	61	93	59	66
100-249	*2,584*	%	96	96	71	96	64	76
250+	*890*	%	96	96	79	96	69	88
Sector								
Agriculture	*1,871*	%	80	68	43	32	13	14
Manufacturing	*5,055*	%	84	79	48	69	35	28
Electricity, Gas & Water	*796*	%	88	86	44	69	40	35
Construction	*5,044*	%	77	81	36	55	25	25
Wholesale & Retail	*11,470*	%	85	76	52	70	40	41
Hotels & Restaurants	*6,849*	%	85	85	34	79	46	47
Transport & Comms.	*5,981*	%	85	60	65	58	30	28
Financial Services	*1,920*	%	92	61	57	62	37	43
Business Services	*10,623*	%	87	64	57	60	32	32
Public Administration	*851*	%	91	84	61	75	44	56
Education	*5,300*	%	93	89	59	79	46	58
Health & Social Work	*7,941*	%	89	89	41	77	50	47
Arts and Other Services	*5,840*	%	85	76	46	67	36	32

Base: Establishments that had funded or arranged training in the previous 12 months.

n/a: Extensive induction was a new code added into the 2015 survey

Table A.5.11 Training to nationally recognised qualifications in the last 12 months among employers that train

Row percentages	*Unwtd Base*	Any staff trained to a qualification	Number trained to a qualification	% of those trained to a qualification	% of all employees trained to a qualification
UK	*69,541*	47	3.5m	20	12
Size					
2-4	*10,317*	36	0.3m	26	11
5-24	*39,461*	49	0.9m	25	14
25-49	*10,742*	63	0.5m	23	15
50-99	*5,547*	69	0.5m	20	13
100-249	*2,584*	73	0.5m	17	12
250+	*890*	80	0.8m	15	10
Sector					
Agriculture	*1,871*	44	*	29	11
Manufacturing	*5,055*	43	0.2m	16	8
Electricity, Gas & Water	*796*	55	*	22	13
Construction	*5,044*	53	0.2m	31	17
Wholesale & Retail	*11,470*	38	0.3m	13	7
Hotels & Restaurants	*6,849*	51	0.2m	19	12
Transport & Comms.	*5,981*	39	0.3m	24	13
Financial Services	*1,920*	47	0.1m	18	13
Business Services	*10,623*	41	0.5m	17	10
Public Administration	*851*	62	0.2m	17	13
Education	*5,300*	65	0.3m	14	10
Health & Social Work	*7,941*	65	0.9m	29	23
Arts and Other Services	*5,840*	50	0.2m	29	17

Base: Establishments that had funded or arranged training in the previous 12 months.

Note the final column shows the proportion of all employees in that size band or sector that were trained to a qualification (not the proportion of employees within establishments that train).

*Note: * refers to a figure of less than £50,000*

Table A.5.12 Whether establishment has funded or arranged online training or e-learning, or other self-learning, over the past 12 months

					Online training			Other self-learning		
Row percentages	*Unwtd Base*	% funding or arranging online	% funding or arranging other	% funding or arranging either	*Unwtd Base*	% reporting increase	% reporting decrease	*Unwtd Base*	% reporting increase	% reporting decrease
UK	*69,541*	45	38	57	*39,695*	39	18	*35,783*	29	23
Country										
England	*57,422*	45	39	57	*33,257*	39	18	*29,864*	30	23
Northern Ireland	*2,869*	34	35	48	*1,268*	38	22	*1,324*	24	27
Scotland	*4,894*	44	36	55	*2,805*	40	17	*2,449*	29	25
Wales	*4,356*	43	37	56	*2,365*	40	19	*2,146*	30	24
Size										
2-4	*10,317*	35	32	48	*4,212*	35	22	*4,127*	28	26
5-24	*39,461*	47	39	58	*21,708*	40	17	*19,022*	29	23
25-49	*10,742*	61	51	72	*7,195*	43	13	*6,458*	34	20
50-99	*5,547*	62	56	74	*3,892*	41	14	*3,660*	32	19
100-249	*2,584*	70	60	81	*1,965*	42	12	*1,836*	31	19
250+	*890*	78	65	87	*723*	44	9	*680*	29	18
Sector										
Agriculture	*1,871*	14	20	28	*413*	28	37	*559*	16	36
Manufacturing	*5,055*	29	24	40	*1,913*	42	24	*1,772*	29	30
Electricity, Gas & Water	*796*	35	27	46	*337*	37	24	*287*	27	29
Construction	*5,044*	30	25	42	*2,021*	37	23	*1,700*	28	28
Wholesale & Retail	*11,470*	41	34	52	*6,240*	43	16	*5,254*	31	24
Hotels & Restaurants	*6,849*	49	39	61	*4,396*	40	15	*3,798*	31	24
Transport & Comms.	*5,981*	43	42	58	*2,923*	36	19	*2,765*	30	21
Financial Services	*1,920*	71	54	80	*1,501*	36	11	*1,218*	31	18
Business Services	*10,623*	48	40	60	*6,288*	37	19	*5,683*	28	22
Public Administration	*851*	67	55	79	*615*	44	12	*521*	33	19
Education	*5,300*	65	55	7	*4,103*	38	17	*3,649*	31	21
Health & Social Work	*7,941*	62	55	75	*5,924*	42	15	*5,623*	31	21
Arts and Other Services	*5,840*	35	36	51	*3,021*	41	22	*2,954*	28	25

Base: Columns 1-3: Establishments that had funded or arranged training in the previous 12 months; columns 4-5: Establishments providing online training or e-learning in the last two years; columns 6-7: establishments providing other self-learning in the last two years

Table A.5.13 Total training expenditure and training spend per person trained and per employee by sector (2011 - 2015)

