Department for Education

Employer skills survey 2017

Research report

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Mark Winterbotham, David Vivian, Genna Kik, Jessica Huntley Hewitt, Mark Tweddle, Christabel Downing, Dominic Thomson, Naomi Morrice and Sam Stroud

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The UK Employer Skills Survey 2017 is one of the largest business surveys in the world and many individuals and organisations have been involved in its design and execution.

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Mark Winterbotham

Director, IFF Research Ltd.

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Key findings across the ESS series (2011 – 2017)

	2011	2013	2015	2017
Vacancies and skill-shortage vacancies (SSVs)				
% of establishments with any vacancies	14%	15%	19%	**20%**
% of establishments with any hard-to-fill vacancies	4%	5%	8%	**8%**
% of establishments with SSVs	3%	4%	6%	**6%**
% of all vacancies that are SSVs	16%	22%	23%	**22%**
Number of vacancies	587,000	655,000	927,000	**1,007,000**
Number of skill-shortage vacancies	91,000	146,000	209,000	**226,000**
Skills gaps				
% of establishments with any staff not fully proficient	17%	15%	14%	**13%**
Number of skills gaps	1,485,000	1,410,000	1,380,000	**1,267,000**
Number of staff not fully proficient as a % of employment	6%	5%	5%	**4%**
Training				
% of establishments training staff over the last 12 months	65%	66%	66%	**66%**
% of establishments providing off-the-job training in the last 12 months	47%	49%	49%	**48%**
% of workforce trained	55%	62%	63%	**62%**
Total days training	115m	113m	118m	**114m**
Training days per employee	4.2	4.2	4.2	**4.0**
Total training expenditure†	£43.8bn	£41.1bn	£43.6bn	**£44.2bn**
Training expenditure per employee†	£1,600	£1,500	£1,600	**£1,500**

Vacancies, skill-shortage vacancies and skills gaps rounded to the nearest 1,000.

†Training spend data has been adjusted for inflation and are at 2017 prices.

Executive Summary

Introduction

The UK Employer Skills Survey (ESS) is one of the largest business surveys in the world, with the data in this report based on survey responses from over 87,000 employers. This research provides a comprehensive source of intelligence on the skills challenges that UK employers face both within their existing workforces and when recruiting, the levels and nature of investment in training and development, and the relationship between skills challenges, training activity and business strategy.

The 2017 survey is the fourth in a series conducted biennially since 2011 (with nation-specific skills surveys pre-dating this). The ESS series therefore provides rich labour market intelligence from the period when the UK economy was emerging from the recession of the late 2000s, to more recent years when the UK has experienced relatively sustained economic growth and high levels of job creation.

The latest survey was carried out between May and October 2017. Employers with at least two people on the payroll were in scope, and interviews were conducted at an establishment level with the most senior person at the site with responsibility for human resources and workplace skills.

Recruitment and skill-shortage vacancies

Levels of recruitment activity provide an indication of growth and change in the labour market and wider economy. Recruitment activity has continued to grow since 2015, with one in five UK employers (20%) having any vacancies at the time of fieldwork (a one percentage point increase from 2015), with these employers reporting a total of just over one million vacancies (1,007,000), a 9% increase on the figure in 2015.

Growth in recruitment activity was evident across most of the UK; most notably in Northern Ireland which had the largest proportional increase compared with 2015 in the number of vacancies reported (an 18% increase). The exception was in Wales where the number of vacancies was unchanged from two years ago.

When employers have vacancies, potential employees are either able and willing to meet employer requirements, or they are not. In line with previous years, a third of vacancies in the UK (33%) were considered hard to fill. When employers struggle to fill vacancies, this is often due to a lack of the required skills, qualifications or experience among applicants. Collectively these are known as ‘skill-shortage vacancies’. Although relatively few employers experienced them at the time of the survey (6%, the same proportion as in 2015), these employers reported a range of impacts resulting from them, including:

increased workloads for other staff; loss of business or orders to competitors; delays developing new products or services; and difficulties introducing new working practices.

There has been an 8% increase in the number of skill-shortage vacancies compared with 2015: from 209,000 to 226,000. This increase in the number of skill-shortage vacancies was similar to the proportional increase in vacancies, meaning the density of skill-shortage vacancies (i.e. the proportion of vacancies that were hard to fill because of reported skill shortages) has remained stable since 2013 at 22%.

There was variation by country. In England and Scotland the prevalence of skill-shortage vacancies was very similar to 2015 and largely mirrored the UK picture. In Wales there has been a three percentage point increase in the density of skill-shortage vacancies (from 24% to 27%), and in Northern Ireland the density of skill-shortage vacancies increased from 14% in 2015 to 21% in 2017 (a return to the level reported in 2011).

Reported skill shortages when recruiting were particularly prevalent in certain sectors. They were most numerous in the Business Services sector (just under 52,000 at the time of the survey), though as a proportion of all vacancies in the sector, the density of such vacancies was highest in Construction where over a third of vacancies (36%) were considered skill-shortage vacancies (a similar level to 2015).

By occupation, employers were most likely to have experienced skills-related difficulties when recruiting for Skilled Trades positions (such as chefs, electricians, and vehicle technicians). Around two in every five Skilled Trades vacancies were proving hard to fill for skills related reasons (42%). This occupation has had the highest density of skill-shortage vacancies in all previous iterations of the ESS series.

The skills that employers found to be lacking among applicants ranged across both technical and practical skills, and people and personal skills. On the technical side, employers reported a lack of digital skills, skills related to operational aspects of the role, and a lack of complex analytical skills. The main people and personal skills lacking predominantly related to self-management skills, management and leadership, and sales and customer handling skills.

The skills lacking among applicants vary quite substantially depending on the role. For instance, the skills disproportionately reported to be lacking among applicants for Skilled Trades positions included manual dexterity and the ability to adapt to new equipment or materials. Whereas the skills disproportionately lacking for Professionals included advanced IT skills and complex analytical skills.

The majority of hard-to-fill vacancies (67%) are caused, at least in part, by a lack of skills, qualifications and experience among applicants. However, vacancies can also prove hard to fill for other reasons. Such reasons principally include a lack of applicants for the role (something which may be skills related if applicants do not apply because the

advertised role has high and clearly stated requirements), or specific issues related to the job role (e.g. unattractive terms and conditions or unsociable hours) or the employer (e.g. remote location or poor transport links).

Overall there were around 110,000 vacancies that employers were finding hard-to-fill *exclusively* for reasons unrelated to applicants' skill levels (11% of all vacancies). This represents an 18% increase on the number of these vacancies reported in 2015, far higher than the increase in the overall number of vacancies (9%), suggesting a growing general (non-skills-related) recruitment challenge in the economy.

By sector the proportion of vacancies proving hard to fill exclusively for non-skills-related reasons was highest in Health and Social Work (19%, up from 13% in 2015). In this sector the density of skill-shortage vacancies has remained fairly static in recent years, indicating that difficulties filling vacancies in this sector are increasingly due to non-skills-related reasons.

Among employers who had vacancies that were proving hard to fill, one in three (34%) had attempted to recruit EU nationals to try to help overcome recruitment difficulties. This was a particularly common way of trying to fill hard-to-fill vacancies in the Hotels and Restaurants sector (53%).

Skills gaps in the workplace

Alongside skill shortages that may be experienced when recruiting, employers may also experience skills gaps in their existing workforce. This internal skills challenge arises when employees lack proficiency to fulfil their role. Such skills gaps, where persistent, may hinder an employer's ability to function to its full potential in terms of productivity and profitability.

Although most employers in the UK considered their existing workforce to be fully proficient, 13% reported skills gaps in their workforce and approximately 1.27 million staff lacking full proficiency in their role (equivalent to 4.4% of the total UK workforce). This continues a trend of a steady decline over the course of the ESS series both in the proportion of employers reporting skills gaps (from 17% in 2011), and in the proportion of the workforce considered to lack proficiency (from 5.5% in 2011).

There is some variation in this trend by nation. Whilst the density of skills gaps (i.e. the proportion of the workforce lacking full proficiency) has decreased over time in England, it has remained largely unchanged since 2015 in Scotland and Wales (a skills gap density of 5.0% and 4.7% respectively). In Northern Ireland the proportion of the workforce with skills gaps has increased slightly since 2015 (from 3.3% to 3.8%), though is still below the levels reported in 2011 and 2013.

The overall decrease in skills gap density at a UK level was broadly reflected across most sectors of the economy. Hotels and Restaurants (6.7%) and Manufacturing (5.8%) were again the two sectors with the highest proportions of their workforce lacking full proficiency, albeit at lower levels than in 2015. The largest decrease in the density of skills gaps was in the Public Administration sector (from 6.4% in 2015 to 3.9% in 2017). Two sectors which saw an increase in the density of skills gaps were Financial Services (from 3.7% in 2015 to 5.0% in 2017), and Primary Sector and Utilities (from 3.8% to 4.7%).

At an occupational level, skills gaps continued to be more prevalent in what might be described as ‘labour intensive’ roles (i.e. Elementary occupations and Machine Operatives) and ‘service intensive’ occupations (i.e. Caring, Leisure and Other Services staff and Sales and Customer Service staff).

Transient factors, such as staff being new to the role or training only being partially complete, were a contributing cause of most skills gaps (76%): one would expect these skills gaps to be resolved over time. While the proportion of skills gaps caused at least partly by transient factors has increased slightly since 2015 (73%), the proportion that were exclusively attributed to transient causes remained unchanged at 22%.

Other causes of skills gaps included staff lacking motivation (a contributing factor for 32% of all skills gaps), staff performance not improving following training (31%), and staff not receiving appropriate training (25%). Skills gaps may also be a by-product of organisational innovation, such as the introduction of new working practices, new technology, and new products or services. However, the proportion of skills gaps attributed to these factors has declined since 2015 (34% in 2017 compared with 37% in 2015).

Two-thirds of employers with skills gaps (66%) reported that lack of proficiency among their staff was impacting the performance of their organisation, mainly through increased workloads for other staff, followed by higher operating costs and difficulties meeting quality standards.

Most employers with skills gaps (85%) had taken steps to try to improve the proficiency of their staff, most commonly through increased training activity. A further 5% of employers with skills gaps had not yet acted in response to skills gaps but planned to do so in the future. One in seven employers with skills gaps (14%) had looked to recruit EU nationals in response to their internal skills challenge; this was most common in the Hotels and Restaurants sector (27%).

As was the case in 2015, the most common skill lacking among staff was time-management and prioritisation of tasks, contributing to nearly three-fifths of all skills gaps (59%). Other causes of skills gaps included deficiencies in sales and customer skills, and a lack of knowledge of an organisation’s products, services and processes (both 49%).

Reported deficiencies in complex analytical skills (43%) and digital skills (35%) were less prevalent than in 2015. Specifically, the proportion of skills gaps caused by a lack of proficiency in advanced or specialist IT skills fell from over a quarter in 2015 (27%) to less than a fifth in 2017 (19%). Deficiencies in digital skills disproportionately affected Administrative and Clerical staff (58%) as well as those the Public Administration sector (50%).

Alongside looking at existing skills deficiencies in the workforce, ESS reports on employers' expected need to upskill their staff over the coming year. Around six in ten UK employers (63%) anticipated that their skills requirements will change over the next 12 months, thus requiring staff to acquire new skills. The proportion of employers identifying a need for upskilling was higher in 2013 (72%). Around one in eight UK employers (13%) anticipated a need for at least some of their staff to acquire new skills or knowledge over the next 12 months as a result of the UK's decision to leave the EU.

ESS also provides an assessment of staff being underutilised; that is having both qualifications and skills at a higher level than is needed for their current role. Over a third of employers (35%) reported that they had underutilised employees (a five percentage point increase from 2015), with 2.5 million workers underutilised in this way (8.7% of the workforce, up from 7.1% in 2015). The prevalence of staff underutilisation was highest in the Hotels and Restaurants sector where 16% of the workforce were described by their employer as having qualifications and skills at a higher level than is needed for their role.

Training and workforce development

Training for staff is an important means through which employers can help tackle skill shortages − either those faced through an inability to recruit sufficiently skilled labour, or those that are present in the existing workforce – as well as to generally develop workforce skills to increase productivity and expertise.

In line with the two previous ESS surveys in 2013 and 2015, two-thirds of employers in the UK (66%) had provided training for their staff over the past 12 months, with either off-the-job training or on-the-job training provided by around half of all employers in each case (48% and 53% respectively). The proportion of staff trained over the past 12 months also remained consistent with previous years at 62%, though reflecting the increased levels of employment, the number of employees trained increased from 17.4 million in 2015 to 17.9 million in 2017.

There are indications that the quantity and type of training may not be being maintained. For instance, whilst the number of staff trained has increased, the total number of training days provided has decreased, hence the average number of days training per trainee has decreased from 6.8 days in 2015 to 6.4 days in 2017.

In real terms (i.e. adjusted for inflation), overall training expenditure has increased by 1% since 2015, from £43.6bn to £44.2bn. However, this training expenditure is equivalent to £2,470 per person trained per annum, and £1,530 per employee (including staff not trained at all): decreases of 1% and 2%, respectively compared with 2015.

There was also a decrease in the number of staff being trained to nationally recognised qualifications, from 3.5 million in 2015 (20% of those being trained) to 3.3 million in 2017 (18% of all those being trained).

An evident shift since 2015 in how employers provide training for their staff comes from the increased use of online training and e-learning. Around half (51%) of all employers providing training had made use of online training or e-learning for at least some of their training; up from 45% in 2015. Increased use of online training and e-learning was evident across the UK nations and all sectors of the economy.

High performance working

To complement the main analyses presented throughout this report – which predominantly focus on differences by employers' size, sector and geography – the ESS series provides a measure of how businesses operate and organise their work to identify 'high performance working' practices. High performance working (HPW) is a general approach to managing organisations that aims to stimulate more effective employee involvement and commitment in order to achieve high levels of performance.

Overall, 9% of employers are regarded as HPW employers; that is, they adopt at least 14 of the 21 HPW practices covered in ESS. This compares to 8% in 2015.

HPW employers tend to be more active in the recruitment market. They are more likely to report having a vacancy, having a hard-to-fill vacancy, and having a skills shortage vacancy. This is the case across all size bands (up to employers with 250 employees), and not just a function of larger employers being more likely to be HPW. However, HPW employers generally find it easier to fill their vacancies (i.e. the proportion of vacancies reported to be hard-to-fill, including for skills related reasons, is lower among HPW employers).

There is a clear relationship between an establishment's working practices and their provision of training. HPW employers were much more likely to have provided training for their staff than non-HPW employers. They were also more likely to have provided training that led to nationally recognised qualifications and to qualifications that are of a higher level. These patterns hold true across size bands.

1. Introduction and methodology

Background to the Employer Skills Survey

The Employer Skills Survey (ESS) provides a comprehensive source of intelligence on: the skills challenges that UK employers report both within their existing workforces and when recruiting; the levels and nature of investment in training and development; and the relationship between skills challenges, training activity and business strategy.

The 2017 survey is the fourth in a series conducted biennially since 2011.[1] The period since the last ESS in 2015 has been marked by continued economic growth,[2] and high levels of job creation, with the employment rate of 75.1% among the highest since records began (ONS Labour Market Bulletin, 2017).

Despite these indicators of relative economic health, the UK's long-standing productivity gap relative to international competitors remains pronounced and has been exacerbated by weak productivity growth since the financial crisis (Taylor, M., 2017). Moreover, when compared to other nations, the UK's current performance and future prospects in terms of workforce skills, as measured by qualifications, are mixed, with relative strength in terms of higher level qualifications accompanied by relative weakness at both intermediate and low levels (Campbell, M., 2016).

Accurate and detailed labour market information remains key to informing policy designed to address these issues, especially amid a period of change as the UK leaves the European Union and the tendency towards reduced net migration continues (ONS Migration Statistics Bulletin, 2017), as well as increasing levels of automation and use of artificial intelligence.

Based on survey responses from over 87,000 employers across the UK, ESS 2017 enables assessment of how skills deficiencies are impacting business and organisational performance at both UK 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 provides a substantial body of evidence that can be used by a wide range of organisations and audiences.

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[1] The 2011, 2013 and 2015 editions of the survey were commissioned by the UK Commission for Employment and Skills (UKCES). Responsibility for the ESS series transferred to the Department for Education following the closure of UKCES in 2016. The government has conducted employer surveys on skills and training since 1990, starting with the Skill Needs in Britain surveys. See Appendix B for more details on related predecessor surveys.

[2] 3.7% growth in UK gross domestic product (GDP) between 2015 Q2 and 2017 Q2. Source: ONS Quarterly National Accounts time series dataset (QNA).

The evidence presented in this 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, 2013 and 2015;
- 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 data tables detailing key survey measures.

Full sets of data tables breaking down findings by nation, size, sector, and other classifications (such as whether in the public or private sector, and whether part of an organisation with multiple site), have also been published alongside this report on the gov.uk website.

Methodological overview

ESS 2017 has a very similar methodology to the previous ESS studies in terms of questionnaire design, sampling, data collection, data reduction and weighting, to preserve the ability to compare data over time.

The survey 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 previous 12 months (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 has been published alongside this report on the gov.uk website.

Sampling

The population covered by the survey comprised UK employers at the establishment level (rather than at an organisational level)[3] with at least two staff on the payroll. Sole traders with a single person on the payroll were excluded.

The survey encompassed establishments across the whole of the UK, covering all sectors of the economy (the commercial, public and charitable spheres). The profile of this population was established through Office for National Statistics (ONS) data from the March 2016 Inter-Departmental Business Register (IDBR), the most up to date business population figures available at the time of the survey.

The sample of establishments was primarily sourced from the commercial data supplier, Market Location. This was supplemented by records supplied directly through the IDBR to improve coverage of establishments in specific sectors and parts of sectors that are underrepresented in Market Location's database.

Quotas for the main survey were set by size within sector separately 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 provided on-the-job training only, off-the-job training only, or both). All 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.

Questionnaire

Following a review of the 2011, 2013 and 2015 ESS questionnaires by DfE and its partners, the questionnaire for ESS 2017 did not require substantial redevelopment. There was, however, an overall aim to reduce the average interview length from 23 to 21 minutes, alongside introducing new questions and answer codes to explore areas of interest relating to the UK's decision to leave the European Union (EU).

The EU-related questions included: (a) questions to determine the proportion of establishments which serve or sell to the EU; (b) a question to determine how many staff are from EU member states and are not UK citizens; and (c) two new questions to determine the extent to which employers with hard-to-fill vacancies and/or skills gaps have tried to recruit EU nationals to help overcome these difficulties.