	2011				2013				2015			
	Unwtd Base	**Total**	**Spend per trainee**	**Spend per employee**	*Unwtd Base*	**Total**	**Spend per trainee**	**Spend per employee**	*Unwtd Base*	**Total**	**Spend per trainee**	**Spend per employee**
UK	*11,027*	£43.8bn	£2,974	£1,620	*12,522*	£43.0bn	£2,560	£1,600	*12,614*	£45.4bn	£2,610	£1,640
Size												
2-4	*1,774*	£5.5bn	£5,700	£2,290	*2,317*	£5.6bn	£5,650	£2,320	*1,963*	£5.9bn	£5,810	£2,470
5-24	*6,542*	£12.0bn	£3,570	£1,880	*6,953*	£12.7bn	£3,630	£1,970	*7,661*	£14.1bn	£3,750	£2,100
25-49	*1,452*	£6.1bn	£3,100	£1,810	*1,722*	£6.4bn	£3,080	£1,930	*1,779*	£6.3bn	£2,810	£1,820
50-99	*708*	£5.5bn	£2,740	£1,616	*928*	£5.5bn	£2,460	£1,610	*782*	£6.5bn	£2,820	£1,860
100+	*551*	£14.7bn	£2,290	£1,290	*602*	£12.7bn	£1,600	£1,120	*429*	£12.7bn	£1,560	£1,080
Sector												
Agriculture	*87*	£1.1bn	£7,780	£3,030	*297*	£0.4bn	£2,680	£1,110	*260*	£0.6bn	£3,590	£1,420
Manufacturing	*816*	£3.4bn	£2,960	£1,370	*867*	£2.6bn	£2,200	£1,110	*972*	£3.2bn	£2,570	£1,320
Electricity, Gas & Water	*137*	£0.3bn	£1,860	£1,020	*163*	£0.3bn	£1,490	£1,010	*168*	£0.7bn	£3,960	£2,320
Construction	*655*	£2.5bn	£3,629	£1,790	*893*	£2.4bn	£4,050	£1,960	*826*	£2.5bn	£4,090	£2,170
Wholesale & Retail	*1,815*	£5.1bn	£2,220	£1,150	*1,945*	£6.5bn	£2,630	£1,460	*1,813*	£5.1bn	£2,050	£1,130
Hotels & Restaurants	*1,055*	£3.0bn	£3,185	£1,740	*1,091*	£2.7bn	£2,510	£1,460	*1,273*	£3.3bn	£2,670	£1,710
Transport & Comms.	*862*	£3.1bn	£3,320	£1,460	*954*	£3.3bn	£2,770	£1,540	*1,135*	£3.4bn	£2,720	£1,500
Financial Services	*220*	£1.5bn	£2,410	£1,430	*369*	£1.3bn	£1,880	£1,270	*344*	£1.6bn	£2,320	£1,650
Business Services	*2.036*	£8.3bn	£3,680	£1,900	*2,337*	£8.5bn	£3,170	£1,910	*2,073*	£9.8bn	£3,420	£2,060
Public Administration	*231*	£3.1bn	£3,330	£2,010	*213*	£2.1bn	£2,220	£1,490	*176*	£1.9bn	£1,960	£1,450
Education	*558*	£4.9bn	£2,980	£1,930	*621*	£5.4bn	£2,770	£2,100	*678*	£4.6bn	£2,320	£1,740
Health & Social Work	*1,515*	£5.2bn	£2,270	£1,500	*1,540*	£5.1bn	£1,790	£1,420	*1,790*	£6.1bn	£2,070	£1,610
Arts & Other Services	*1,011*	£2.3bn	£3,412	£1,880	*1,232*	£2.3bn	£3,010	£1,890	*1,106*	£2.6bn	£3,410	£2,070

Base: Establishments completing the Investment in Training study. Note: figures for spend per person trained and per employee have been rounded to the nearest £10.

Table A.5.14 Training expenditure spent on Further Education colleges, Universities or other Higher Education institutions, and the proportion of the total fees to external providers that this represents

Row percentages	*Unwtd Base*	**Total fees to external providers**	**Total fees to FE/HE providers**		**% of fees to external providers paid to FE/HE providers**
UK	*12,614*	£3.0bn	£453m	%	15
Size					
2 to 4	*1,963*	£0.5bn	£73m	%	15
5 to 24	*7,661*	£1.0bn	£143m	%	14
25 to 49	*1,779*	£0.4bn	£61m	%	14
50 to 99	*782*	£0.3bn	£35m	%	10
100+	*429*	£0.7bn	£141m	%	19
Sector					
Agriculture	*260*	£0.1bn	£10m	%	18
Manufacturing	*972*	£0.2bn	£34m	%	16
Electricity, Gas & Water	*168*	£0.04bn	£2m	%	5
Construction	*826*	£0.3bn	£37m	%	14
Wholesale & Retail	*1,813*	£0.3bn	£39m	%	11
Hotels & Restaurants	*1,273*	£0.1bn	£8m	%	7
Transport & Comms.	*1,135*	£0.2bn	£20m	%	10
Financial Services	*344*	£0.1bn	£8m	%	11
Business Services	*2,073*	£0.9bn	£158m	%	17
Public Administration	*176*	£0.1bn	£11m	%	10
Education	*678*	£0.2bn	£45m	%	19
Health & Social Work	*1,790*	£0.3bn	£61m	%	19
Arts and Other Services	*1,106*	£0.1bn	£20m	%	15

Base: Establishments completing the Investment in Training study.

First column rounded to the nearest £0.01bn; second column to the nearest £1m

Table A.5.15 Whether training employers would have liked to provide more training, and if so the main barriers (prompted)

					Main barriers among those wanting to provide more training				
Row percentages	*Unwtd Base*	% would have liked to provide more training	*Unwtd Base*		Lack of funds/ training expensive	Can't spare time for employees to be training	Hard to find the time to organise training	Lack appropriate training / qualifications in the subjects we need	Difficulty finding provider to deliver where and when we want
UK	*69,541*	46	*33,281*	%	52	49	14	5	4
Country									
England	*57,422*	46	*27,152*	%	51	49	14	5	4
Northern Ireland	*2,869*	47	*1,406*	%	60	44	14	5	5
Scotland	*4,894*	50	*2,513*	%	53	54	12	4	6
Wales	*4,356*	49	*2,210*	%	52	47	16	6	7
Size									
2-4	*10,317*	43	*4,382*	%	53	47	14	5	4
5-24	*39,461*	48	*18,801*	%	49	51	14	5	4
25-49	*10,742*	49	*5,281*	%	52	51	15	4	4
50-99	*5,547*	50	*2,798*	%	55	52	14	3	3
100-249	*2,584*	57	*1,486*	%	61	48	14	3	3
250+	*890*	59	*533*	%	65	51	14	3	5
Sector									
Agriculture	*1,871*	34	*659*	%	43	49	14	11	9
Manufacturing	*5,055*	45	*2,321*	%	50	51	14	6	4
Electricity, Gas & Water	*796*	40	*328*	%	55	48	13	3	5
Construction	*5,044*	40	*2,076*	%	52	49	14	5	4
Wholesale & Retail	*11,470*	46	*5,514*	%	39	52	16	4	4
Hotels & Restaurants	*6,849*	51	*3,599*	%	46	44	15	3	3
Transport & Comms.	*5,981*	48	*2,774*	%	53	51	15	5	4
Financial Services	*1,920*	39	*736*	%	34	60	15	3	3
Business Services	*10,623*	43	*4,650*	%	54	52	15	4	3
Public Administration	*851*	50	*422*	%	63	49	13	5	5
Education	*5,300*	53	*2,850*	%	71	48	9	4	4
Health & Social Work	*7,941*	52	*4,201*	%	61	46	12	5	5
Arts and Other Services	*5,840*	53	*3,151*	%	64	43	12	4	4

Base: Column 1: Establishments that had funded or arranged any training in the previous 12 months; Columns 2-6 Establishments that would have liked to provide more training

Table A.5.16 Reasons for not funding or arranging training over the last 12 months (unprompted)

	2011	2013	2015				
	UK	UK	UK	England	Northern Ireland	Scotland	Wales
Unweighted Base	*19,363*	*20,704*	*20,719*	*16,899*	*1,119*	*1,070*	*1,631*
	%	*%*	*%*	*%*	*%*	*%*	*%*
All our staff are fully proficient / no need for training	64	69	68	68	64	67	66
No money available for training	11	10	7	7	10	6	9
Training is not a priority for the establishment	9	7	7	7	10	6	9
No training available in relevant subject area	7	5	5	5	4	4	6
Managers have lacked the time to organise training	3	3	2	2	2	3	3
Employees are too busy to undertake training	2	2	2	2	2	3	3
Employees are too busy to give training	1	2	2	2	2	1	2
External courses are too expensive	2	2	1	1	1	1	1
Learn by experience/as you go	3	2	3	3	2	2	3
Business not operating long enough/New business	1	1	1	1	1	1	1
Small firm/training not needed due to size of establishment	1	1	1	1	1	1	2
Trained staff will be poached by other employers	1	1	1	1	2	1	1
Courses interested in not available	1	1	1	1	1	1	1
No new staff (only train new staff)	*	1	*	*	*	*	1
No particular reason	5	5	6	5	8	9	3

Base: Establishments that had not funded or arranged training or development in the previous 12 months.