[3] i.e. multiple sites (or premises) of a larger organisation were in scope for the research and were thus counted separately for sampling purposes. This was in recognition of the influence that local labour markets have on skill issues and the fact that skills issues are felt most acutely at the site level.

Another change of note was the full transition to the 'new' list of skills descriptors partially introduced in ESS 2015.[4] This means that time series data on skills lacking among applicants, or among the existing workforce, goes back only to 2015.

Upskilling and retention questions are rotated in alternate surveys, with the upskilling module being included in ESS 2017.

As in 2013 and 2015, a modular questionnaire design was used whereby certain sections (such as questions on upskilling and high performance working practices) were only asked of half of the respondents selected at random. The report makes clear which questions this applies to.

The questionnaire administered for the previous UK Investment in Training Survey in 2015 was used again in 2017.

Copies of the questionnaires used for both surveys are published alongside this report on the gov.uk website.

Fieldwork

Fieldwork for the core survey was undertaken between May and October 2017, and involved 87,430 interviews.[5] Fieldwork was conducted by three research agencies (IFF Research, BMG Research and Ipsos MORI).

Fieldwork for the follow-up Investment in Training Survey was undertaken by IFF Research between June and October 2017 and involved 12,488 interviews with establishments that had taken part in the core survey.

An overall response rate of 43% was achieved for the core survey. Table 1.1 shows response rates by country.

For the Investment in Training follow-up, respondents were already engaged with the survey so predictably a much higher response rate (62%) was achieved.

[4] In ESS 2015, half of employers with skill-shortage vacancies and/or skills gaps were randomly assigned to the 'new' list of skills descriptors, with the other half assigned to the 'old' skills descriptors used in ESS 2013 and 2011.

[5] Tables A.1.1 to A.1.5 in Appendix A provide full breakdowns on the number of interviews achieved (i.e. unweighted base sizes) by country, size and sector.

Table 1.1 Survey response rates[6]

	UK	England	Northern Ireland	Scotland	Wales
Core survey					
Interviews	87,430	71,527	3,973	6,017	5,913
Response rate	43%	42%	49%	54%	47%
Investment in Training follow up					
Interviews	12,488	8,882	864	1,409	1,333
Response rate	62%	62%	64%	65%	62%

Weighting

Findings from the core survey have been weighted and grossed up to accurately represent the total population of UK establishments with at least two people on the payroll. 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 of the survey and allows for time series comparisons across the ESS series.

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. Refinements to modelling of training data were introduced for the current survey, and also applied retrospectively to 2011, 2013 and 2015 data. This means that training spend for previous years may differ to those published in previous reports.

Structure of this report

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

- Chapter 2: Firmographics

  This chapter provides context to the main findings by describing some of the key firmographic characteristics of the UK employer and employment populations, as well

[6] A full breakdown of response rates (including the number of records called, number of refusals etc.) is included in the accompanying technical report.

as data from some of the new EU-related questions concerning whether employers sell to (or serve the populations of) the EU, as well as their employment of EU nationals.

- Chapter 3: Recruitment and skill-shortage vacancies

  This chapter discusses recruitment activity and difficulties in filling vacancies due to skill-shortages. The chapter examines the proportion of establishments with current vacancies and skill-shortage vacancies, the volume and density of such vacancies, the skills lacking in the available labour market, the impact of skill-shortage vacancies on employers, and wider recruitment challenges.

- Chapter 4: The internal skills challenge

  This chapter looks at the extent and nature of skills gaps within the workforce and how these affect different occupations, the causes and impact of these skills gaps, and the way employers respond to them. The chapter then explores the under-use of skills and qualifications, and the prevalence, occupational breakdown, and skills subject to upskilling needs.

- Chapter 5: Training and workforce development

  Chapter 5 explores in detail employers' training and development activities for their employees, including the types of training provided, employers' expenditure on training, and barriers to providing (more) training.

- Chapter 6: High performance working practices

  This chapter explores how employers manage, develop, engage with and incentivise their staff, and seeks to assess the prevalence of High Performance Working (HPW) practices, including how they relate to skills shortages, skills gaps, and training.

- Chapter 7: Conclusions

  The final chapter summarises the key themes emerging from the survey and considers their implications.

Reporting conventions

The terms "establishment", "employer" and "workplace" are used 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.

Usually survey data on occupations are discussed at one-digit standard occupational classification (SOC) level. However, on occasion to aid analysis, the report discusses occupations at a broader classification of high-skill, middle-skill, service-intensive and labour-intensive roles, as shown in Table 1.2.

Table 1.2 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%.

Throughout the report, figures with a base size of fewer than 30 establishments are not reported (a double asterisk, “**”, is displayed instead), and figures with a base size of 30 to 49 are italicised and should be treated with caution.

The scale and scope of data collected in ESS 2017 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. All differences referred to in the text are statistically significant at the 95% level of confidence. Further statistical information can be found in Appendix E.

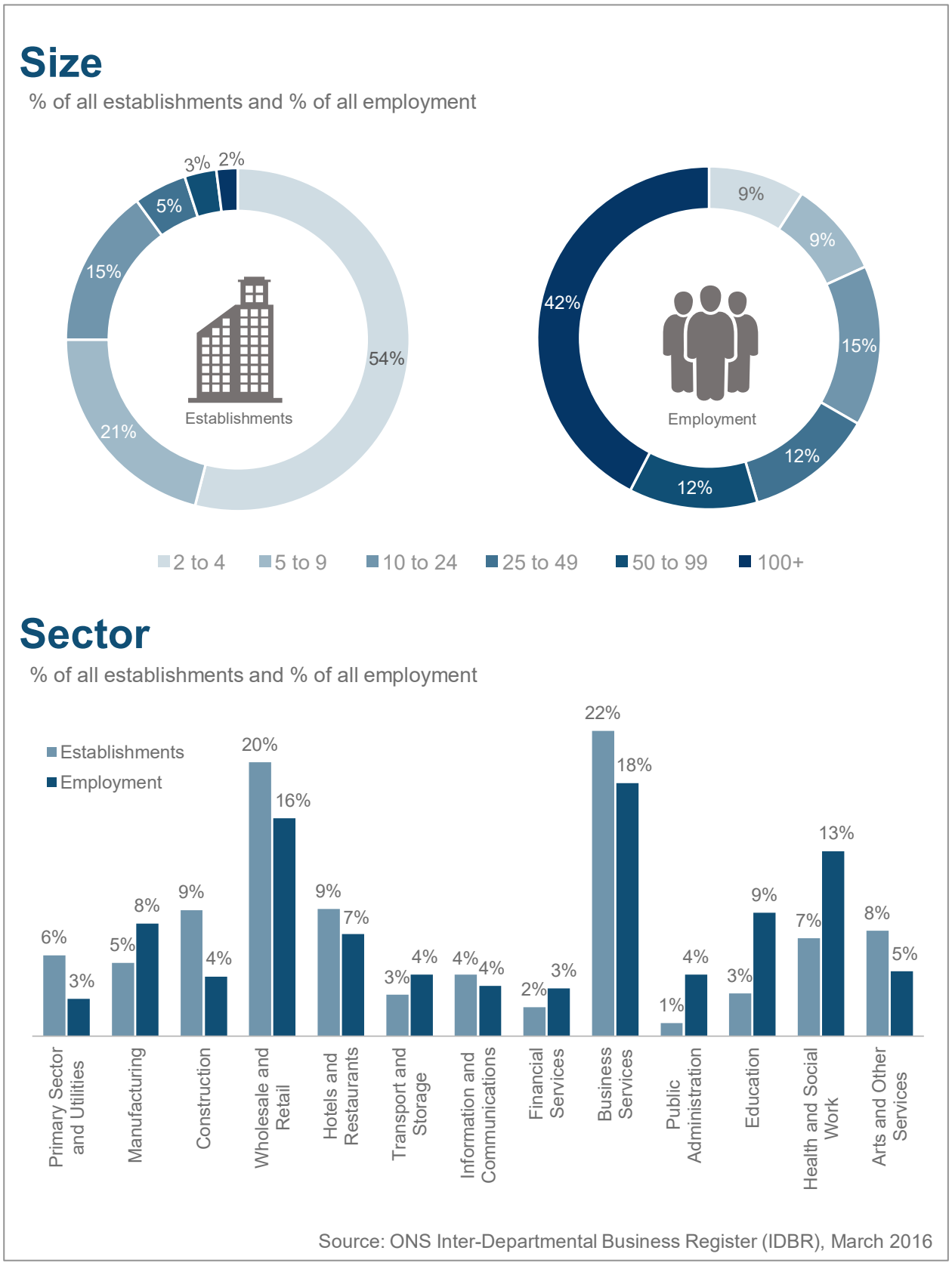
2. Firmographics

In order to provide context to the main findings presented throughout the rest of the report, this chapter firstly describes some of the key characteristics of the UK employer and employment populations using Office for National Statistics (ONS) data. This chapter then reports on some of the new EU-related questions added to the survey concerning whether employers sell to (or serve the populations of) the EU, as well as their employment of EU nationals. Data from these questions are presented here to provide further context and background on the nature of UK establishments.

The nature of UK establishments: understanding the survey population

Figure 2.1 summarises key information on the profile of establishments and employment across the UK, based on ONS data. This shows that while the smallest establishments with fewer than five employees account for over half (54%) of all establishments, they account for just 9% of all employment. In contrast, the largest establishments with 100 or more employees make up just 2% of all establishments, but account for 42% of all employment.

Figure 2.1 Size and sector profile of UK establishments



The largest sectors are Business Services[7] and Wholesale and Retail which account for 22% and 20% of all establishments, respectively. Between them, establishments in these two sectors employ just over a third of the UK workforce (34%). Figure 2.1 illustrates that the distribution of establishments across sectors is different to the distribution of employment. These variances primarily reflect the differing size profile of establishments within sectors. For instance, the Construction sector accounts for 9% of all establishments but employs only 4% of the workforce. This reflects the fact that the majority of Construction employers (71%) are small establishments with fewer than five employees. Conversely, the Public Administration, Education, and Health and Social Work sectors account for a larger share of total employment than of establishments.

Table A.2.1 in Appendix A shows the size profile of each sector. Table A.2.2 in Appendix A shows the profile of UK establishments according to whether they are private, public or third sector, as well as the proportion that are single site establishments or part of a larger organisation with multiple sites.

Distribution of establishments and employment over time

Where possible the report presents time series data across the iterations of the ESS series (2011 to 2017). It is therefore useful to understand the changes in the establishment and employment populations as context for changes in survey data over time.

Table 2.1 details the UK establishment and employment populations that each survey was grossed up to. This shows that at a UK level the establishment population has increased between each iteration of the survey, with the largest increase occurring between 2015 and 2017. Since 2013, the employment population has increased between each iteration of the ESS series.

[7] Business Services includes ‘real estate activities’, ‘professional, scientific and technical activities’, and ‘administrative and support service activities. See Appendix C for more detail.

Table 2.1 UK establishment and employment populations over time

	2011	2013	2015	2017
Establishment population (UK)	1,742,000	1,744,000	1,767,000	1,895,000
% change in establishments	-	0%	1%	7%
Employment population (UK)	26,990,000	26,959,000	27,755,000	28,861,000
% change in employment	-	0%	3%	4%

Source: ONS Inter-Departmental Business Register

The percentage changes shown are relative to the previous iteration

To help understand the most recent population changes, Table 2.2 details the size and sector populations in 2015 and 2017. This shows growth in all size bands, but largest increases in the smallest establishments with 2-4 employees.

Table 2.2 UK establishment and employment populations over time, by size and sector

	Establishment			Employment		
	2015	2017	% change	2015	2017	% change
2 to 4	908,000	1,017,000	+12%	2,383,000	2,645,000	+11%
5 to 9	394,000	399,000	+1%	2,572,000	2,608,000	+1%
10 to 24	275,000	284,000	+3%	4,109,000	4,236,000	+3%
25 to 49	101,000	104,000	+3%	3,467,000	3,573,000	+3%
50 to 99	50,400	51,900	+3%	3,463,000	3,560,000	+3%
100-249	26,900	27,800	+3%	4,085,000	4,203,000	+3%
250+	11,800	12,100	+3%	7,676,000	8,035,000	+5%
Primary Sector and Utilities	109,000	111,000	+2%	697,000	785,000	+13%
Manufacturing	99,000	101,000	+2%	2,371,000	2,357,000	-1%
Construction	159,000	173,000	+9%	1,193,000	1,250,000	+5%
Wholesale and Retail	371,000	377,000	+2%	4,494,000	4,572,000	+2%
Hotels and Restaurants	160,000	175,000	+9%	1,961,000	2,138,000	+9%
Transport and Storage	52,000	57,000	+10%	1,221,000	1,286,000	+5%
Information and Communications	77,000	85,000	+10%	1,010,000	1,050,000	+4%
Financial Services	38,000	40,000	+4%	1,005,000	1,000,000	0%
Business Services	364,000	421,000	+16%	4,786,000	5,307,000	+11%
Public Administration	20,000	18,000	-9%	1,356,000	1,290,000	-5%
Education	58,000	59,000	+1%	2,608,000	2,593,000	-1%
Health and Social Work	132,000	135,000	+2%	3,791,000	3,878,000	+2%
Arts and Other Services	128,000	145,000	+14%	1,262,000	1,356,000	+7%

Source: ONS Inter-Departmental Business Register

By sector there has been marked growth of between 9% and 16% from 2015 to 2017 in the number of establishments operating in the Construction, Hotels and Restaurants, Transport and Storage, Information and Communications, Business Services, and Arts and Other Services sectors. These sectors, along with Primary Sector & Utilities, have also seen the largest increases in employment.

Only the Public Administration sector has seen a decrease in the number of establishments between 2015 and 2017 (a decrease of 9%). Employment in this sector has also decreased (by 5%). Employment also fell between 2015 and 2017 in Manufacturing, Financial Services, and Education.

Trading with the EU and employment of EU nationals

As mentioned earlier in the methodology section, a number of EU-related questions were introduced to ESS 2017. Included among these were questions on whether employers sell to (or serve the populations of) the EU, as well as their employment of EU nationals. Data from these questions are presented here to provide further context and background on the nature of UK establishments.

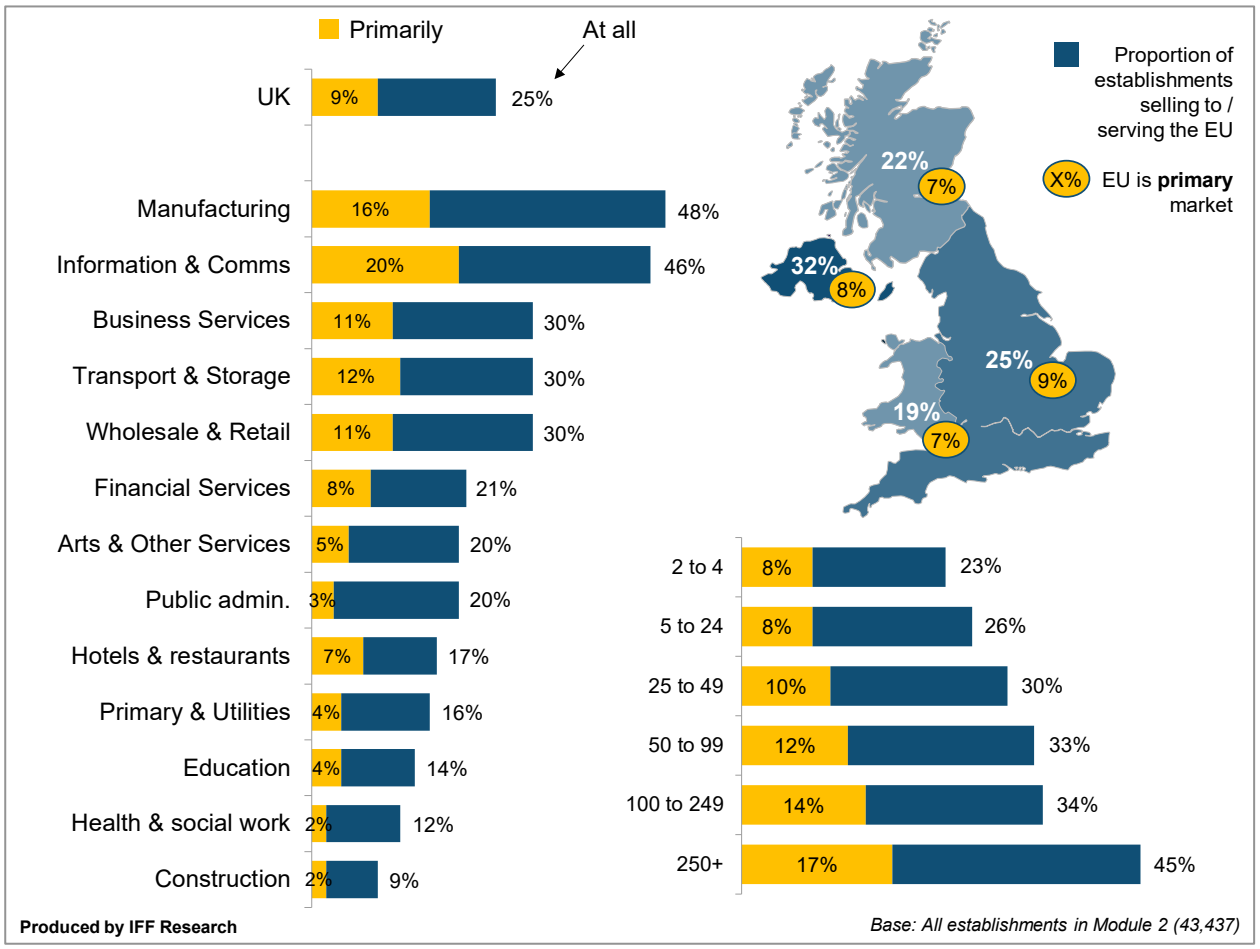
Selling to the EU

One in four employers (25%) reported that they sell products to, or serve the populations of, the EU (outside the UK). Nine per cent of all employers described the EU as their *primary* market. Among employers based in London, more than a third (35%) reported that they sell to or serve the EU (13% reporting it as their *primary* market). Northern Ireland, which shares a land border with the Republic of Ireland (an EU member state), had a higher than average proportion of employers reporting that they sell to the EU (32%), though the proportion reporting it to be their primary market was in line with the UK average.

As shown in Figure 2.2, nearly half of employers in the Manufacturing and Information and Communications sectors sell to or serve the population of the EU (48 and 46% respectively), and as many as a sixth of the former (16%) and a fifth of the latter (20%) have the EU as their primary market. Construction employers were the most likely to serve a UK-only market (92%).

The larger the establishment the more likely they are to trade with the EU, rising from around a fifth of those with 2-24 staff, to a third of those with 25-249 staff, to approaching half (45%) of the largest establishments with 250 or more employees. Among the largest establishments around one in six (17%) describe the EU as their primary market.

Figure 2.2 Proportion of employers selling to or serving the EU



Employment of EU nationals

One in five employers (19%) employed at least one member of staff from an EU (non-UK) member state. Survey results suggest 9% of the UK workforce in establishments with two or more staff were non-UK EU nationals.[8] This proportion was higher in England (10%, rising to 20% in London) than in Scotland (7%), Northern Ireland (6%) or Wales (4%).

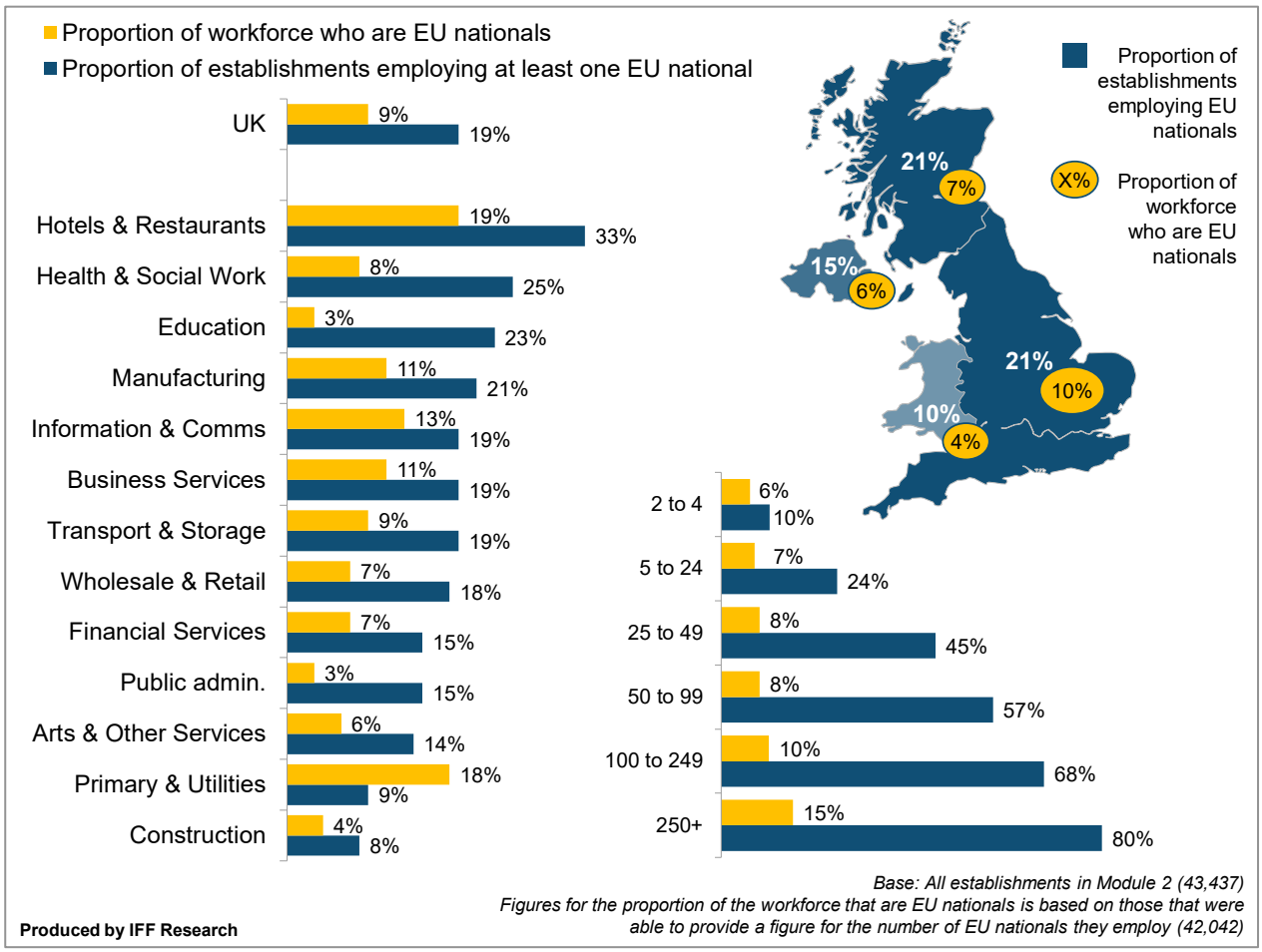
As shown in Figure 2.3, the proportion of sectors employing any EU nationals varied widely, and was highest in the Hotels and Restaurants sector (33%), followed by Health and Social Work (25%) and Education (23%). In comparison just 8% of Construction employers had any EU nationals on their payroll.[9]

[8] This is similar to data published by the Office for National Statistics (ONS) which reported that that 7% of the UK labour market are EU nationals. Source: ONS (2016) International immigration and the labour market, UK: 2016.

[9] It should be noted for context that the survey focused on full-time and part-time employees on the payroll. Contractor and agency staff were not in scope for the survey and not included in employers' answers when asked how many EU nationals they employ.

The proportion of the workforce that were (non-UK) EU nationals was highest among employers in the Hotels and Restaurants sector (19%) and was above one in ten within Primary and Utilities (18%), Information and Communications (13%) and Manufacturing and Business Services (each 11%). While employers in Education were more likely than average to employ any EU nationals, EU nationals comprise a small proportion of the total workforce in the sector (3%, the lowest of all sectors along with Public Administration).

Figure 2.3 Employment of EU nationals



The proportion of all employees who are from EU member states increases with the size of the establishment (from 6% of those with fewer than five employees to 15% among those with more than 250 employees).

3. Recruitment and skill-shortage vacancies

Chapter summary

One in five UK employers (20%) had at least one vacancy at the time of ESS 2017 fieldwork (summer 2017), and just over one million vacancies were reported, a 9% increase on the number in 2015. Levels of recruitment activity have increased compared to 2015 in England, Scotland and, most notably, Northern Ireland. In Wales recruitment activity was broadly unchanged.

In this report, vacancies that employers find hard-to-fill due to applicants lacking relevant skills, qualifications or experience are termed ‘skill-shortage vacancies’. Whilst the proportion of employers with skill-shortage vacancies was unchanged from 2015 at 6%, in volume terms the number of such vacancies has increased by 8%, from 209,000 to 226,000 (similar to the increase in overall vacancy numbers).

Skill-shortage vacancies accounted for 22% of all vacancies in the UK (in line with the 23% density reported in 2015). By nation, the density of skill-shortage vacancies has notably increased in Northern Ireland (up from 14% in 2015 to 21%) and Wales (up from 24% to 27%) but remained unchanged in England and Scotland.

Skill shortages were particularly prevalent in certain sectors. In Construction, over a third of all vacancies were reported to be hard to fill for skills-related reasons. The density of skill-shortage vacancies has increased since 2015 in Primary Sector and Utilities, Arts and Other Services, Education, and Public Administration.

Skilled Trades roles continue to have the highest density of skill-shortage vacancies (more than two in every five Skilled Trades vacancies were skill-shortage vacancies). Around a third of vacancies for both Professionals and Machine Operatives were hard-to-fill due to a lack of skills. The density of skill-shortage vacancies has increased since 2015 for Caring, Leisure and Other Services occupations, as well as Administrative and Clerical positions.

The skills lacking among applicants covered both technical and practical skills as well as people and personal skills. On the technical side, employers reported a lack of digital skills, skills related to operational aspects of the role, and a lack of complex analytical skills. The main people and personal skills found lacking predominantly related to self-management skills, management and leadership, and sales and customer handling skills.

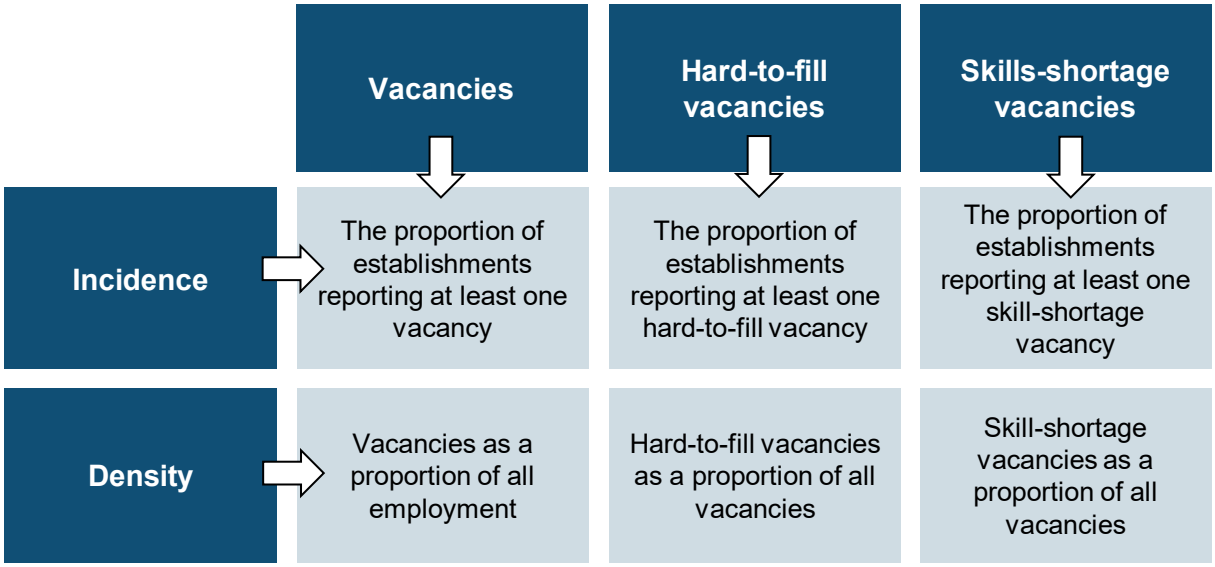
Employers with skill-shortage vacancies reported a range of resulting impacts, including increased workloads for other staff, loss of business to competitors, and delays developing new products or services. Actions taken by employers to overcome skill-shortages primarily focussed on altering their recruitment methods, including increased recruitment spend.

Introduction

Recruitment activity is an indicator of growth and change in the labour market and wider economy. For instance, the previous Employer Skills Survey in 2015 reported a substantial increase in recruitment activity across the UK compared to 2013, coinciding with 5% growth in gross domestic product (GDP) during this period.[10]

When employers have vacancies it can either be a positive indicator of growth, or present challenges if they are recruiting to replace the loss of key personnel or plug gaps in the workforce due to high levels of staff turnover. If employers are unable to recruit individuals with the skills, qualifications or experience they require, it is likely to impact on their ability to fulfil existing work and to grow. In the UK government's 'Industrial Strategy: Building a Britain fit for the future' it is recognised that people, and the skills they have, are a key driver of productivity. In light of the UK's weak productivity growth over the past decade[11], insight into the challenges that employers report when accessing the labour market is a valuable step in identifying where the labour market is not supplying employers with the skills it needs.

ESS 2017 provides a detailed understanding of the level and nature of employer demand for new staff and the ability of the labour market to meet this 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:



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, the

[10] ONS Quarterly National Accounts time series dataset (QNA), 2013 Q2 to 2015 Q2.
[11] ONS Labour productivity statistical bulletin (January 2018).

specific skills that employers have found to be lacking, the impact that skill-shortage vacancies have, and the actions taken to help overcome these impacts. It then closes with a brief discussion of the extent of wider recruitment challenges that employers face.

Vacancies

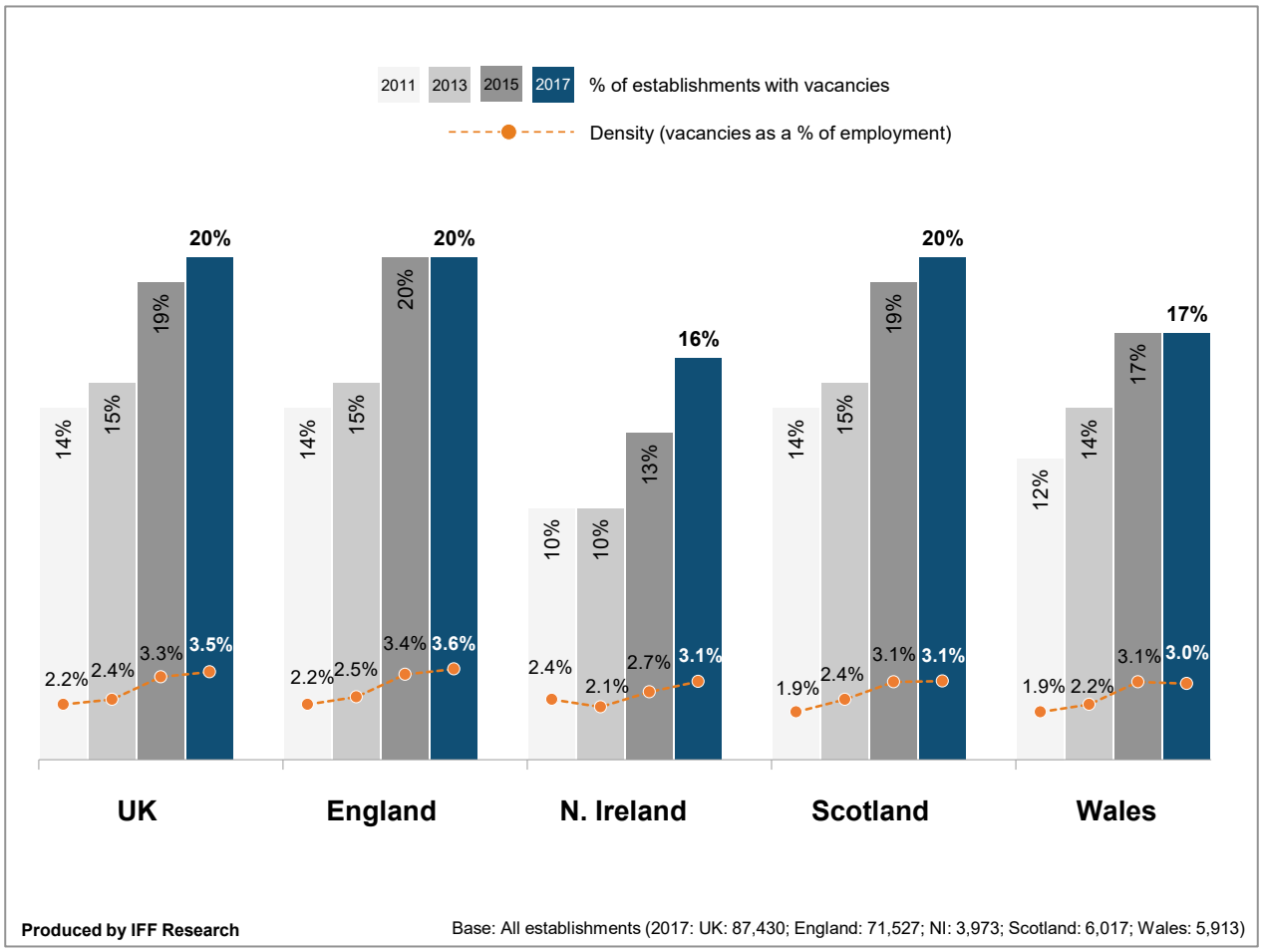
One in five UK establishments (20%) had at least one current vacancy at the time of the survey;[12] a one percentage point increase from 2015. In volume terms there were just over one million vacancies (1,007,000); equivalent to 3.5% of all employment. This represents a 9% increase on the 927,000 vacancies reported in 2015 (equivalent to 3.3% of total employment).[13]

As shown in Figure 3.1, the proportion of establishments with at least one vacancy was broadly unchanged since 2015 in England, Scotland and Wales. In Northern Ireland there was a three percentage point increase in the incidence of establishments with vacancies.

In volume terms, the largest proportional increase in number of vacancies was in Northern Ireland; from 19,700 in 2015 to 23,200 (an 18% increase). There was a 9% increase since 2015 in the number of vacancies in England (from 797,000 to 873,000)[14], and a 3% increase in Scotland (from 73,600 to 75,400). In contrast, the number of vacancies in Wales was unchanged at 36,400.

[12] May to October 2017.
[13] This increase broadly aligns with the change in recruitment activity recorded by Vacancy Survey, which is owned by the Office for National Statistics (ONS). Using the same fieldwork periods as the ESS, the ONS statistics show an increase of 7% between 2015 and 2017. The overall vacancy time series for the ESS tracks the Vacancy Survey trend very closely.
[14] An increase in the number of vacancies was evident in all England regions, with the exception of London (a 4% decrease) and North East (a 1% decrease).

Figure 3.1 Incidence and density of vacancies, by country



There was considerable variation in the extent and pattern of recruitment activity by size of establishment. Whilst the proportion of establishments reporting vacancies increased with size, the density of vacancies (i.e. vacancies as a proportion of employment) was larger among the smaller establishments.

By sector, the proportion of employers with vacancies ranged from 8% in Primary Sector and Utilities to 35% in Public Administration. It was only in the Public Administration sector where there was more than a two percentage point change in the proportion of establishments reporting vacancies between 2015 and 2017 (an increase from 31% to 35%).

The sectors with the highest density of vacancies were: Hotels and Restaurants (vacancies as a proportion of employment in this sector stood at 5.7%), Information and Communications (4.4%), Arts and Other Services (4.1%), and Business Services (3.9%). These sectors had the highest vacancy densities in 2015. The sector with the largest increase in vacancy density was Health and Social Work (from 3.2% in 2015 to 3.8% in 2017), indicating increased recruitment activity in this sector.

Tables A.3.1 in Appendix A provides a detailed breakdown of recruitment activity by country, size and sector.

The survey also identifies the occupational groups where vacancies exist.[15] The density of vacancies by occupation were largely unchanged from 2015 and, as has been the case in all previous version of the ESS series, the occupation with the highest density of vacancies was Associate Professionals (at 7.4%).

Table A.3.2 in Appendix A provides a detailed breakdown of recruitment activity by occupation.

Skill-shortage vacancies

When employers have vacancies, potential employees are either willing and able to meet employer requirements (the most common scenario[16]) or they are not. Where employers struggle to fill vacancies, this may be due to a lack of skills, qualifications or experience amongst applicants. Collectively these are known as 'skill-shortage vacancies', and are identified in the survey as follows:

During the survey, employers were first asked if their vacancies were proving hard to fill, then 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 on whether any of their hard-to-fill vacancies were proving hard-to-fill due to a lack of skills, experience or qualifications among applicants. These spontaneous and prompted responses combine to give a total number of skill-shortage vacancies.