Note: responses are only shown if given by one per cent or more of respondents in 2015

'' denotes a figure larger than zero but smaller than 0.5*

Table A.5.17 Incidence of wider development activities

Row percentages	2015 Unwtd Base	2013 Unwtd Base	2011 Unwtd Base		2015					
					Supervision guiding employees through their job role	Opportunities for staff to watch others carry out their roles	Allowed to perform tasks beyond their job roles	Any wider development activities 2015	Any wider development activities 2013	Any wider development activities 2011
UK	*91,210*	*91,279*	*86,522*	%	74	70	66	84	85	82
Country										
England	*75,129*	*75,255*	*74,156*	%	74	70	67	84	85	82
Northern Ireland	*4,019*	*4,014*	*3,921*	%	75	69	64	85	81	83
Scotland	*6,035*	*6,014*	*2,487*	%	75	71	65	85	86	84
Wales	*6,027*	*5,996*	*5,958*	%	70	67	62	81	81	79
Size										
2-4	*20,527*	*19,058*	*17,905*	%	62	57	57	75	76	73
5-24	*49,584*	*51,565*	*47,770*	%	85	81	74	93	93	91
25-49	*11,657*	*10,947*	*19,239*	%	93	90	80	98	98	96
50-99	*5,836*	*5,584*	*5,712*	%	94	91	79	98	98	97
100-249	*2,689*	*2,938*	*3,270*	%	95	92	83	99	99	98
250+	*917*	*1,187*	*1,626*	%	95	91	85	99	99	99
Sector										
Agriculture	*3,632*	*3,407*	*921*	%	51	50	42	65	66	69
Manufacturing	*6,998*	*7,560*	*7,838*	%	73	69	65	83	81	79
Electricity, Gas & Water	*1,041*	*1,148*	*1,406*	%	76	67	63	85	86	85
Construction	*7,474*	*7,202*	*6,576*	%	65	58	54	76	74	72
Wholesale & Retail	*16,126*	*17,287*	*15,163*	%	75	73	68	85	87	83
Hotels & Restaurants	*8,920*	*8,888*	*8,421*	%	81	75	70	89	88	85
Transport & Comms.	*8,936*	*6,890*	*7,810*	%	66	65	65	81	82	80
Financial Services	*2,549*	*2,330*	*1,853*	%	79	74	70	88	91	90
Business Services	*13,143*	*14,011*	*14,297*	%	72	67	68	84	84	81
Public Administration	*947*	*942*	*1,584*	%	88	82	74	94	96	95
Education	*5,515*	*5,796*	*5,422*	%	87	89	79	96	96	94
Health & Social Work	*8,556*	*8,460*	*8,067*	%	90	82	75	95	95	94
Arts and Other Services	*7,373*	*7,358*	*7,164*	%	78	74	69	89	88	86

Base: All establishments

Chapter 6: High Performance Working practices and product market strategies

Table A.6.1 Summary of recruitment activity, experience of hard-to-fill vacancies (HtfVs) and skill-shortage vacancies (SSVs) by HPW classification and size

		Have vacancies	Have HtFVs	Have SSVs	HtFVs / vacs	SSVs / vacs	SSVs / HtFVs
Row percentages	*Unwtd Base*	*%*	*%*	*%*	*%*	*%*	*%*
HPW employers							
2-4	*322*	25	14	11	46	33	73
5-24	*4,213*	33	12	8	33	22	66
25-49	*2,004*	46	15	11	29	20	68
50-99	*1,222*	57	19	14	31	20	66
100-249	*721*	65	20	15	22	15	68
250+	*310*	69	28	23	22	19	85
5-99	*7,439*	39	13	10	31	21	66
Non-HPW Employers							
2-4	*9,866*	9	4	3	39	25	65
5-24	*20,536*	21	8	6	39	26	66
25-49	*3,746*	39	14	11	31	21	68
50-99	*1,664*	48	17	12	30	20	66
100-249	*636*	61	22	17	28	20	71
250+	*152*	72	22	18	19	15	79
5-99	*25,946*	24	9	7	36	24	67

Base: All establishments by HPW classification and size.

'HtFVs / vacs' is shown as all hard-to-fill vacancies as a proportion of all private sector vacancies; ''SSVs / vacs' is shown as all skill-shortage vacancies as a proportion of all private sector vacancies; 'SSVs / HtFVs' is shown as all skill-shortage vacancies as a proportion of all hard-to-fill private sector vacancies

Table A.6.2 Training activity among HPW employers and non-HPW employers by size band and sector

Row percentages	*Unwtd Base*	**Any training**	**Proportion of staff trained**
		%	**%**
Size			
HPW employers			
2-4	*322*	96	89
5-24	*4,213*	98	78
25-49	*2,004*	98	75
50-99	*1,222*	99	76
100-249	*721*	99	75
250+	*310*	99	78
5-99	*7,439*	98	76
Non-HPW employers			
2-4	*9,866*	50	42
5-24	*20,536*	75	51
25-49	*3,746*	89	60
50-99	*1,664*	93	59
100-249	*636*	93	57
250+	*152*	93	56
5-99	*25,946*	77	55
Sector			
HPW employers			
Agriculture	*42*	*100*	*61*
Manufacturing	*474*	98	66
Electricity, Gas and Water	*87*	97	73
Construction	*295*	99	74
Wholesale and Retail	*1,702*	96	71
Hotels and Restaurants	*1,118*	97	83
Transport and Communications	*437*	99	68
Financial Services	*223*	97	86
Business Services	*1,424*	98	74
Public Administration	*182*	98	82
Education	*887*	100	80
Health and Social Work	*1,255*	99	88
Arts and Other Services	*666*	97	73
Non-HPW employers			
Agriculture	*1,737*	50	39
Manufacturing	*3,047*	61	41
Electricity, Gas and Water	*440*	71	48
Construction	*3,466*	54	45
Wholesale and Retail	*6,260*	55	46
Hotels and Restaurants	*3,272*	60	55
Transport and Communications	*3,998*	59	49
Financial Services	*1,058*	70	60
Business Services	*5,090*	64	49
Public Administration	*306*	84	53
Education	*1,820*	92	70
Health and Social Work	*3,112*	86	77
Arts and Other Services	*2,994*	68	58

Base: All establishments in Module 1 by HPW classification.