This identification strategy may fail sometimes. A hard-to-fill vacancy that receives no applicants would not be classed as a non-skill-related vacancy but could be the result of a skill shortage. This is particularly the case where the job description has high and clearly stated requirements. For instance, a role which requires a PhD in Computer Science may receive no applicants if there are no available workers with this qualification in the area. Equally, a reported skill-shortage vacancy – i.e. one which attracts applicants but none with the right skills – may be caused by relative unattractiveness of the role to a pool of potential applicants *who do* possess the right skills. Aspects of the role which influence would-be applicants, such as pay or working conditions, may not be recognised by the employer and therefore may not be represented in this survey.

[15] See Appendix D for definitions and example types of job roles included under the occupational groupings.
[16] A third of vacancies across the UK were considered hard-to-fill (33%).

However, given these are latent factors that cannot be measured directly through employer reports, the 'skill-shortage vacancy' terminology is a reasonable proxy. Additionally, it is likely that 'skill-shortage vacancies' (identified through the process outlined above) are more closely linked to skill supply issues than vacancies reported to be hard-to-fill for other reasons.

The rest of this section explores these skill-shortage vacancies in more detail.

Prevalence of skill-shortage vacancies

The incidence of establishments with skill-shortage vacancies was unchanged from 2015 at 6%. In volume terms, however, there has been an 8% increase in the number of skill-shortage vacancies since 2015: from 209,000 to 226,000.

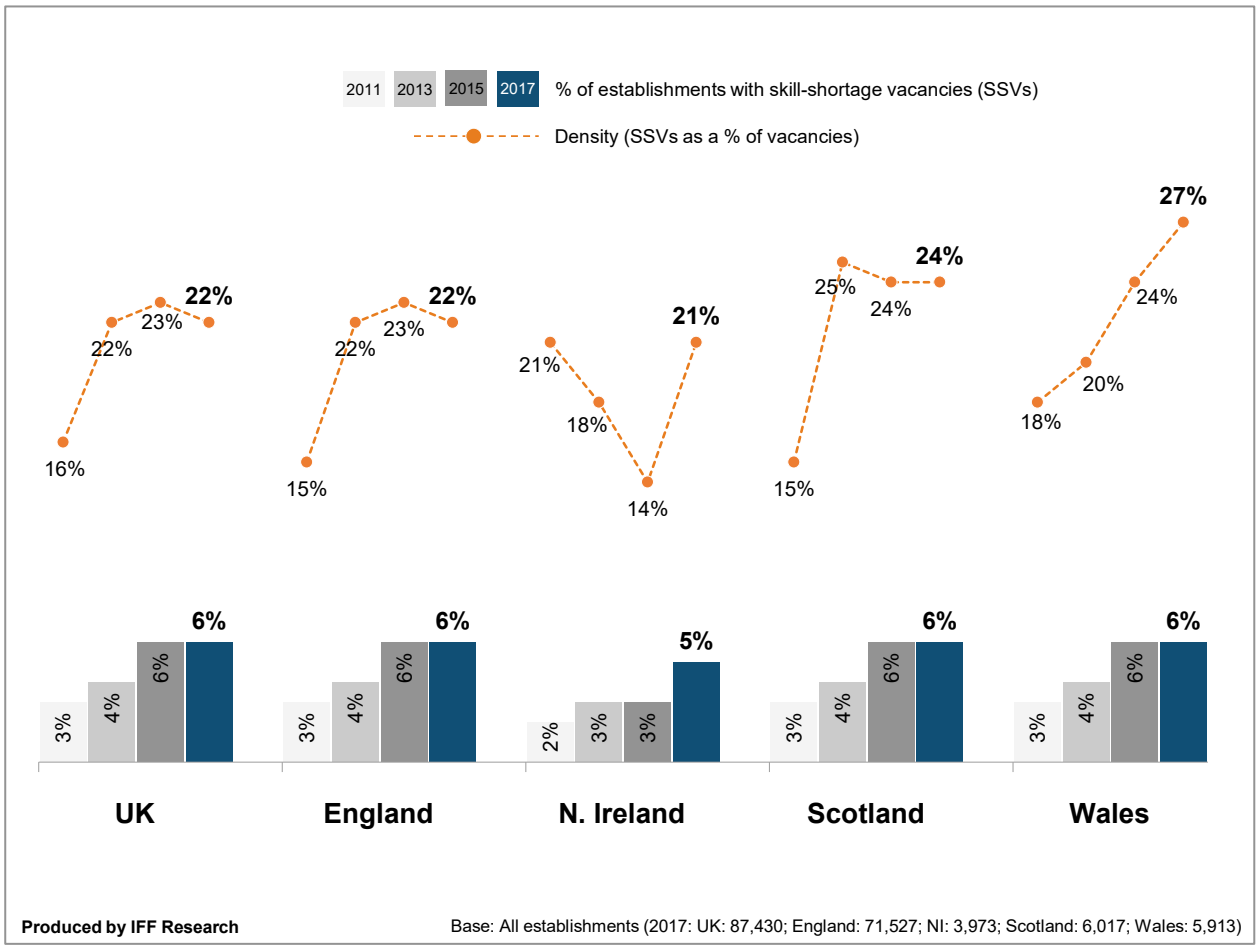
The increase in the number of skill-shortage vacancies was in line with the increase in vacancies, hence the density of skill-shortage vacancies (i.e. the proportion of vacancies where skill shortages were reported), at 22% was in line with the 2015 figure (23%). This is perhaps surprising given tightening in the labour market,[17] which historically is known to contribute to the density of skill-shortage vacancies (Hogarth and Wilson, 2001).

As shown in Figure 3.2, the prevalence of skill-shortage vacancies in England, Scotland and Wales is similar to 2015 (though in Wales there has been an increase in the density of skill-shortage vacancies, from 24% to 27%).

The picture in Northern Ireland has changed more substantially. The proportion of establishments in Northern Ireland with skill-shortage vacancies has increased from 3% to 5% and the density of skill-shortage vacancies has increased to 21%, a return to the level reported in 2011. It had previously been the case that employers in Northern Ireland found vacancies 'easier to fill' than the rest of the UK.[18] However, in 2017 the proportion of vacancies in Northern Ireland reported as being hard to fill (31%) was only slightly lower than the UK average of 33%.

[17] Less freely available labour – i.e. continued falls to unemployment (ONS UK Labour Market: January 2018) and signs of reducing net migration (ONS Migration Statistics Quarterly Report: November 2017)
[18] In 2015, 21% of all vacancies in Northern Ireland were reported as being hard-to-fill compared with the UK average of 33%.

Figure 3.2 Incidence and density of skill-shortage vacancies (SSVs), by country

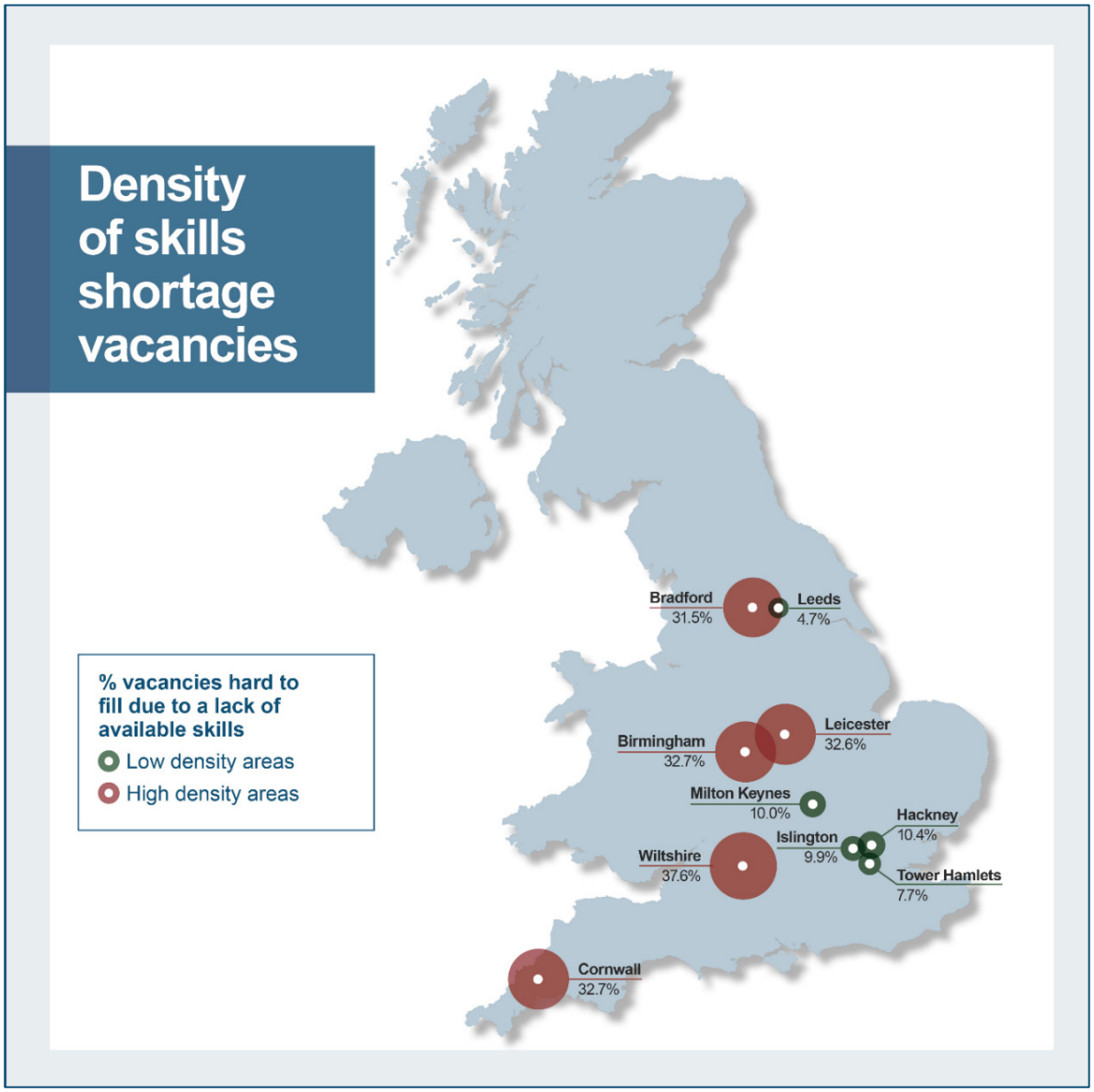


In the UK government's 'Industrial Strategy: Building a Britain fit for the future', it is acknowledged that meaningful partnership between local government and local enterprise is necessary to link skills provision with economic need. A key solution to building these partnerships is the introduction of Skills Advisory Panels, who will assess current and future supply and demand of skills to form a clear understanding of skills requirements in the local area.

ESS 2017 allows analysis of skills issues in the labour market at a local level. Figure 3.3 shows the Local Education Authorities (LEAs) in England with the highest and lowest proportions of vacancies that are hard to fill due to a shortage of skills.

For example, although the Yorkshire and the Humber region as a whole had a lower-than-average density of skill-shortage vacancies (19% compared with 22% UK-wide), a large variation can be seen at a local level between the nearby urban centres of Leeds (4.7%) and Bradford (31.5%). Detailed local level data is published alongside this report on the gov.uk website.

Figure 3.3 Local Education Authorities in England with the highest and lowest densities of skill-shortage vacancies[19]



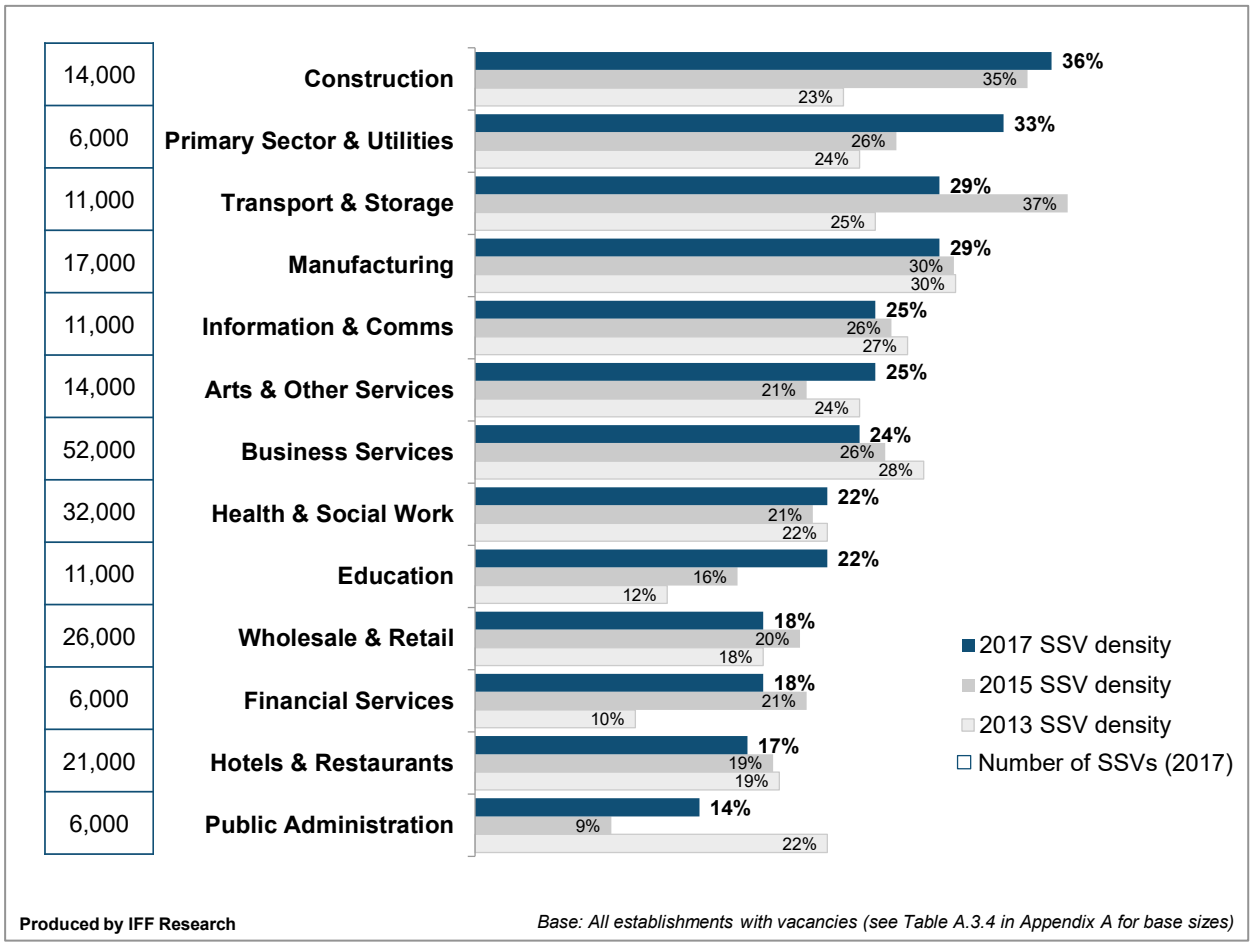
Returning to UK-wide analysis, the density of skill-shortage vacancies was greater among small establishments than large establishments. Almost a third of vacancies (31%) in establishments with fewer than five employees were proving hard-to-fill due to difficulties in finding applicants with appropriate skills, qualifications or experience. This compares with fewer than a fifth (16%) among establishments with 250 or more employees. That is to say that a vacancy was almost twice as likely to be hard to fill

[19] Regional data sets for England, Northern Ireland, Scotland and Wales is available on the gov.uk website. (Note that LEAs with a base size of fewer than 100 establishments with vacancies have been excluded from Figure 3.2)

because of reported skill shortages in the smallest establishments compared to the largest.

As shown in Figure 3.4, the experience of skill-shortage vacancies varied by sector. Reflecting the relative size of the sector, skill-shortage vacancies were most numerous in the Business Services sector. However, as a proportion of all vacancies in the sector, the density of skill-shortage vacancies was highest in Construction where almost two in every five vacancies were proving hard to fill due to difficulties in finding applicants with appropriate skills, qualifications or experience.

Figure 3.4 Number and density of skill-shortage vacancies (SSVs), by sector



The sectoral pattern of skill-shortage vacancies was broadly unchanged from 2015 (i.e. the hierarchy of sectors in Figure 3.4, which is ranked from high to low density, is similar to 2015). There were, however, some notable changes in the density of skill-shortage vacancies within sectors, with this having increased in:

- Primary Sector and Utilities (from 26% to 33%)
- Arts and Other Services (from 21% to 25%)
- Education (from 16% to 22%)

- Public Administration (9% to 14%).[20]

The sector with the most noticeable decrease in skill-shortage vacancy density was Transport and Storage (from 37% to 29%). This was driven by a decreased density of skill-shortage vacancies among Transport and Storage employers with fewer than five employees (from 61% in 2015 to 32% in 2017).

Tables A.3.3 and A.3.4 in Appendix A provide a detailed breakdown of skill-shortage vacancies by country, size of establishment and sector.