Table A.6.3 Profile of private sector employers in each Product Market Strategy classification by country and sector

	Very Low	Low	Medium	High	Very High
Unweighted Base	*2,673*	*8,771*	*18,544*	*22,832*	*13,385*
	%	%	%	%	%
Country					
England	80	83	85	85	87
Northern Ireland	5	4	3	3	2
Scotland	9	8	7	8	7
Wales	6	5	5	4	4
Sector					
Agriculture	19	11	6	3	2
Manufacturing	5	6	6	8	8
Electricity, Gas and Water	1	1	1	1	1
Construction	15	13	11	9	7
Wholesale and Retail	20	24	23	23	22
Hotels and Restaurants	10	11	10	10	9
Transport and Communications	6	7	8	9	9
Financial Services	2	2	3	2	2
Business Services	17	19	23	24	25
Public Administration	*	*	*	*	*
Education	*	1	1	1	2
Health and Social Work	1	2	3	4	6
Arts and Other Services	3	4	5	5	7

Base: All private sector establishments in each PMS classification by country and sector.

'' denotes a figure greater than zero but smaller than 0.5.*

Table A.6.4 Volume of skill-shortage vacancies by Product Market Strategy classification and occupation

	Very low	Low	Medium	High	Very high
Unweighted Base	*2,673*	*8,771*	*18,544*	*22,832*	*13,385*
	%	*%*	*%*	*%*	*%*
Have vacancies	11	14	18	21	23
Have HtFVs	6	7	8	9	9
Have SSVs	4	5	6	7	7
Density of HtFVs (as % of vacancies)	47	42	35	37	34
Density of SSVs (as % of vacancies)	33	27	27	25	25
Density of SSVs (as % of HtFVs)	70	65	77	68	74

Base: All private sector establishments in each PMS classification

Table A.6.5 Training provision over the last 12 months by Product Market Strategy and size

Row percentages	*Unwtd Base*	**Any training**	**Proportion of staff trained**
		%	**%**
Very low PMS			
2-4	1,110	35	38
5-24	1,313	65	41
25-49	162	88	48
50-99	62	92	49
100-249	*18*	**	**
250+	*8*	**	**
Low PMS			
2-4	2,862	46	35
5-24	4,749	73	47
25-49	751	90	56
50-99	279	94	57
100-249	*98*	97	51
250+	*32*	*100*	*59*
Medium PMS			
2-4	4,660	49	39
5-24	10,543	76	51
25-49	2,006	91	59
50-99	893	94	59
100-249	*330*	94	63
250+	*112*	96	56
High PMS			
2-4	4,809	53	43
5-24	12,965	79	56
25-49	2,894	93	63
50-99	1,342	96	64
100-249	*648*	96	63
250+	*174*	97	69
Very high PMS			
2-4	2,454	57	50
5-24	7,413	80	59
25-49	1,960	93	65
50-99	919	96	65
100-249	*480*	95	66
250+	*159*	99	70

Base: All private sector establishments in each PMS classification by size.

'Proportion of staff trained' is shown as a proportion of all private sector employment

*'**' denotes figure not shown because of a low base (fewer than 25 respondents); Figures in italics denote base size smaller than 50: figures should be treated with caution*

Appendix B: National Time Series Tables

The UK Commission's Employer Skills Survey 2011, 2013 and 2015 was designed in such a way as to preserve key time series measures from the surveys carried out previously by the individual nations where possible.

The eligible employer population and weighting strategy in the 2013 survey was different to that used in 2011; therefore, the 2011 data has been reweighted to give comparable time series data. The 2015 survey follows the same strategy as that applied in 2013.

For the constituent nations of the UK, the degree to which we can track time series prior to 2011 depends on the approach the nation took to their predecessor skills survey.

England: England carried out the National Employer Skills Survey (NESS) biennially from 2005, and annually from 2001 prior to this. The population used in NESS matches that used in ESS 2013 (2+ employment), therefore we can make some comparisons over a longer time period. It should be noted that the weighting strategy of the NESS surveys was based on SSC sectors rather than the 14 broad SIC sectors used in 2011 and 2013, therefore some caution needs to be exercised when making comparisons with data prior to 2011.

Northern Ireland: The Northern Ireland Skills Monitoring Survey (NISMS) was conducted in 2005 and 2008 on a 1+employee population. This does not match the population used in ESS 2013, therefore no time series comparisons can be drawn prior to 2011.

Scotland: The Scottish Employer Skills Survey (SESS) ran annually from 2006 to 2010. The surveys were conducted using a 1+employee population which does not match the population used in ESS 2013, therefore no time series comparisons can be drawn prior to 2011.

Wales: Future Skills Wales (FSW) was conducted in 2005 on a 2+ employment population. This gives some scope to make comparisons with this point in time, however it should be noted that the weighting strategy employed in 2005 used different sector and size band definitions to those used in 2011, 2013 and 2015, therefore some caution needs to be exercised when making comparisons with the 2005 data.

England Time Series: Key Figures

	NESS 03	NESS 05	NESS 07	NESS 09	ESS 2011	ESS 2013	ESS 2015
Vacancies and skill-shortage vacancies							
% of establishments with any vacancies	17%	17%	18%	12%	14%	15%	**20%**
% of establishments with any hard-to-fill vacancies	8%	7%	7%	3%	5%	5%	**8%**
% with SSVs	n/a	5%	5%	3%	3%	4%	**6%**
% of all vacancies which are SSVs	n/a	25%	21%	16%	15%	22%	**23%**
Number of vacancies	679,000	573,900	619,700	385,700	501,200	559,600	**797,400**
Number of hard-to-fill vacancies	271,000	203,600	183,500	85,400	107,100	160,000	**262,300**
Number of skill-shortage vacancies	135,000	143,100	130,000	63,100	76,900	124,800	**180,200**
Skills gaps							
% of establishments with any staff not fully proficient	22%	16%	15%	19%	17%	15%	**14%**
Number of skills gaps	2.4m	1.26m	1.36m	1.70m	1.28m	1.17m	**1.18m**
Number of staff not fully proficient as a % of employment	11%	6%	6%	7%	6%	5%	**5%**
Training							
% of establishments training staff over the last 12 months	59%	65%	67%	68%	65%	66%	**66%**
% of establishments providing off-the-job training in the last 12 months	n/a	46%	46%	51%	47%	48%	**48%**
% of workforce trained	53%	61%	63%	56%	54%	62%	**63%**
Total number of training days	n/a	n/a	n/a	109m	97m	95m	**100m**

***Eurostat data used for calculating total training spend was subject to an adjustment in 2013, therefore no data is available prior to 2011 that is directly comparable with 2011 and 2013 data.*

Northern Ireland Time Series: Key Figures

	ESS 2011	ESS 2013	ESS 2015
Vacancies and skill-shortage vacancies			
% of establishments with any vacancies	10%	10%	**13%**
% of establishments with any hard-to-fill vacancies	3%	3%	**4%**
% with SSVs	2%	3%	**3%**
% of all vacancies which are SSVs	21%	19%	**14%**
Number of vacancies	18,400	15,200	**19,700**
Number of hard-to-fill vacancies	5,000	4,000	**4,200**
Number of skill-shortage vacancies	3,900	2,900	**2,800**
Skills gaps			
% of establishments with any staff not fully proficient	13%	14%	**9%**
Number of skills gaps	34,100	37,700	**24,000**
Number of staff not fully proficient as a % of employment	4%	5%	**3%**
Training			
% of establishments training staff over the last 12 months	65%	63%	**62%**
% of establishments providing off-the-job training in the last 12 months	48%	49%	**47%**
% of workforce trained	56%	59%	**64%**
Total number of training days	2.71m	2.69m	**2.60m**

Scotland Time Series: Key Figures

	ESS 2011	ESS 2013	ESS 2015
Vacancies and skill-shortage vacancies			
% of establishments with any vacancies	14%	15%	**19%**
% of establishments with any hard-to-fill vacancies	4%	6%	**8%**
% with SSVs	3%	4%	**6%**
% of all vacancies which are SSVs	15%	25%	**24%**
Number of vacancies	44,500	54,500	**73,600**
Number of hard-to-fill vacancies	9,100	18,200	**24,600**
Number of skill-shortage vacancies	6,700	13,400	**17,700**
Skills gaps			
% of establishments with any staff not fully proficient	21%	19%	**14%**
Number of skills gaps	121,000	135,100	**117,700**
Number of staff not fully proficient as a % of employment	5%	6%	**5%**
Training			
% of establishments training staff over the last 12 months	73%	70%	**71%**
% of establishments providing off-the-job training in the last 12 months	53%	53%	**52%**
% of workforce trained	58%	65%	**62%**
Total number of training days	9.8m	10.0m	**9.86m**

Wales Time Series: Key Figures

	FSW 05	ESS 2011	ESS 2013	ESS 2015
Vacancies and skill-shortage vacancies				
% of establishments with any vacancies	21%	12%	14%	**17%**
% of establishments with any hard-to-fill vacancies	10%	4%	5%	**7%**
% with SSVs	4%	3%	4%	**6%**
% of all vacancies which are SSVs	14%	18%	20%	**24%**
Number of vacancies	37,900	22,500	25,700	**36,500**
Number of hard-to-fill vacancies	13,200	6,600	7,200	**12,100**
Number of skill-shortage vacancies	5,400	4,000	5,100	**8,800**
Skills gaps				
% of establishments with any staff not fully proficient	18%	16%	16%	**14%**
Number of skills gaps	63,800	53,900	67,400	**53,800**
Number of staff not fully proficient as a % of employment	6%	5%	6%	**5%**
Training				
% of establishments training staff over the last 12 months	n/a	63%	62%	**63%**
% of establishments providing off-the-job training in the last 12 months	n/a	47%	47%	**49%**
% of workforce trained	n/a	56%	62%	**64%**
Total number of training days	n/a	4.93m	5.56m	**5.40m**

n/a: question not asked or not asked in a comparable manner in previous years' surveys

Appendix C: Industry coding

During the sampling and weighting process, each establishment was allocated to one of 15 sectors, based on their Standard Industrial Classification (SIC). SIC 2007 was used to classify establishments using the following method. Using the four-digit Standard Industrial Classification (SIC) supplied for each record from the Experian database, a description of business activity was read out to each respondent. If they agreed that this description matched the main activity undertaken at the establishment, then the SIC on Experian's database was assumed to be correct. If however, the respondent felt the description did not correspond to their main business activity at the site (which about a quarter reported), a verbatim response was collected to find out what they do (see question A7 on the survey; questionnaire shown in the accompanying Technical Report). At the analysis stage this was coded to a four-digit SIC which was then used as the basis for allocation into sector. For the purposes of reporting, Mining & Quarrying were merged with Manufacturing to create 'Manufacturing', while Transport and storage and Information and Communications were merged to create 'Transport, storage and communications'. The final sector, which in previous iterations of the survey has been classified as 'Other Community, Social and Personal Services', has been renamed to 'Arts, Entertainment, Recreation and Other Service activities', in line with ONS guidance.

The table below shows the 15 sectors and their corresponding SIC 2007 definitions.

Sector	SIC 2007
1. Agriculture	A - Agriculture, forestry and fishing (01-03) Including farming, hunting and other related service activities, forestry and logging, fishing and aquaculture
2. Mining & Quarrying	B - Mining and quarrying (05-09) Including mining of coal, metals, sand/stone/clay, and extraction of crude petroleum and natural gas
3. Manufacturing	C - Manufacturing (10-33)

Sector	SIC 2007
	Including manufacture of food and beverage, textiles, chemicals and chemical products, basic pharmaceutical products, other mineral products, manufacture of metals and metal products, machinery, computer and electronic products and equipment, motor vehicles and other transport equipment, furniture, and repair and installation of machinery and equipment
4. Electricity, Gas and Water	D - Electricity, gas, steam and air conditioning supply (35) E - Water supply, sewerage, waste management and remediation activities (36-39) Including electric power generation, transmission and distribution, manufacture of gas and distribution of gaseous fuels, steam and air conditioning supply, water collection, treatment and supply, sewerage and waste collection, treatment and disposal activities and materials recovery
5. Construction	F - Construction (41-43) Including the construction of buildings, civil engineering (constructing roads, railways and other utility projects), demolition, and specialised activities such as electrical installation, roofing and scaffold erection
6. Wholesale and Retail	G - Wholesale and retail trade; repair of motor vehicles and motor cycles (45-47) Including sale, maintenance and repair of motor vehicles, parts and accessories, non-vehicle wholesale (for example agriculture, food, household goods), and the retail trade of all products whether in stores, stalls, markets, mail order or online
7. Transport and Storage	H - Transportation and storage (49-53) Including land, water and air transport (passenger and freight), warehousing and support activities for transportation, postal and courier activities
8. Hotels and Restaurants	I - Accommodation and food service activities (55-56)

Sector	SIC 2007
	Including hotels, campsites, youth hostels, holiday centres, villages and other short stay accommodation, restaurants and takeaways, event catering and licensed clubs, pubs and bars
9. Information and Communications	J - Information and communication (58-63) Including publishing (books, journals, newspapers etc. and software/computer games), television, film and music production, broadcasting, telecommunications, computer programming and consultancy, information service activities (e.g. data processing and hosting)
10. Financial Services	K - Financial and insurance activities (64-66) Including banks and building societies, activities of holding companies, trusts, funds and similar financial entities, credit granting, pensions, insurance and reinsurance
11. Business Services	L - Real estate activities (68) M - Professional, scientific and technical activities (69-75) N - Administrative and support service activities (77-82) Including the buying, selling and renting of real estate, legal activities, accounting, bookkeeping and auditing, management consultancy, architectural and engineering activities, scientific research and development, advertising and market research, specialist design, photographic activities, translation and interpretation, veterinary activities, renting and leasing of tangible goods (motors, household, machinery), employment agencies, travel agencies and tour operations, security and investigation activities, office administration and business support
12. Public Administration	O - Public administration and defence; compulsory social security (84)

Sector	SIC 2007
	Including administration of the State and economic and social policy of the community, provision of services to the community as a whole such as defence activities, foreign affairs, justice and judicial activities, fire service and compulsory social security activities
13. Education	P - Education (85) Including pre-primary, primary, secondary and higher education, other education (such as sports, driving schools, cultural education), educational support activities
14. Health and Social Work	Q - Human health and social work activities (86-88) Including Hospitals, medical and dental practices, residential care, social work activities
15. Arts, Entertainment, Recreation and Other Service activities	R - Arts, entertainment and recreation (90-93) S - Other service activities (94-96) Including performing arts, libraries and museums, gambling and betting, sports facilities, amusement and recreation activities, activities of membership organisations (religious, political, trade union, professional), personal services (hairdressing, beauty, textile cleaning, well-being activities, funeral activities)
NOT COVERED IN SURVEY	T - Activities of households as employers; undifferentiated goods and services producing activities of households for own use (97-98) U - Activities of extraterritorial organisations and bodies (99) Including households as employers of domestic personnel, private households producing goods for own use

Appendix D: Occupational Coding

The occupational data collected in the survey were collected both pre-coded and verbatim. The former included the occupational breakdown of employment (question D5 to D8) where respondents were asked how many of their workforce fell into each of the nine major (one-digit) Standard Occupation Classification (SOC) 2010 categories (Managers, Directors and Senior Officials through to Elementary occupations). However, on vacancy measures (for example the occupations in which vacancies exist – question C2) this information was collected verbatim. This was then coded at the analysis stage, where possible to a four-digit level SOC, if not three, two- or one-digit level.