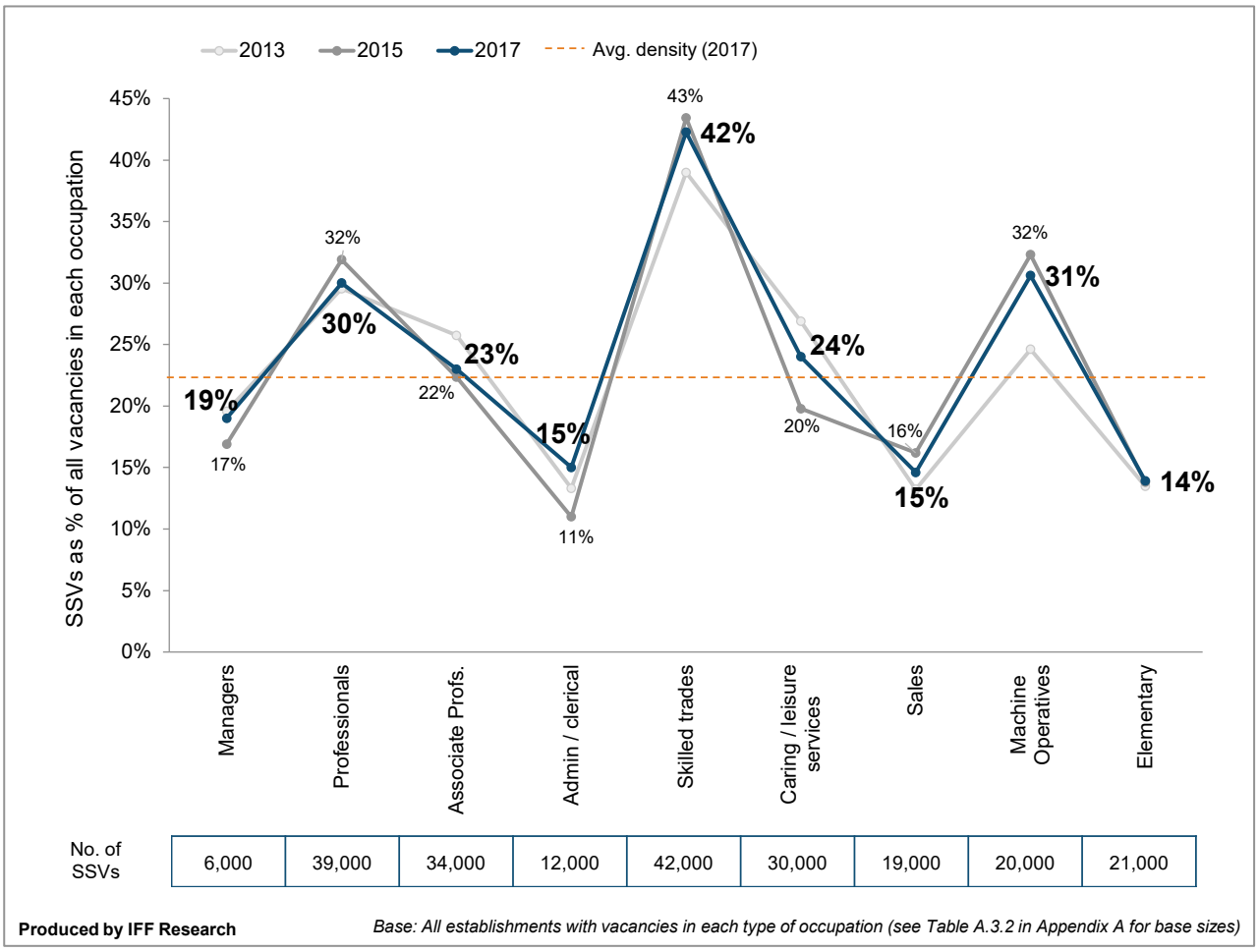
By occupation, employers were most likely to have experienced skills-related difficulties when recruiting for Skilled Trades positions. Around two in every five vacancies for such roles were proving hard to fill for skills related reasons (a skill-shortage vacancy density of 42%). This occupation has had the highest density of skill-shortage vacancies in all previous iterations of the ESS series. The specific job roles that account for the largest proportion of all Skilled Trades skill-shortage vacancies include:

- Chefs (17% of all skill-shortage vacancies for Skilled Trades)
- Vehicle technicians, mechanics and electricians (13%)
- Metal working production and maintenance fitters (13%)
- Metal machining setters and setter-operators (5%)
- Electricians and electrical fitters (5%).

As illustrated in Figure 3.5, density of skill-shortage vacancies by occupation was broadly the same as 2015, with the greatest challenges faced recruiting Professionals and Machine Operatives (alongside Skilled Trades).

[20] Whilst the data for 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 (73). 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 therefore be taken when interpreting these data.

Figure 3.5 Density and number of skill-shortage vacancies (SSVs), by occupation



Produced by IFF Research

Base: All establishments with vacancies in each type of occupation (see Table A.3.2 in Appendix A for base sizes)

Density of skill-shortage vacancies by occupation within sector

The previous section looked at the density of skill-shortage vacancies by sector and occupation separately. Exploring the density of skill-shortage vacancies by occupations *within* sectors provides a more detailed picture of where employers struggle to recruit the skills they need.

Though care should be taken to not over-extrapolate because of the relatively small base sizes in places, Table **3.1** details the skill-shortage vacancy density by occupation within sector.

There were several pockets of occupations within sectors where the density of skill-shortage vacancies was particularly high relative to the average (i.e. those where the density was 30-39% and, in particular, those where the density was ≥40%).

Many 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 in a number of sectors across the ESS series.[21]

Skill-shortage vacancies have also been persistently high for Machine Operatives in Construction, Primary Sector and Utilities, and the Transport and Storage sector, and for Professional occupations in Manufacturing, Construction, Information and Communications, Business Services, and Health and Social Work.

[21] A similar picture was reported in 1999 (Employers Skill Survey 1999: Statistical Report) and has been evident in subsequent Employer Skills Surveys.

Table 3.1 Density of skill-shortage vacancies by occupation within sector

Those where density was 40% and over

Those where density was 30% and over (but less than 40%)

Those where density was 22% and over

Those where density was less than 22%

	UK	Skilled trades occupations	Machine operatives	Professionals	Caring, leisure and other services	Associate professionals	Managers	Administrative/ clerical staff	Sales and customer services staff	Elementary staff
UK	**22**	**42**	**31**	**30**	**24**	**23**	**19**	**15**	**15**	**14**
Construction	**36**	44	34	41	**	26	24	17	22	33
Primary Sector & Utilities	**33**	39	47	36	33	32	23	13	**	32
Transport & Storage	**29**	55	38	17	**	13	14	13	24	13
Manufacturing	**29**	40	25	38	**	24	21	19	31	14
Arts & Other Services	**25**	34	**	25	35	21	14	8	20	26
Information & Communications	**25**	29	**	42	**	26	30	16	10	8
Business Services	**24**	52	45	30	15	25	27	23	16	12
Education	**22**	30	**	25	28	18	10	8	**	11
Health & social work	**22**	14	4	33	22	15	12	7	38	11
Wholesale & Retail	**18**	47	19	23	**	25	19	13	13	14
Financial Services	**18**	**	**	3	**	35	2	10	32	**
Hotels & Restaurants	**17**	39	9	**	24	20	22	12	19	12
Public admin.	**14**	28	**	22	2	14	18	6	**	**

Base: establishments with vacancies within each occupation, by sector (see Table A.3.5a in Appendix A).
** denotes a figure not shown because of a low base size (fewer than 30 establishments with vacancies).
Figures in *italics* denotes a base size between 30 and 49 establishments with vacancies.
See Table A.3.5 in Appendix A for the *number* of skill-shortage vacancies by occupation within sector.
Appendix D provides additional detail on the types of job roles by sector groupings.

There were several emerging pockets of skill-shortage vacancies, including:

- Associate Professionals in Primary Sector and Utilities (including job roles such as 'Inspectors of standards and regulations' and 'Business sales executives').
- Skilled Trades in Primary Sector and Utilities ('Farmers' and 'Agricultural and fishing trades'), and Education ('Chefs' and 'Cooks' in education settings).
- Caring, Leisure and Other Services occupations in the Arts and Other Services sector (including 'Hairdressers and barbers' and 'Beauticians').
- Sales and Customer Services occupations in Financial Services, Manufacturing, and Health and Social Work sector.
- Machine Operatives in Primary Sector and Utilities ('Scaffolders, stagers and riggers' and 'Agricultural machinery drivers').
- Elementary staff in Primary Sector and Utilities (such as 'Farm workers').

There are a small number of occupations within sectors where the density of skill-shortage vacancies has fallen compared to 2015, most notably: Associate Professionals within Wholesale and Retail (from 32% to 25%) and Construction (from 37% to 26%), and Sales and Customer Services within Information and Communications (from 47% to 10%).

Skills lacking in the available labour market

The Employer Skills Survey provides insight into the particular skills that employers have found to be lacking among applicants.

Employers with skill-shortage vacancies were read a list of skills and asked, for each occupation in which they reported skill-shortage vacancies[22], which skills were lacking. The specific skills that employers perceive to be lacking among applicants can be broadly grouped into two categories:

- **Technical and practical skills** – these are the specific skills required to perform the specific functions of a job role.
- **People and personal skills** – these are the 'softer', less tangible skills required to manage oneself and interact with others in the workplace.

[22] Up to a maximum of two occupations chosen at random.

The skills lacking across these two categories of skills are shown in Figure 3.6. The data in this figure are based on the total number of skill-shortage vacancies, as opposed to establishments with skill-shortage vacancies.[23]

Technical and practical skills

Considering first technical and practical skills, the most prevalent reported skill shortage was a lack of specialist skills or knowledge needed to perform the role. This was mentioned as being, at least in part, the cause of almost two-thirds of skill-shortage vacancies (65%), a slight increase from 2015.

Among the other technical and practical skills lacking, it is possible to group some of the skills. For instance, a lack of 'complex analytical skills' were cited as a cause of just under half (49%) of all skill-shortage vacancies. Within this grouping, the most prevalent was a lack of complex problem solving skills (41%). The proportion of skill-shortage vacancies attributed to a lack of complex numerical/statistical skills has decreased since 2015, from 29% to 27%. A lack of complex analytical skills was most prevalent among Business Services (57% of all skill-shortage vacancies in the sector), Construction (54%) and Information and Communication (53%).

Almost half (45%) of all skill-shortage vacancies were attributed, at least in part, to a lack of 'operational skills' including knowledge of products and services offered and/or knowledge of how the organisation works. Shortages of operational skills were most prevalent among employers in Wholesale and Retail (56% of all skill-shortage vacancies in the sector) and Hotels and Restaurants (54%).

A third (33%) of all skill-shortage vacancies were attributed, at least in part, to a lack of 'digital skills'. This includes both basic computer literacy (23%) and/or more advanced or specialist IT skills (21%). A lack of digital skills was most acute for the Information and Communications sector (60% of all skill-shortage vacancies in the sector).

Among employers in Wales, 17% of all skill-shortage vacancies were attributed at least in part to a lack of written Welsh language skills (up from 12% in 2015) and 16% to a lack of oral Welsh language skills (up from 13% in 2015).

People and personal skills

People and personal skills can be less tangible than technical and practical skills, but they can have a big impact on the ability of a potential employee to adapt to the workplace and be an effective member of staff.

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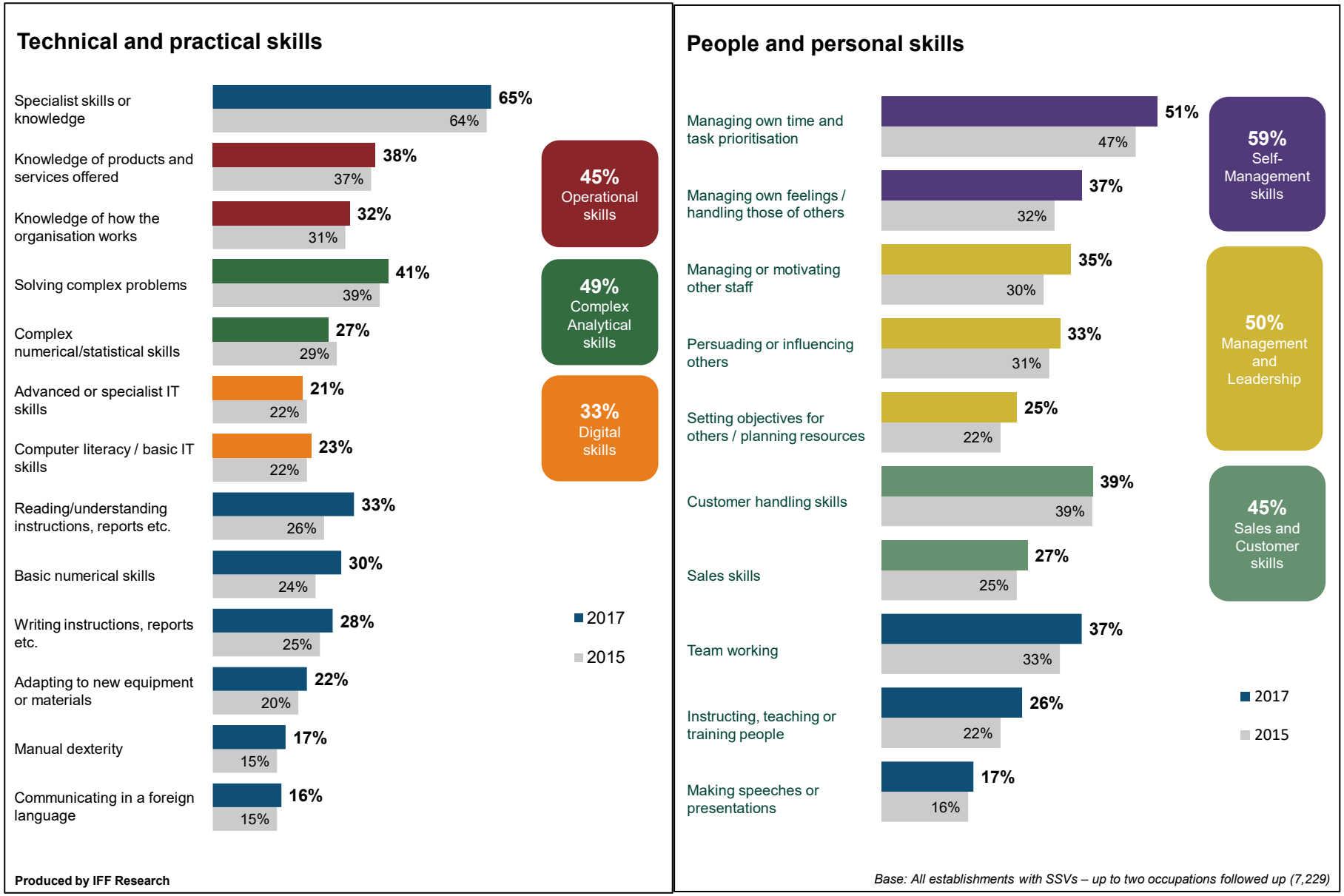
[23] Employers could cite more than one skill lacking among applicants for each of their skill-shortage vacancies, thus the percentages sum to greater than 100%.

As was the case in 2015, the most common skill of this type lacking in the labour market was the ability to manage ones' own time and task prioritisation (51% of all skill-shortage vacancies were attributed to this). Combining this with the ability to manage one's own feelings and handle the feelings of others − which was cited as a skill lacking for 37% of all skill-shortage vacancies – around six in ten skill-shortage vacancies (59%) were at least partly caused by a lack of 'self-management skills'. A lack of self-management skills was particularly prevalent for employers in the following sectors: Hotels and Restaurants (75% of all skill-shortage vacancies in the sector), Arts and Other Services (67%), and Financial Services (61%).

Skills related to 'management and leadership' were commonly reported to be lacking, including: managing or motivating other staff (35%), persuading and influencing others (33%), and setting objectives and/or planning resources (25%). A lack of management and leadership skills were most prevalent for employers in Hotels and Restaurants (62%) and Financial Services (61%).

Another grouping of skills that were commonly lacking were 'sales and customer skills', cited as a cause for 45% of all skill-shortage vacancies. This grouping includes customer handling skills (39%) and sales skills (27%). A lack of sales and customer skills were particularly prevalent in Financial Services (71%), Arts and Other Services (58%) and Wholesale and Retail (54%).

Figure 3.6 Skills lacking among applicants to establishments with skill-shortage vacancies (prompted)

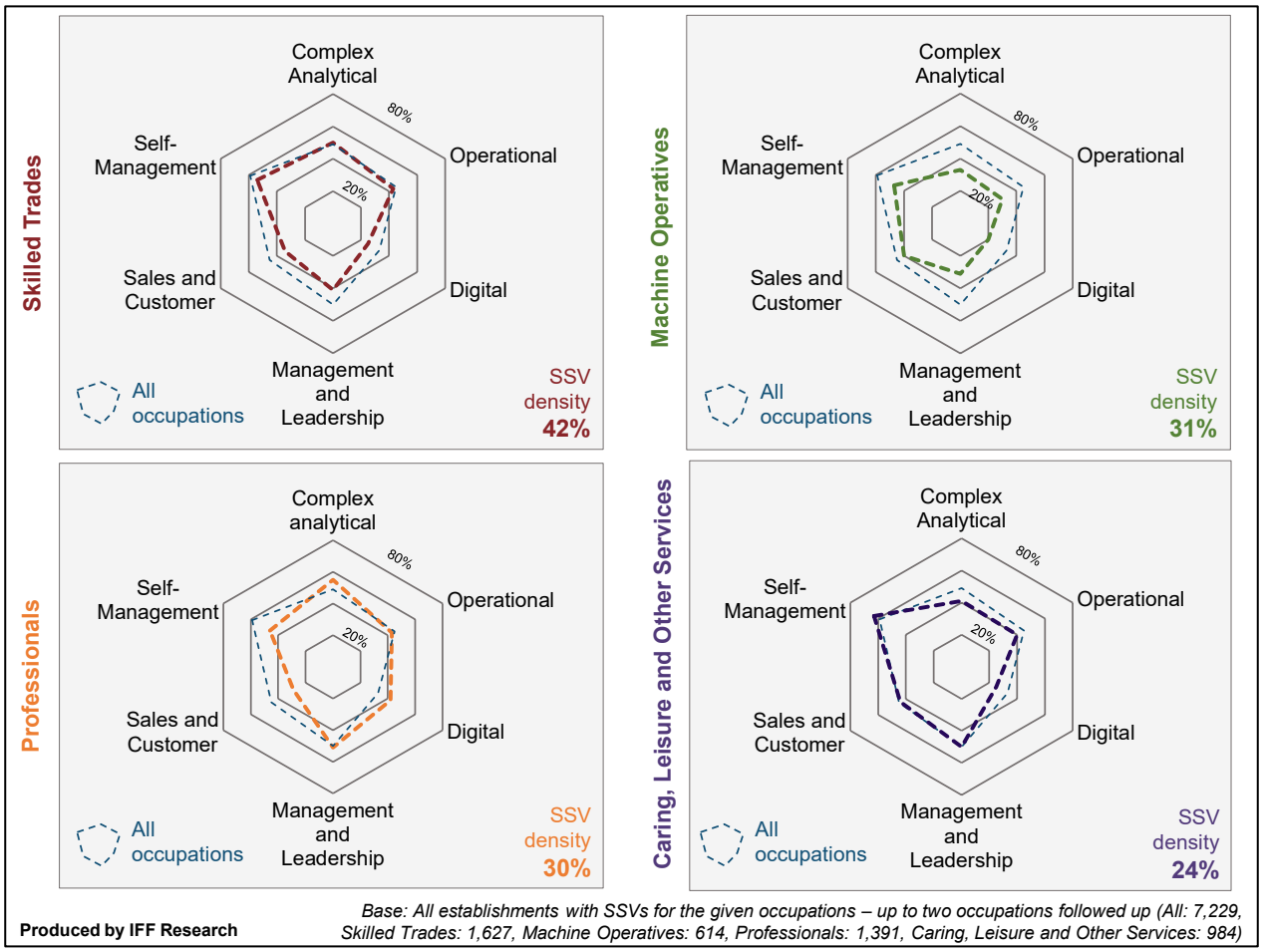


The types of skills lacking by occupation

As discussed earlier in this chapter, there were particular occupations in which there was a notable challenge for employers to recruit sufficiently skilled labour, namely: Skilled Trades, Machine Operatives, Professionals, and Caring, Leisure and Other Services. The broad skills characteristics lacking among applicants for these occupations, relative to the average across all occupations, is illustrated in Figure 3.7.