Examples of what might fall into each occupational band are as follows:

Occupational group	Primary sectors (Agriculture, manufacturing, construction etc.)	Service sectors (retail, business, finance, transport etc.)	Public sector (Public Admin, Health, Education etc.)
Managers, Directors and Senior Officials	Site managers, Department Heads, Shift Managers (not supervisors)	Directors, Managers / Branch/site managers, shift managers (not supervisors	Police inspectors and above, department heads, Head teachers, Senior Officials
Professionals	Professional engineers, software and IT professionals, accountants, chemists, scientific researchers	Solicitors, lawyers, accountants, IT professionals, economists, architects, actuaries	Doctors, nurses, midwives, teachers, social workers, librarians
Associate Professionals	Science and engineering technicians, lab technicians, IT technicians, accounting technicians	Insurance underwriters, finance/investment analysts and advisers, writers/journalists, buyers, estate agents	Junior police/fire/prison officers, therapists, paramedics, community workers, H&S officers, housing officers
Administrative staff	Secretaries, receptionists, PAs, telephonists, bookkeepers	Secretaries, receptionists, PAs, communication operators, market research interviewers, clerks	Secretaries, receptionists, PAs, local government officers and assistants, office assistants, library and database assistants
Skilled Trades	Farmers, electricians, machine setters / tool makers, carpenters, plasterers	Motor mechanics, printers, TV engineers, butchers	Chefs
Caring, Leisure and Other Service Occupations	Care assistants, nursery nurses	Travel agents, travel assistants, hairdressers, housekeepers	Care assistants, home carers, nursery nurses, ambulance staff, pest control, dental nurses, caretakers
Sales and customer service occupations	Customer facing roles: sales staff and call centre agents	Sales assistants and retail cashiers, telesales, call centre agents	Customer care operations
Process, plant and machine operatives	Routine operatives, drivers, machine operators, sorters and assemblers	HGV, van, fork-lift, bus and taxi drivers	Drivers, vehicle inspectors
Elementary occupations	Labourers, packers, goods handling and storage staff	Bar staff, shelf fillers, catering assistants, waiters/waitresses, cleaners	Labourers, cleaners, road sweepers, traffic wardens, security guards

Appendix E: Sampling Error and Statistical Confidence

Sampling errors for the survey results overall and for key sub-groups are presented in the table below. 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 +/- 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'.

As a note, the calculation of sampling error has taken into account the finite population correction factor to account for cases where we are measuring a significant portion of the population universe (i.e. even if two sample sizes are the same, the sampling error will be lower if in one case a far higher proportion of the population was covered).

These confidence intervals are based on the assumption of a normal distribution of responses.

Sampling error (at the confidence 95 per cent level) associated with findings of 50 per cent

	Population	Number of interviews	(Maximum) Sampling Error
Overall	**1,766,838**	**91,210**	**+/-0.32**
By country			
England	1,488,171	75,129	+/-0.36
Northern Ireland	54,518	4,019	+/-1.55
Scotland	142,947	6,035	+/-1.26
Wales	81,202	6,027	+/-1.26
By size of establishment			
2-4	907,944	20,527	+/-0.68
5-24	668,618	49,584	+/-0.44
25-49	101,082	11,657	+/-0.91
50-99	50,432	5,836	+/-1.28
100-249	26,900	2,689	+/-1.89
250+	11,812	917	+/-3.24
By sector			

	Population	Number of interviews	(Maximum) Sampling Error
Agriculture	97,359	3,632	+/-1.63
Manufacturing	100,262	6,998	+/-1.17
Electricity, Gas and Water	10,151	1,041	+/-3.04
Construction	158,790	7,474	+/-1.13
Wholesale and Retail	371,231	16,126	+/-0.77
Hotels & Restaurants	159,893	8,920	+/-1.04
Transport and Communications	128,789	8,936	+/-1.04
Financial Services	38,259	2,549	+/-1.94
Business Services	363,790	13143	+/-0.85
Public Administration	19,814	947	+/-3.18
Education	58,124	5,515	+/-1.32
Health and Social Work	132,505	8,556	+/-1.06
Arts and Other Services	127,871	7,373	+/-1.14

Appendix F: Weighted base sizes

Number of employers…	UK	England	NI	Scotland	Wales
Overall	**1,766,868**	**1,488,201**	**54,518**	**142,947**	**81,202**
Chapter 2: Employers' experience of skill shortages					
With a vacancy	341,549	293,439	7,256	27,079	13,775
With a hard-to-fill vacancy	134,861	115,653	2,426	11,004	5,777
With a skill-shortage vacancy	100,223	85,525	1,803	8,284	4,612
Chapter 3: Retention difficulties					
With any jobs in which have difficulties retaining staff	149,680	124,013	3,878	14,442	7,347
Chapter 4: The Internal Skills Challenge					
With at least one skills gap	246,330	210,820	5,098	19,315	11,097
Chapter 5: Under-utilisation					
With at least one employee with more qualifications and skills than job role requires	529,470	440,463	15,499	46,305	27,203
Chapter 6: Employer Investment in Training and Skills					
Providing any training	1,163,955	976,742	33,769	101,981	51,463
On-the-job training only	305,494	258,210	7,962	28,001	11,321
Off-the-job training only	233,759	195,488	7,111	19,761	11,400
Both on- and off-the-job training	624,702	523,044	18,697	54,219	28,742
Providing no training for staff	602,913	511,459	20,749	40,966	29,739
Providing training towards nationally recognised qualifications	546,682	459,058	14,687	45,326	27,611
Chapter 7: HPW and PMS					
14 out of 21 HPW practices	215,392	184,466	4,961	16,665	9,299
Very high / high / medium PMS	1,064,335	909,047	29,486	80,570	45,232
Very high / high PMS	689,724	591,534	17,589	53,028	27,573
Very low / low PMS	254,443	209,738	9,754	20,576	14,374

Base: All establishments

Appendix G: Unweighted base sizes

		Establishments with…				
	Overall	Vacancies	Hard-to-fill vacancies	Skill-shortage vacancies	Skills gaps	Estab's that train
UK	91,210	24,306	9,223	6,831	18,265	69,541
Country						
England	75,129	20,697	7,857	5,801	15,409	57,422
Northern Ireland	4,019	713	228	172	520	2,869
Scotland	6,035	1,619	612	453	1,236	4,894
Wales	6,027	1,277	526	405	1,100	4,356
Size						
2-4	20,527	1,869	869	645	1,240	10,317
5-24	49,584	11,864	4,733	3,517	10,084	39,461
25-99	17,493	8,151	2,820	2,044	5,478	16,289
100-249	2,689	1,759	585	446	1,064	2,584
250+	917	663	216	179	399	890
Sector						
Agriculture	3,632	207	98	67	292	1,871
Mining and Quarrying	171	23	7	4	23	140
Manufacturing	6,827	1,582	735	618	1,674	4,915
Electricity, Gas and Water	1,041	221	86	76	163	796
Construction	7,474	1,173	552	461	1,132	5,044
Wholesale and Retail	16,126	3,753	1,154	850	3,669	11,470
Hotels and Restaurants	8,920	3,420	1,288	844	2,610	6,849
Transport and Communications	8,936	1,993	887	711	1,345	5,981
Financial Services	2,549	472	133	106	435	1,920
Business Services	13,143	3,859	1,534	1,285	2,601	10,623
Public Administration	947	276	78	44	200	851
Education	5,515	2,073	666	486	1,211	5,300
Health and Social Work	8,556	3,152	1,242	793	1,663	7,941
Arts and Other Services	7,373	2,102	763	486	1,247	5,840
Occupation						
Managers	87,590	23,762	8,961	6,655	17,829	67,471
Professionals	17,483	6,830	2,599	2,050	4,112	15,752
Associate Professionals	13,309	5,248	1,896	1,566	3,597	11,709
Administrative/ Clerical staff	53,622	16,277	6,196	4,743	11,874	43,913
Skilled Trades occupations	24,025	7,677	3,396	2,651	6,303	19,318
Caring, Leisure and Other Services	15,310	6,123	2,380	1,560	3,348	14,252
Sales and Customer Services	25,940	8,343	2,797	2,189	7,002	20,725
Machine Operatives	14,105	4,095	1,793	1,434	3,690	11,282
Elementary staff	31,970	10,938	4,186	3,005	8,409	26,499

Appendix H: A Note on Proficiency and Skills Gaps

To ascertain the number of staff with skills gaps, respondents were asked, for each major (one-digit SOC 2010) occupation where they employed staff, how many of those they employed were fully proficient. If respondents asked for clarification, then a proficient employee was described as 'someone who is able to do their job to the required level'. 'Proficient employee', however, is clearly a subjective and relative term to the extent that:

- different managers in an organisation may have different views on whether an individual member of staff is able to do the job to the required level. Indeed, they may have different views on what the required level is that the organisation is looking for within an occupational category.
- an employee could be regarded as fully proficient but if the requirements of the job change (for example, some new machinery or technology is introduced) then they could be regarded as not being able to do their job to the required level, despite the fact that their skills were unchanged.
- the same is true if a person were to be promoted to a more demanding position – the company might go from having no skills gaps to saying that this newly promoted member of staff was not fully proficient in the new job, despite having the same proficiency as before.
- different companies may be more demanding and 'critical' of their staff than others: an individual considered fully proficient by one company might be seen as having a skills gap if performing the same role to the same standard in another company.

A final point to note is that the survey categorises all staff as either fully proficient or not: it takes no account of the range that can clearly exist between those who are very nearly proficient and those who significantly lack the skills that employers require. While from a policy perspective, therefore, there is clearly interest in raising the skill levels of the workforce, survey data can only identify changes year on year in the proportion of staff reported as fully proficient, not cases where skills levels have been raised but where staff still remain below full proficiency.

Appendix I: Technical Appendix

A full Technical Report accompanies this document and can be downloaded from the UKCES website or obtained by contacting UKCES directly. This appendix provides brief details on the key areas of sampling, fieldwork and analysis.

The survey comprised two facets:

- Wave 1: the main skills survey, covering business strategy, retention, recruitment, skills gaps and high performance working;
- Wave 2: covering the financial investment establishments make in training their staff.

Employer Skills Survey: Wave 1

Sampling

The sample design was based on a three-dimensional grid, crossing size band (defined by employment) by 15 broad SIC-based sectors (see Appendix C for definitions) within region (9 English GOR regions, Northern Ireland, Scotland and Wales). Quotas were set on this basis, proportioned to give a robust base size in each subgroup of the overall sample. To ensure coverage at a local level, quota targets were also set for each Local Authority (LA) grouped according to the Local Education Authority (LEA) definitions[41] in proportion to the population that each LEA accounted for in each GOR.

91,210 interviews were carried out in total:

Country	Number of interviews
England	75,129
Northern Ireland	4,019
Scotland	6,035
Wales	6,027

[41] Targets were set LA grouped to 151 LEAs (the Cornwall and Isles of Scilly LEAs were combined due to the limited business population in Isles of Scilly).

Fieldwork

A total of 91,210 interviews were conducted by telephone using computer-assisted telephone interviewing (CATI) technology. Fieldwork across the regions was undertaken by three research agencies, as follows:

Agency	Regions
BMG	East of England
	North West
	South West
	Northern Ireland
IFF Research	London
	South East
	Yorkshire and the Humber
	Wales
	Large multisites*
Ipsos MORI	East Midlands
	North East
	West Midlands
	Scotland

Interviews were conducted with the most senior person at the site with responsibility for recruitment, human resources and workplace skills.

Fieldwork took place from March to July 2015.

Response rate

The overall response rate for the survey was 42 per cent, calculated as a proportion of all completed contacts. A detailed breakdown of survey outcomes in shown below:

Outcome	Number of contacts	% of all sample	% of complete contacts
Total sample	***742,599***	**100**	
Ineligible establishments (e.g. just 1 working proprietor at site)	44,640	6	
'Live' / not available during fieldwork / Out of quota	391,591	53	
Unobtainable / invalid numbers	90,095	12	
Total complete contacts	***216,273***	***29***	***100***
Achieved interviews	91,210	12	42
Respondent refusal	116,678	16	54
Quits during interview	8,386	1	4

Questionnaire design

Following a review of the 2011 and 2013 ESS questionnaires by UKCES and their partners, and given the need for time series comparisons, the questionnaire used for ESS 2015 did not require substantial redevelopment. Nevertheless, an extensive questionnaire review took place at the outset of the research process with a particular emphasis on:

1. Developing the list of skills used in the survey to better understand the skills lacking in the workforce and among applicants;
2. Considering the introduction of an online resource to assist employers in accurately categorising their workforce into the nine occupational classifications used in the survey;
3. Reviewing the core under-utilisation measure, and inclusion of a set of questions to understand the causes and implications of skills under-utilisation;
4. Developing new training questions to capture provision of online, e-learning and other self-learning training, and how use of these training methods has changed over time.

Another key change from the 2013 survey was the inclusion of retention questions, in place of those relating to upskilling. The 2011 survey included a question relating to retention, and this module of questions was originally intended to rotate in alternate surveys with the upskilling questions which appeared in the 2013 survey.

A full list of the changes between the questionnaires used in the 2013 and 2015 Employer Skills Surveys, along with the reasons for these alterations, can be found in Appendix C in the full Technical Report[42].

The rationale for the changes to the skill descriptors is detailed below.