For Skilled Trades, the types of skills lacking – when looking at the broad groupings of skills – broadly followed a similar pattern to the overall average, though there was less emphasis on digital skills and sales and customer skills. Outside of the skills shown in Figure 3.7, the skills disproportionately reported to be lacking among applicants for Skilled Trades positions included manual dexterity (34% compared with 17% overall), and the ability to adapt to new equipment or materials (30% compared with 22% overall).

Figure 3.7 Types of skills lacking across occupations with the highest density of skill-shortage vacancies (SSVs)



As shown in Figure 3.7, Machine Operative applicants were less likely to lack skills in all six of the broad skill categorisations. Looking at more specific skills, there was a

disproportionate lack of basic numerical skills among applicants for Machine Operatives (40% compared with 30% overall).

For Professionals, Figure 3.7 shows that relative to the overall average, there was a disproportionate lack of digital skills (42% compared with 33% overall). More specifically it was the advanced or specialist IT skills which were disproportionately lacking (36% compared with 21% overall).

For Caring, Leisure and Other Services there was a disproportionate lack of self-management skills among applicants (63% compared with 50% overall). Within this category it was the managing of one's own feelings and handling those of others which was most lacking compared to the average across all occupations (46% compared with 37%).

Tables A.3.6 to A.3.10 in Appendix A provide a full breakdown of the skills lacking in the available labour market, by country, occupation and sector.

The impact of skill-shortage vacancies

Although skill-shortage vacancies are reported by a minority of employers (6%), for those that have them the impact can be significant.

Figure 3.8 shows the impacts reported by employers who had difficulty filling their vacancies because of skill shortages.[24] Most commonly the impact is felt on others in the workforce through increased workloads (85%).

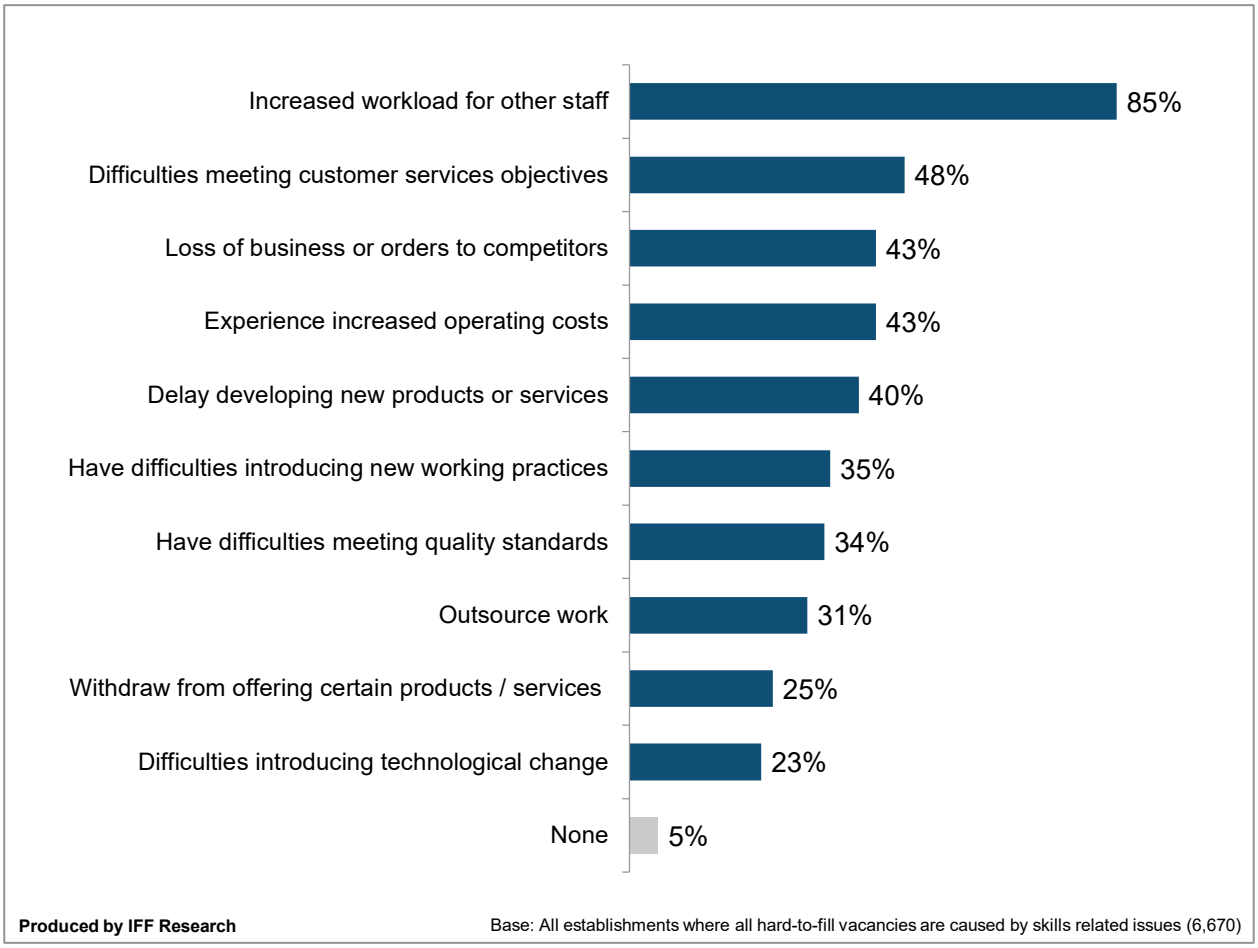
Other impacts include those which would have a direct financial impact on the establishment, such as a loss of business or orders to competitors and increased operating costs (each 43%). A loss of business to competitors was more commonly reported by smaller establishments, whereas increased operating costs were more common among larger establishments.

Other more medium-term impacts include delays to the development of new products or services (40%) and delays to introducing new working practices (35%).

[24] 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, at least in part, by skills-related issues. Given the majority of establishments with hard-to-fill vacancies fell into this group (75%) – 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.

The impacts of skill-shortage vacancies, and the relative prevalence of each impact, has changed very little over the course of the ESS series. Tables A.3.11a and A.3.11b in Appendix A provide a breakdown of the impacts by nation, size of establishment and sector.

Figure 3.8 Impact of skill-shortage vacancies (prompted)

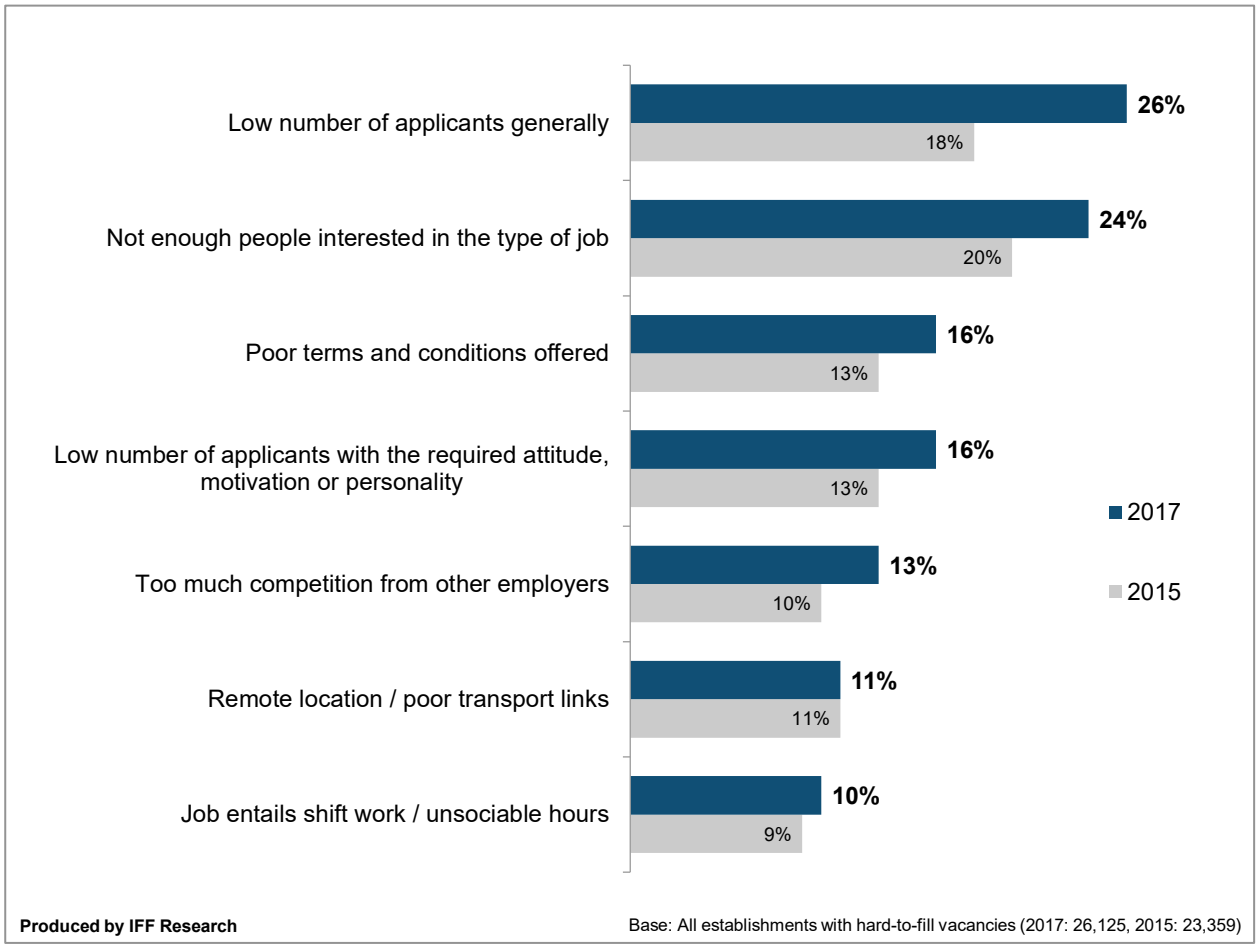


Wider recruitment challenges

The previous sections of this chapter have focussed on vacancies which are hard-to-fill for skills related reasons.[25] Employers may also face other recruitment challenges for reasons unrelated to the skills, qualifications and experience of applicants; such as the nature of the advertised role being unappealing. These 'other' causes for hard-to-fill vacancies are shown in Figure 3.9.

[25] As a reminder, these types of vacancies – termed skill-shortage vacancies − account for 22% of all vacancies in the UK and 67% of all hard-to-fill vacancies.

Figure 3.9 Main non-skills-related causes of having hard-to-fill vacancies (unprompted)



Overall there were 110,000 vacancies that were reported to be hard-to-fill *exclusively* for reasons unrelated to applicants' skills (11% of all vacancies). This represents an 18% increase on the number of non-skills-related hard-to-fill vacancies reported in 2015 (when 10% of all vacancies were caused by reasons unrelated to skills), and, looking further back, around two-and-a-half times the number of such vacancies reported in 2013 (43,000; 7% of all vacancies in 2013).

This means that although these types of vacancies represent a minority of all hard-to-fill vacancies, their rate of growth over time has been greater than that of skill-shortage vacancies[26] and suggests that vacancies which are proving hard to fill for the reasons listed in Figure 3.9 present a growing challenge to employers. As outlined earlier in this

[26] The rate of increase in the number non-skills-related hard-to-fill vacancies is greater than the rate of increase in the number of skill-shortage vacancies – the latter increased by 55% between 2013 and 2017.

chapter, this is to some extent expected given the rise in recruitment activity and tightening labour market.

As detailed in Table 3.2, there was variation by country in the increase of these types of vacancies since 2015. The largest increase was in Scotland where the density of such vacancies increased from 9% of all vacancies in 2015 to 16% in 2017.

Table 3.2 Number and density of non-skills-related hard-to-fill vacancies, by country

		Number of non-skills related hard-to-fill vacancies			% of vacancies that were hard-to-fill for non-skill-related reasons		
	Unwtd. base (2017)	2013	2015	2017	2013	2015	2017
UK	*25,114*	43,000	94,000	110,000	7	10	11
Country							
England	*21,033*	35,000	82,000	93,000	6	10	11
Northern Ireland	*855*	1,000	1,000	2,000	7	7	10
Scotland	*1,827*	5,000	7,000	12,000	9	9	16
Wales	*1,399*	2,000	3,000	3,000	8	9	9

Base: all establishments with vacancies

There was no clear difference in the prevalence of these types of vacancies by employer size, unlike in 2015. However, by sector, there were some notable differences. For instance, the density of non-skills-related hard-to-fill vacancies was highest in Health and Social Work (19%, up from 13% in 2015). In this sector the density of skill-shortage vacancies has remained fairly static in recent years, indicating that difficulties filling vacancies in this sector are increasingly due to non-skills-related reasons (the most common reason in this sector being low numbers of applicants in general – this being a cause, at least in part, for 37% of all hard-to-fill vacancies).

Table A.3.12 in Appendix A details the density of vacancies that were hard-to-fill for non-skills related reasons by size and sector.

By occupation, the density of non-skills-related hard-to-fill vacancies was highest for Caring, Leisure and Other Services occupation (16%). This represents a decrease in density of such vacancies for this occupation compared to 2015 (when the density was 19%), though is still substantially higher than it was in 2013 (9%). Across the other occupations the density of such vacancies had increased, except for Associate Professionals where the density had decreased by two percentage points (from 8% to 6%).

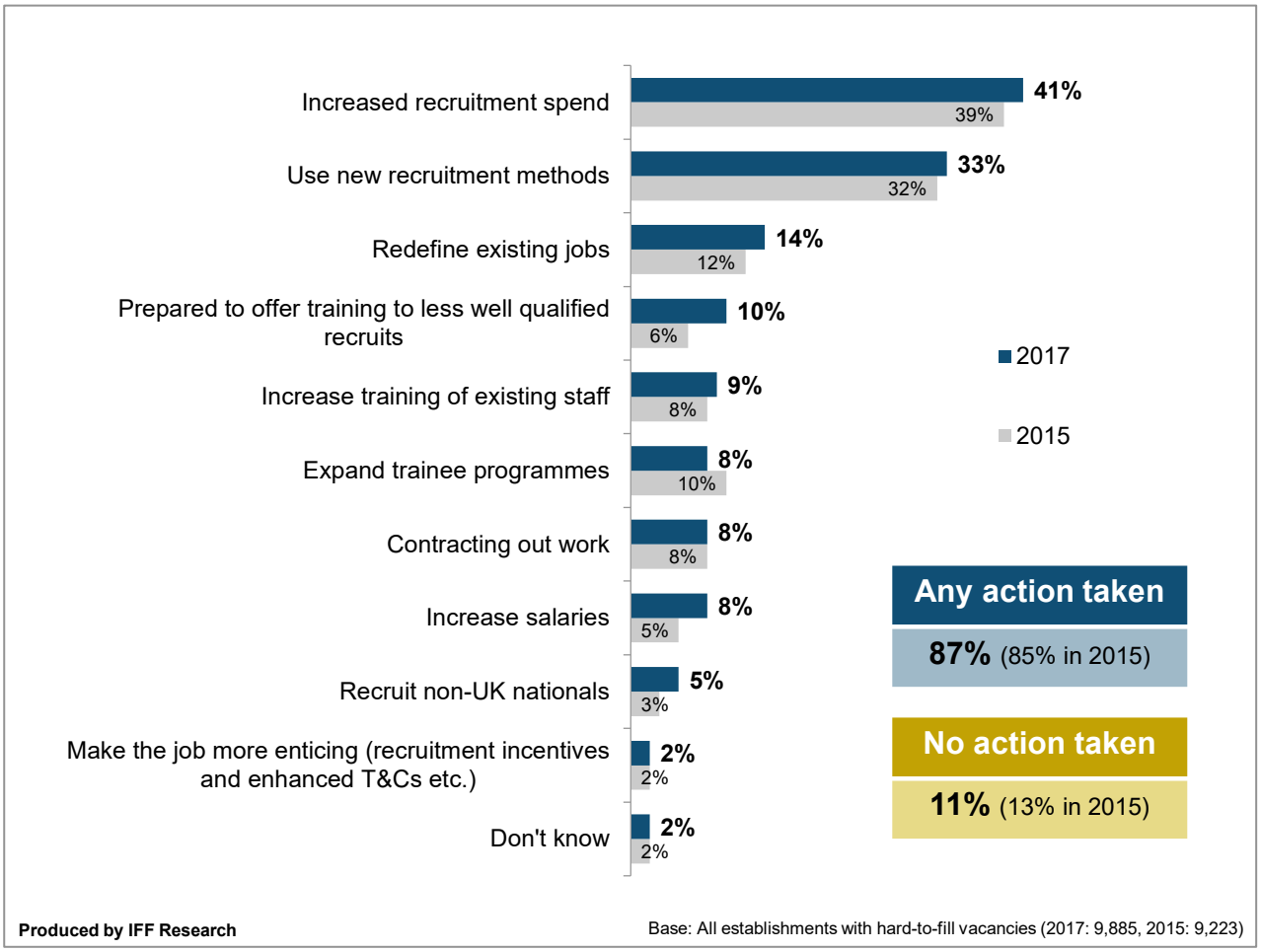
As illustrated in Figure 3.9 there has been a notable increase in the proportion of vacancies which were hard-to-fill, at least in part, due to low numbers of applicants. This increase has largely been driven by a reported lack of applicants for Professionals and Associate Professionals. In 2017, 39% of all hard-to-fill vacancies for Professionals were at least partially caused by low numbers of applicants (up from 22% in 2015), and 23% of all hard-to-fill vacancies for Associate Professionals were at least partially caused by low numbers of applicants (up from 11% in 2015).

Employer response to hard-to-fill vacancies

The vast majority (87%) of establishments that had difficulty filling vacancies had taken action to help overcome these difficulties (compared with 85% in 2015).