Changes to Skills descriptors

During the Autumn of 2014 UKCES commissioned the National Institute of Economic and Social Research (NIESR) to undertake a review of the skill descriptors used in the 2011 and 2013 Employer Skills Surveys. A total of 13 skill descriptors were used in 2011 and 2013 concerning the skills lacking among applicants (question C13).

The NIESR review was undertaken amid concern that the existing information collected has not been sufficiently detailed to allow for the formulation of specific, actionable responses to address the skill issues identified in the survey. Another reason was that the survey could improve its coverage of the higher-level skills that underpin innovative business practices. In addition, the review sought to assess whether there were opportunities to harmonise the skill descriptors used with those of other international studies.

Some key international surveys (e.g. SES[43], PIAAC[44], and CEEDEFOP[45]) were taken into consideration during the review, to provide useful pointers as to how the list of descriptors in ESS might usefully be expanded. Taking the strengths of these surveys into consideration (and the perceived weaknesses of the ESS skills 2011 and 2013 skill descriptors), the NIESR review recommended transitioning to an expanded list of 21 skill descriptors split across two broad themes:

- skills relating to using information, equipment and materials; and
- skills relating to dealing with people.

[42] https://www.gov.uk/government/publications/ukces-employer-skills-survey-2015-uk-results
[43] Skills and Employment Surveys (SES)
[44] OECD's Programme for the International Assessment of Adult Competencies (PIAAC)
[45] CEDEFOP Employer Survey on Skill Needs

Following cognitive testing and piloting[46] to develop the wording and phrasing of the skills so that they would be understood by employers, a list of 24 items[47] was used for the main survey (see the table below).

Using information, equipment and materials	Dealing with people
• Computer literacy / basic IT skills	• Instructing, teaching or training people
• Advanced or specialist IT skills	• Sales skills
• Solving complex problems requiring a solution specific to the situation	• Customer handling skills
• Reading and understanding instructions, guidelines, manuals or reports	• Persuading or influencing others
• Writing instructions, guidelines, manuals or reports	• Team working
• Basic numerical skills and understanding	• Managing or motivating other staff
• More complex numerical or statistical skills and understanding	• Ability to manage own time and prioritise own tasks
• Communicating in a foreign language	• Setting objectives for others and planning human, financial and other resources
• Manual dexterity – for example, to mend, repair, assemble, construct or adjust things	• Managing their own feelings, or handling the feelings of others
• Adapting to new equipment or materials	• Making speeches or presentations
• Knowledge of products and services offered by your organisation and organisations like yours	
• Knowledge of how your organisation works	
• Specialist skills or knowledge needed to perform the role	

[46] Twenty cognitive interviews and 100 pilot interviews were undertaken. Further details of the cognitive testing and piloting of the survey are provided later in the report.
[47] There were 26 pre-coded options for workplaces located in Wales, as two items were added on Welsh language skills under the 'using information, equipment and materials' list.

It was agreed to treat ESS 2015 as a transitional year for the implementation of this expanded list of skill descriptors. That is to say that once an employer's answers identified them as having at least one skill-shortage vacancy and/or at least one internal skills gap they would be randomly assigned to be asked either the 'old' list of skill descriptors used in 2013 or the 'new' list of skill descriptors. This approach was taken in order to allow for time series analyses against 2013, whilst allowing for a full transition to the new list of skill descriptors in the next iteration of the survey.

Weighting / Grossing up

Data for the survey was weighted and grossed up to population estimates of establishments and to the population of employees, as derived from the 2014 Inter-Departmental Business Register (IDBR).

The grossing-up procedure on which this report has been based was undertaken at a regional level; within each region grossing up took place on a broad 15 sector and seven size band interlocking grid (i.e. 105 cells for each geographic region). In instances where no interviews had been completed in a cell but the IDBR indicated establishments existed, and in instances where a low number of interviews were conducted in relation to the population of that cell, cells were merged primarily within size band (i.e. across industries) but where necessary across size band as well.

Employer Skills Survey: Investment in Training follow-up

A separate Investment in Training study was conducted by IFF Research to provide detailed estimates of employer expenditure on training. The approach replicated that of previous Cost of Training studies in England and Northern Ireland.

Sampling

At the end of the UK ESS Wave 1 questionnaire those respondents who had arranged or funded training for their staff in the previous 12 months were asked if they would be willing to take part in a follow up study on training expenditure. Those agreeing to participate formed the sample for this follow-up survey.

Quotas were set on the basis of training type by size within region. Due to limited sample a census approach was taken in the devolved administrations.

Fieldwork

Employers who had indicated agreement to take part were called by an IFF interviewer to confirm participation and contact details. They were then sent a datasheet via email or fax containing the questions that were to be asked in the full interview (a copy of which can be seen below). Sending this datasheet in advance allowed the respondent time to collect the relevant information and increase the accuracy of responses. A few days after sending, an interviewer called back to conduct the full interview.

In total, information on training expenditure was collected from 13,197 establishments, though 583 were rejected because of incompleteness (a large number of 'don't know'); hence analysis is based on data from 12,614 establishments.

Fieldwork was undertaken by IFF Research from 1st May to 26th August 2015.

Weighting/grossing up

In order to weight the Investment in Training study, population figures were calculated from weighted UK ESS Wave 1 data which had in turn been weighted using the IDBR figures used for the main survey analysis. Data was weighted on the basis of interlocking grids on size by sector by the type of training they carried out, with a regional rim weight.

Data modelling

In order to weight the Investment in Training study, population figures were calculated using the core ESS 2015 survey data (which had in turn been weighted using the IDBR figures used for the main survey analysis). Data were weighted on the basis of interlocking grids on seven size bands by 14 SIC sectors (as in the core survey, but with Mining and Quarrying merged with Manufacturing), by the type of training they carried out (on-the-job only, off-the-job only, or both).

A regional RIM weight was then applied using targets based on the proportion training in the English GOR regions, Northern Ireland, Scotland and Wales. An additional step was also undertaken in 2015: an adjustment was applied to each weight to ensure that the profile of size band within country was correct. This was in order to ensure establishment size was accurately represented at a country as well as a UK level, increasing the accuracy of the spend figure within countries[48].

[48] A technical paper with a more detailed description of the Investment in Training weighting approach is available on the UKCES website.

Only establishment-based weights were created for the Investment in Training survey, as all data in the survey are establishment orientated.

Questionnaire design

Given the need to closely replicate the Investment in Training studies undertaken in the UK in 2011 and 2013, and previously in England in 2005, 2007 and 2009, and also in Northern Ireland in 2008, the datasheet was largely unchanged compared to that used for these previous surveys.

The only change made to the telephone questionnaire was the addition of one new question, Q25, to estimate the amount spent by establishments on online training or e-learning, including the costs incurred purchasing or developing online or e-learning. This question was asked of those who identified in the core ESS 2015 interview that they had arranged or funded training for staff in the last 12 months which involved online training or e-learning. Q25 was not added to the datasheet due to the more straightforward nature of the information required, and to avoid alteration of the components of the investment in training survey.

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Evidence Reports present detailed findings of the research produced by the UK Commission for Employment and Skills. The reports contribute to the accumulation of knowledge and intelligence on skills and employment issues through the review of existing evidence or through primary research.

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