As shown in Figure 3.10, the most common actions taken related to altering recruitment methods, either through increased recruitment spend or using new recruitment methods (60% had taken either or both of these actions). Taking recruitment-related action was least common among the very smallest establishments with fewer than five employees (54%, compared with 69% among the largest establishments with 250+ employees). By sector, recruitment-related actions in response to hard-to-fill vacancies were most common among employers in the Public Administration sector (75%), Education (72%), and Health and Social Work (69%). These actions were least common among employers in Construction (52%), Primary Sector and Utilities (53%), and Transport and Storage (53%).

Figure 3.10 Actions taken by employers to overcome hard-to-fill vacancies (unprompted)



Redefining existing jobs was the third most common action taken by employers who were having difficulty filling vacancies (14%). Unlike recruitment-related actions, redefining existing jobs was more commonly taken by smaller establishments than larger ones: 15% of employers with fewer than five employees compared with 11% among those with 250 or more employees.

Other actions where there were notable size or sector differences include:

- Expanding trainee programmes was more common among larger employers (16% among those with 250+ employees) than smaller ones (5% among those with fewer than five employees)
- Increasing salaries was also a more common action among larger employers than smaller ones (14% among those with 250+ employees compared with 7% among those with fewer than five employees)

- Bringing in contractors was more common in certain sectors, including Public Administration (16%), Information and Communications (14%), Business Services (12%), and Construction (11%).

Eleven per cent of employers that had hard-to-fill vacancies reported that they had not taken any action in response to facing these recruitment challenges. Not taking action was much more common among small establishments than larger ones (16% of employers with fewer than five employees had not taken any action, compared with only 3% among those with 250+ employees).

There was also variation by sector in the proportion of employers that had not taken action in response to skill-shortage vacancies, with it being most prevalent in Transport and Storage (17%), followed by Wholesale and Retail (16%), Construction (16%), and Primary Sector and Utilities (15%).

Tables A.3.13a and A.3.13b in Appendix A provide a full breakdown on actions taken in response to hard-to-fill vacancies by country, size and sector.

Recruitment of EU nationals to overcome hard-to-fill vacancies

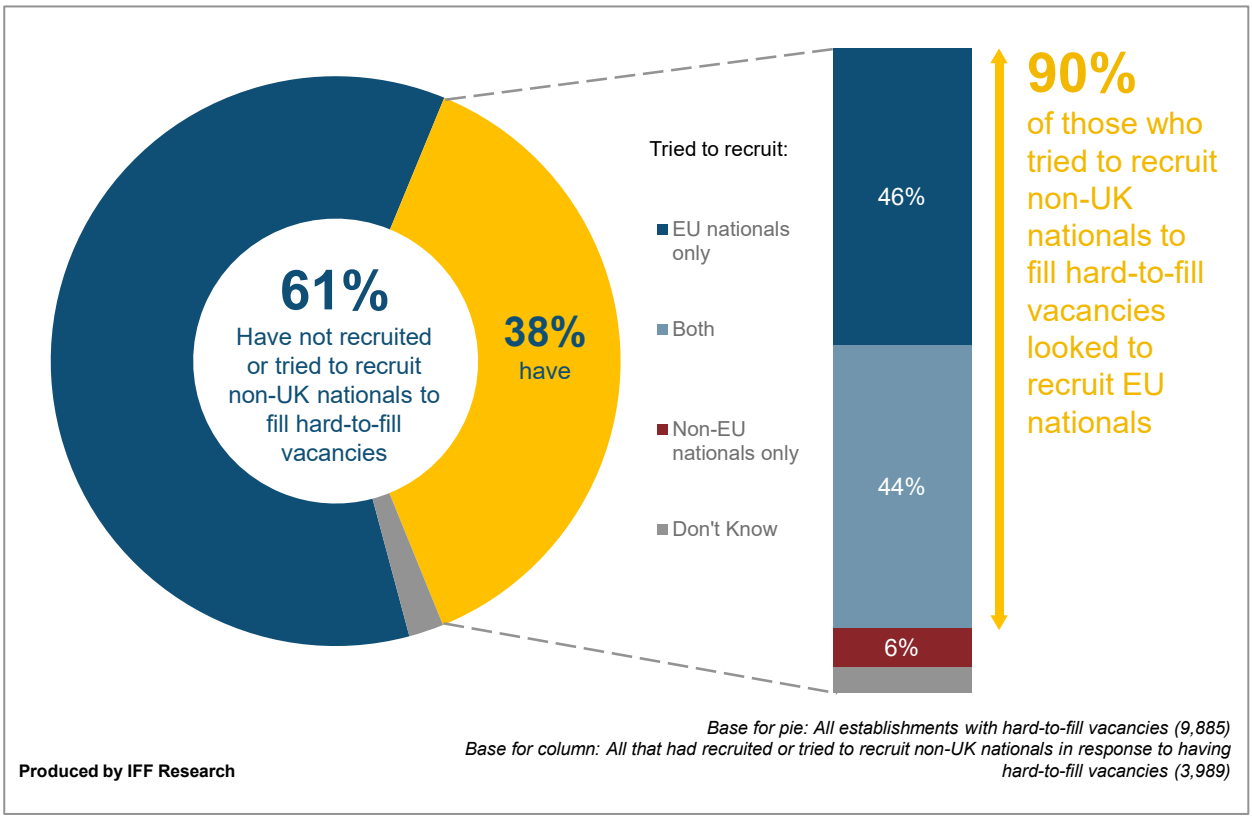
As shown in Figure 3.11, relatively few employers with hard-to-fill vacancies spontaneously reported that they had attempted to recruit non-UK nationals to help overcome their recruitment difficulties. When prompted, however, almost two-fifths (38%) indicated they had sought to recruit non-UK nationals to fill their hard-to-fill vacancies.

For the first time in the ESS series, those who had recruited, or tried to recruit, non-UK nationals to fill hard-to-fill vacancies were asked whether these were from a member state of the European Union, excluding the UK (referred to as 'EU nationals' in this report), non-EU nationals or both.[27]

As shown in Figure 3.11, the vast majority of those seeking to recruit non-UK nationals had been looking to recruit EU nationals (90%, equivalent to 34% of all employers with hard-to-fill vacancies), with this almost evenly split between those that had been looking to recruit EU nationals (46%) and those that had attempted to recruit both EU and non-EU nationals (44%). Few of those seeking to recruit from outside the UK to fill their hard-to-fill vacancies had only been looking for those from outside the EU (6%).

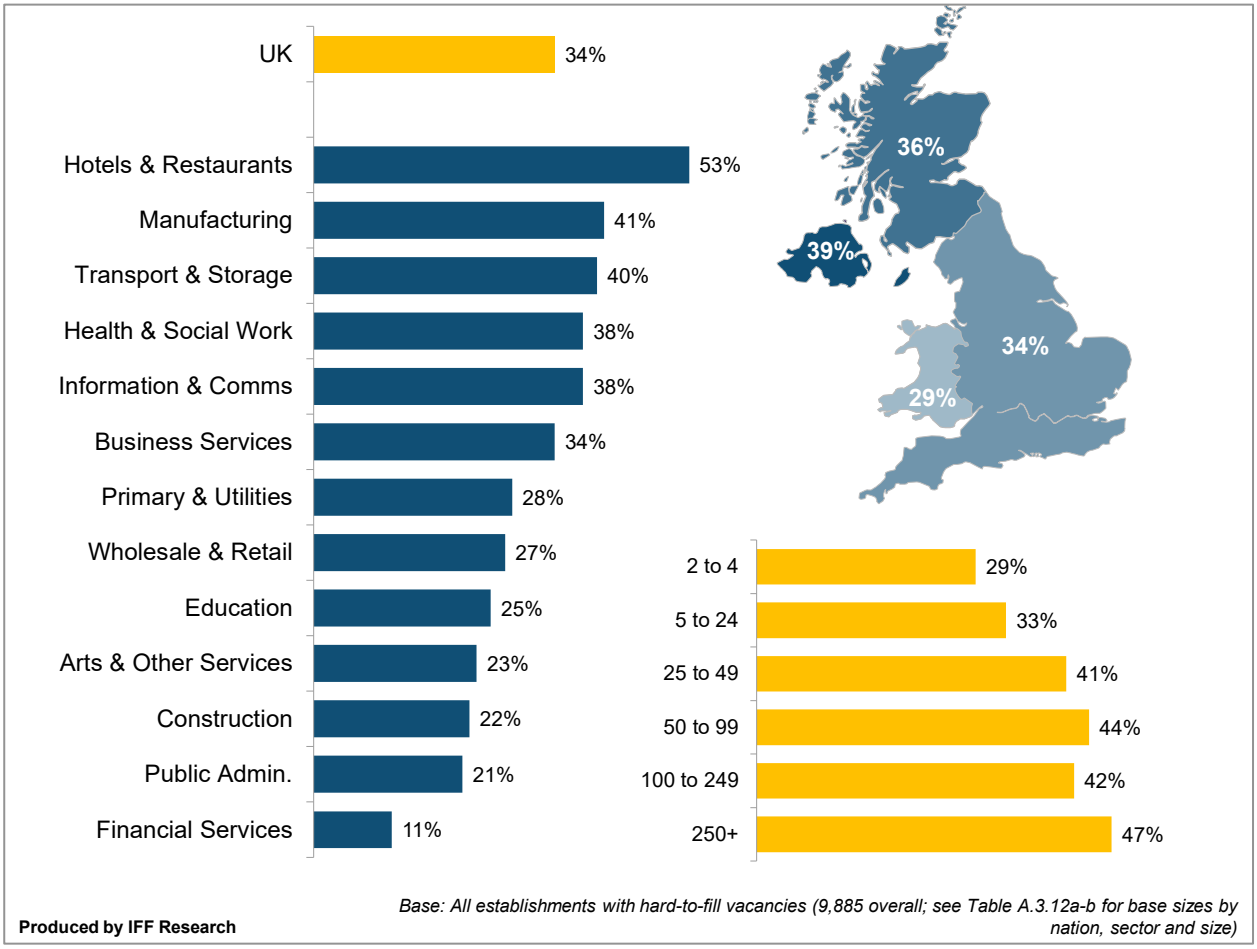
[27] The question asked was: 'When you have recruited, or tried to recruit, workers who are non-UK nationals, were these EU nationals, non-EU nationals, or both?' The question does not therefore distinguish between recruitment of EU or non-EU nationals that were already living in the UK and those that were not.

Figure 3.11 Recruitment of non-UK nationals to overcome hard-to-fill vacancies



Recruitment of EU nationals was a particularly common way of trying to fill hard-to-fill vacancies in the Hotels and Restaurants sector (53%, see Figure 3.12), though it was also above average in Manufacturing, Transport and Storage, Health and Social Work and Information and Communications (in the 38% to 41% range). It was also a common response among employers in London (50%) and employers with more than 25 staff (43%); particularly those with 250 or more employees (47%).

Figure 3.12 Proportion of employers with hard-to-fill vacancies trying to fill these by recruiting EU nationals, by nation, sector and size



Chapter conclusions

The 2017 Employer Skills Survey provides evidence of high levels of recruitment activity among employers, indicative of a growing economy.

As might be expected, given lower unemployment rates and indications of lower net migration, there are challenges for some employers in filling their vacancies. In line with previous years, a third of all vacancies were reported to be proving hard to fill. Applicants lacking the skills, qualifications or experience required by employers were at least a partial cause for most hard-to-fill vacancies. These so called 'skill-shortage vacancies' account for just over one-fifth of all vacancies in the UK and, perhaps contrary to expectations in the context of a tightening labour market, this was consistent with the level reported in 2013 and 2015.

Skill-shortage vacancies have proved to be stubbornly persistent in certain sectors. The Construction sector reported the most acute difficulties in recruiting suitably skilled

labour. Recruitment methods and wider efforts at attracting education leavers may partially explain employer experiences of skill-shortage vacancies. For instance, in the Employer Perspectives Survey 2016, it was reported that reliance on recruitment via word-of-mouth is particularly prevalent within Construction. The same survey also found that relatively few Construction employers conducted work inspiration activities with educational establishments. These may play a part in contributing to this sector's apparent difficulties in recruiting suitably skilled labour (Shury et al., 2017).

Skill-shortage vacancies have also proven a persistent challenge for certain occupations. In particular, Skilled Trades again had the highest density of skill-shortage vacancies. Recent policy focus, including reforms to technical education in England − alongside the drive in recent years across the UK nations to place apprenticeships at the heart of skills policy – are designed to raise the levels of technical skills available in the economy. These policy initiatives should help to address the reported lack of skills in the labour market for occupations such as Skilled Trades.

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

4. The Internal Skills Challenge

Chapter Summary

Although the majority of establishments (87%) reported that all of their staff were fully proficient at their jobs, one in seven employers (13%) had at least one member of staff who was not fully proficient – referred to in this chapter as having a skills gap.

The proportion of the workforce perceived to be lacking proficiency has continued to fall across the UK, from 5.5% in 2011 to 4.4% in 2017. However, this UK-wide decrease in skills gap density has largely been driven by changes in England; the proportion of the workforce judged to be not fully proficient has remained static in Scotland and Wales since 2015 and has increased in Northern Ireland.

As in 2015, the highest density of skills gaps was seen in the Hotels and Restaurants and Manufacturing sectors. At an occupational level, Sales and Customer Service staff were most likely to lack full proficiency at their job (7%), especially those working at large establishments with more than 100 employees.

Transient factors, such as being new to the role or training only being partially complete, were a contributing factor to a majority of skills gaps (76%). However, only around a fifth (22%) of all skills gaps could be entirely explained by transient factors. Most employers with skills gaps mentioned at least one additional cause, the most common being a lack of motivation among staff. Some causes of skills gaps represent a positive tendency for employers to invest in future growth, such as the introduction of new technology, new products and services, or new working practices. These 'positive' factors contributed to fewer skills gaps than in 2015.

Two-thirds of employers with skills gaps (66%) reported that the skills gap had an impact on the performance of their organisation and one in six (17%) reported a *major* impact. Small establishments were less likely to cite any impact, but more likely to cite a major impact.

The vast majority of establishments with skills gaps (85%) had taken action in response and a further 5% had plans to do so in the future. The most common response had been to increase training activity or spending. The Primary and Utilities sector was among the most likely to cite major impacts of skills gaps, but the least likely of all sectors to respond in any way (74%).

As in 2015, the most common skill lacking among staff was time-management and prioritisation of tasks, contributing to nearly three-fifths of all skills gaps (59%). Various management and leadership skills were also lacking in just over half of all skills gaps

(53%); these include: managing and motivating staff, persuading or influencing others, setting objectives and planning resources. Deficiencies in sales and customer skills (49%) and lack of knowledge of an organisation's products, services and processes (49%) also contributed to around half of all skills gaps. Deficiencies in complex analytical skills (43%) and digital skills (35%) are less prevalent than in 2015.

Most employers (62%) reported a need for at least some of their staff to acquire new skills or knowledge in the next 12 months. This need for upskilling was more prevalent in Scotland, in the Public Administration sector, and among Managers. One in eight employers (13%) cited a need for upskilling specifically as a result of the UK's decision to leave the European Union.

In addition to exploring the issues of skills gaps and the need for upskilling, ESS also looks into the skills imbalances arising from staff being under-utilised. One-third of employers (35%) had at least one member of staff with both qualifications *and* skills more advanced than required for their current job role, an increase from 30% of employers in 2015. UK-wide, 2.5 million workers are under-utilised, representing 9% of the UK workforce - approximately double the proportion with skills gaps. The proportion of staff identified as being under-utilised has increased since 2015 (7%) and is highest in the Hotels and Restaurants sector (16%) and among employers with 2 to 4 staff (20%).

Introduction

Despite strong job-creation and historically low levels of unemployment[28], the post-recession economic recovery in the UK has been characterised by below-average productivity, compared with other G7 economies.[29]

Since the UK's decision to leave the European Union in June 2016, the importance of workplace skills as a driver of productivity growth has seen increased political interest,[30] not only in terms of protecting investment in skills development through an uncertain economic climate, but also ensuring that UK businesses remain competitive in a changing global marketplace.

The previous chapter explored the difficulties that UK employers face when recruiting staff with the skills they need. While recruitment activity across the economy has

[28] ONS Labour Market Bulletin, 2017
[29] ONS International comparisons of UK productivity, first estimates: 2016 (October 2017)
[30] Industrial Strategy: Building a Britain fit for the future

increased since 2015, the proportion of vacancies that are hard to fill as a result of skill-shortages remains largely unchanged.

A shortage of skills in the labour market can manifest itself not only through recruitment difficulties, but also through the related issue of skills gaps within the existing workforce. Rather than a vacancy remaining unfilled, a job may instead be performed by an employee who lacks full proficiency in that role. Some of these skills gaps may result from healthy innovation or be a natural and temporary condition after recruiting entry-level employees. However, some skill gaps may be the result of ineffective training and skill acquisition, or the result of consistently high levels of employee turnover. Particularly when persistent, a skills gap can hinder an establishment's ability to function effectively and harm its productivity and profitability.

It is worth bearing in mind that the survey only captures what employers are aware of and report. Arguably, employers that pay little attention to their employees' skills and the needs of their organisation may be less likely to report skill gaps. Others[31] have termed these 'latent skill gaps'.

The chapter covers the incidence, volume, profile and causes of reported 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 employers' organisations, and their response to address these issues.

In addition to exploring the skills perceived to be lacking among existing staff, the chapter also looks at upskilling – whether employers anticipating that staff will need to acquire *new* skills over the next 12 months.

Finally, this chapter discusses the related issue of under-use of skills. This sort of skills imbalance occurs when employees have both qualifications *and* skills more advanced than required for their current job role.

Incidence, volume and density of skills gaps

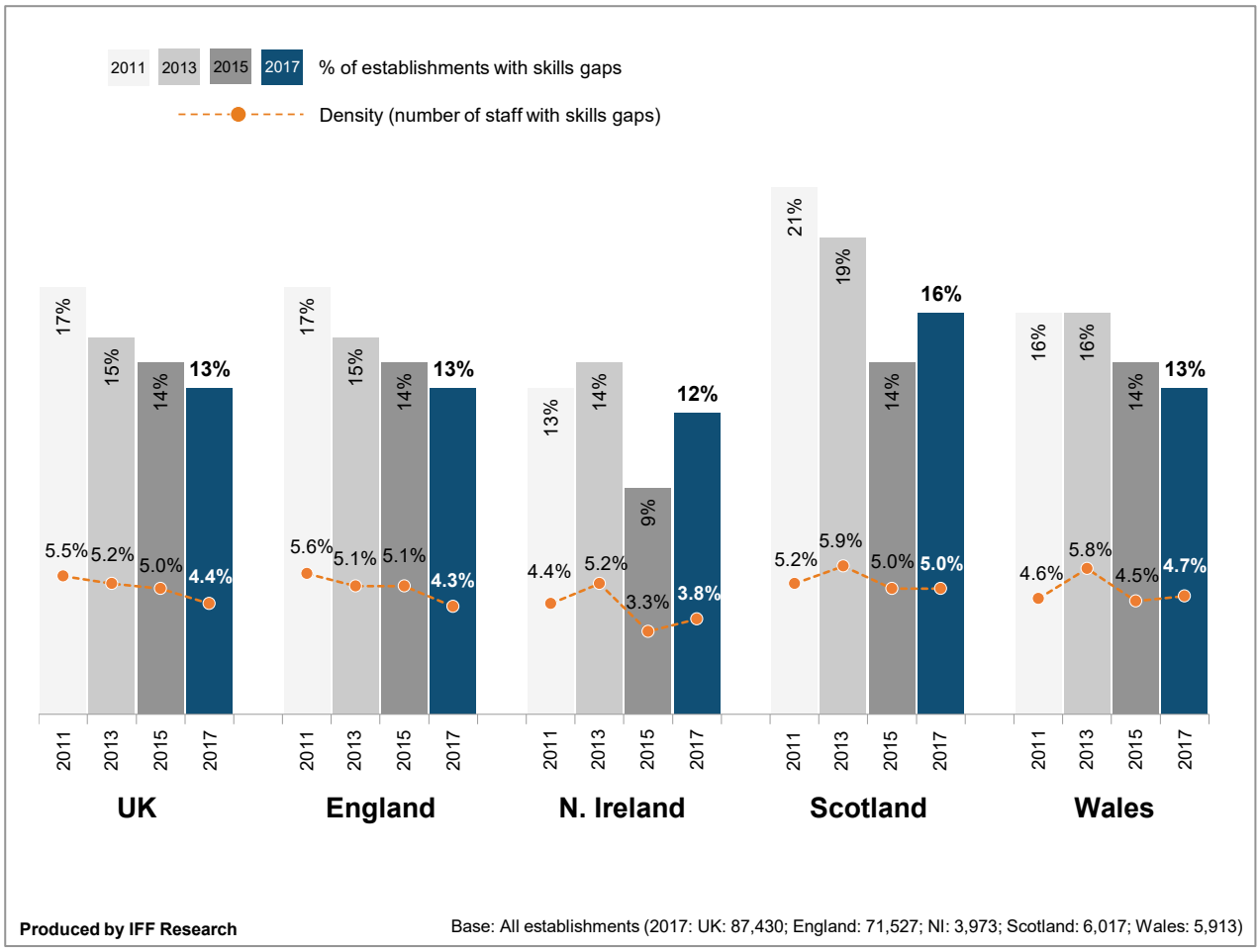
A majority of employers (87%) reported that all of their staff were fully proficient at their job. As shown in Figure 4.1, the number of establishments who reported that at least some of their staff were not fully proficient has continued to fall steadily over time, from 17% in 2011 to 13% in 2017.

[31] https://warwick.ac.uk/fac/soc/ier/publications/2001/hogarth_and_wilson_2001_synthesis.pdf

Similarly, skills gap density (the proportion of the workforce lacking full proficiency) has also continued to fall. Skills gap density refers to the number of staff perceived to be lacking proficiency, as a proportion of all staff. This proportion has fallen from 5.5% in 2011 to 4.4% in 2017. In total, 1.27 million employees across the UK were felt to be lacking proficiency.

The UK-wide decrease in skills gap density since 2015 has largely been driven by a decrease in skills gaps density in England. While skills gap density in England has fallen from 5.1% in 2015 to 4.3% in 2017, it has remained largely unchanged in Scotland and Wales. In Northern Ireland, skills gap density has increased, though it has remained below the levels found in 2013 and 2011.

Figure 4.1 Incidence and density of gaps over time by country

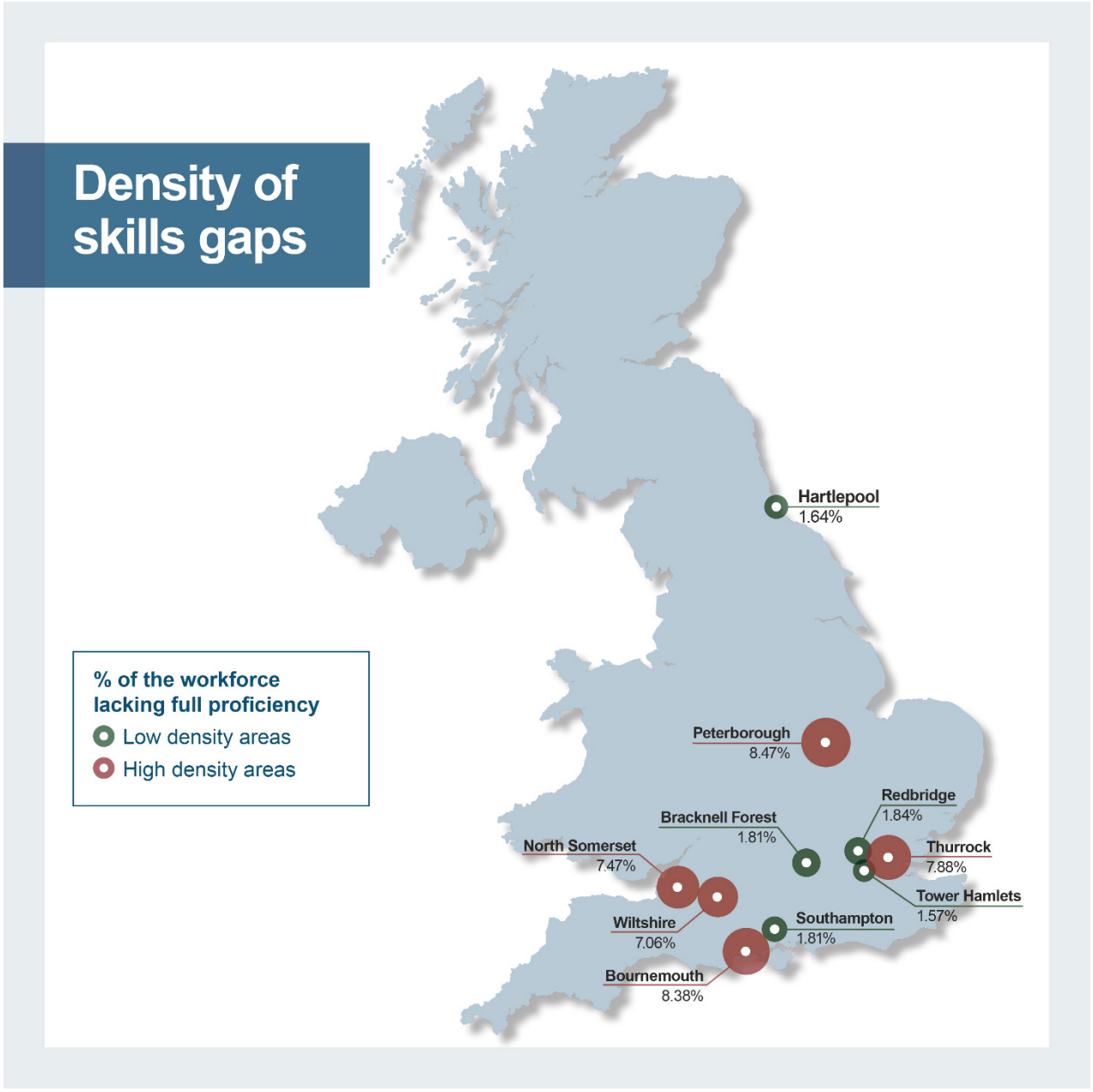


As discussed in the previous chapter, the UK government announced in its White Paper 'Industrial Strategy: Building a Britain fit for the future' the introduction of local Skills Advisory Panels to analyse supply and demand for skills at a local level and work with local industry to ensure that skills provision is optimally linked with where it is needed. ESS 2017 allows analysis of skills issues at a local level and Figure 4.2 shows the Local

Education Authorities (LEAs) in England with the highest and lowest proportion of the workforce who lack full proficiency in their role.

For example, while the proportion of workers in Southampton who lack full proficiency is among the lowest in the country (1.8%), the density of skills gaps in the neighbouring city of Bournemouth is more than four times higher at 8.4%. Detailed local level data has been published alongside this report on the gov.uk website.

Figure 4.2 Local Education Authorities in England with the highest and lowest densities of skills gaps[32]



Returning to UK-wide analysis, the proportion of establishments reporting at least one member of staff lacking full proficiency increases with the size of the establishment to nearly half (43%) of those with more than 250 employees, compared with only 6% of establishments with 2 to 4 employees.

[32] Regional data sets for England, Northern Ireland, Scotland and Wales is available on the gov.uk website. (Note that LEAs with a base size of fewer than 100 establishments have been excluded from Figure 4.2)

However, in addition to this, the *density* of skills gaps also tended to be lower among smaller establishments. Establishments with 2 to 4 employees described a smaller proportion of their workforce as not fully proficient (2.5%) than did those with 5 to 24 employees (4.3%) and sites with 25 or more employees (4.7%).

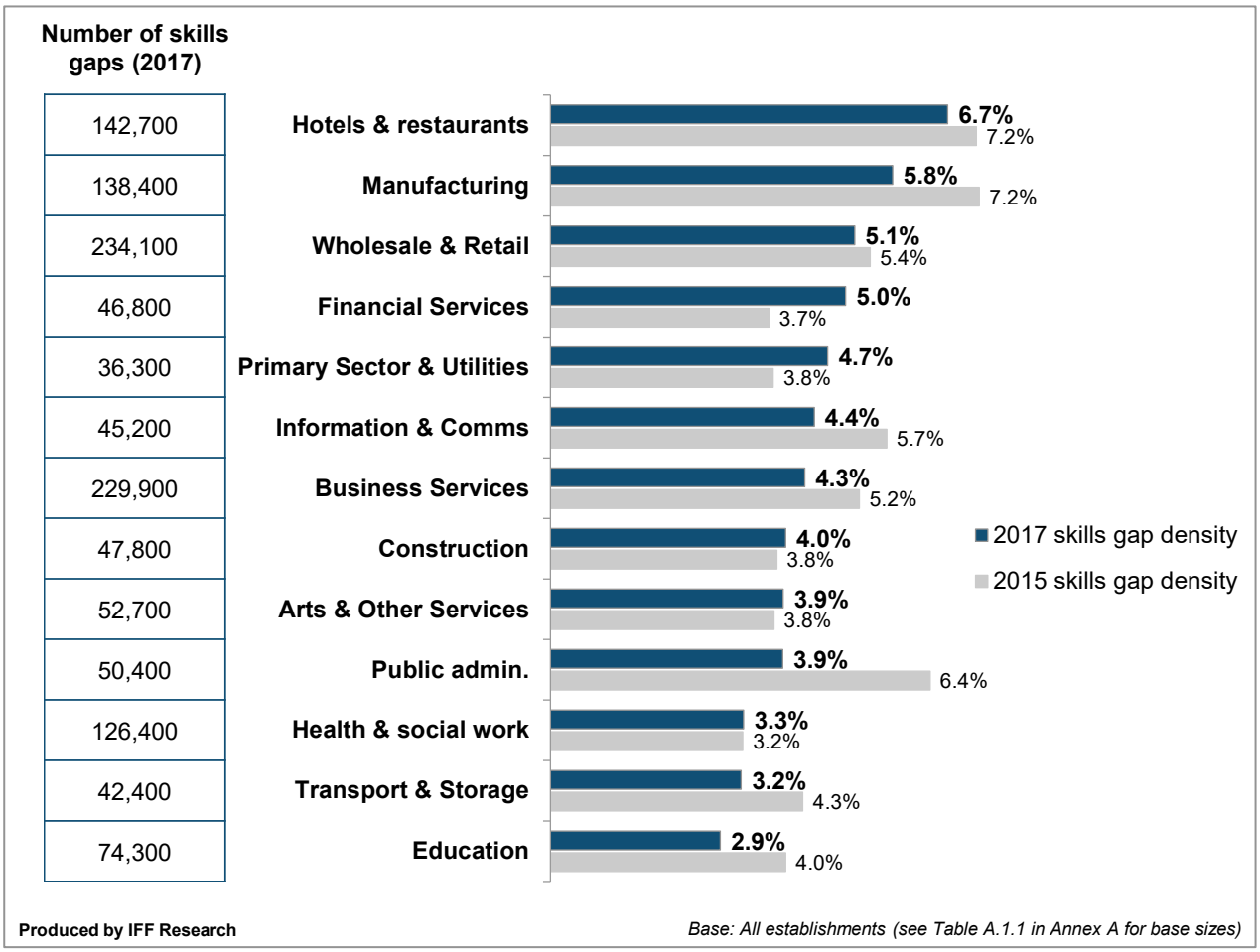
Tables A.4.1a and A.4.1b in Appendix A provide a detailed breakdown of the incidence, number and density of skills gaps by size of establishment and sector. Table A.4.2 in Appendix A provides the density of skills gap by country.

Sectoral distribution of skills gaps

The overall decrease in skills gap density at a UK level is broadly reflected across most sectors of the economy, as shown in Figure 4.3. Hotels and Restaurants (6.7%) and Manufacturing (5.8%) remain the two sectors with the highest proportions of their workforces lacking full proficiency, albeit at lower levels than in 2015. Public Administration saw a particularly large decrease in skills gap density, from 6.4% in 2015 to 3.9% in 2017. That said, Public Administration also saw the largest decrease of all sectors in total employment between 2015 and 2017 (-5%) – it may be the case that this reduction in employment has disproportionately affected staff lacking full proficiency, thus causing a decrease in skills gap density in this sector.

Some sectors saw a rise in the proportion of the workforce lacking full proficiency from 2015 to 2017. In the Primary and Utilities sector, skills gap density increased from 3.8% in 2015 to 4.7% in 2017 and a similar change was seen in the Financial Services sector (3.7% to 5.0%).

Figure 4.3 Density of skills gaps by sector



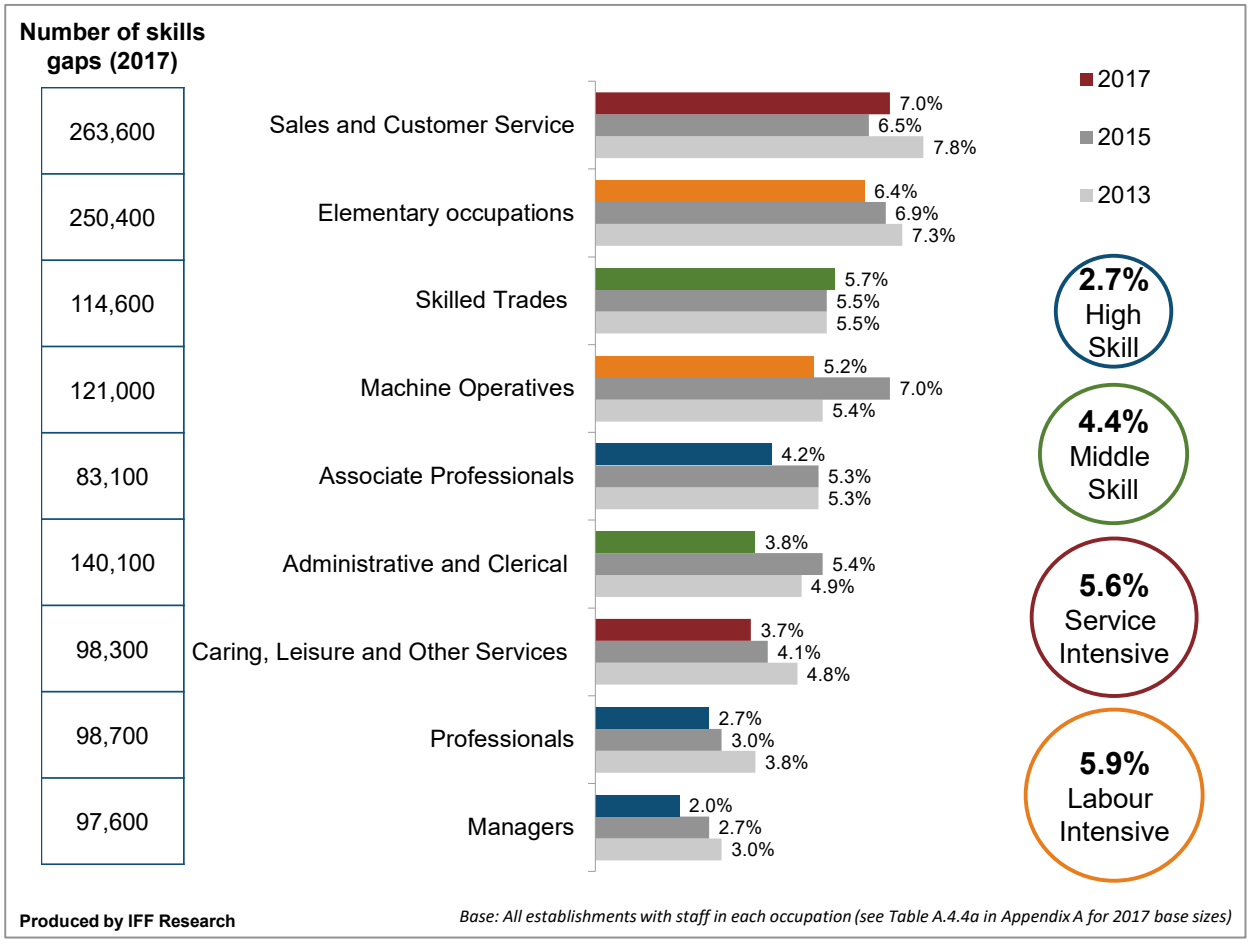
While skills gap *density* was highest in the Hotels and Restaurants, and Manufacturing sectors, the highest *number* of skills gaps existed among establishments in the Wholesale and Retail sector (234,100 skills gaps) and the Business Services sector (229,900). Together these two sectors accounted for 37% of all skills gaps, though this is to be expected given these sectors also account for around a third of all employment (34%).

Despite having the lowest skills gap density overall, Northern Ireland saw a particularly high density of skills gaps in the Hotels and Restaurants sector (8.3%). In Scotland, skills gap density was higher than the overall UK level in Manufacturing (7.2% compared with 5.8%) and Wholesale and Retail (6.8% compared with 5.1%). Sectors where skills gap density was highest in Wales included Financial Services (7.7%) and Hotels and Restaurants (7.3%).

Occupational distribution of skills gaps

As shown in Figure 4.4, labour-intensive and service-intensive occupations were more likely to experience skills gaps than managerial and professional occupations. This pattern was broadly consistent with previous years.

Figure 4.4 Number and density of skills gaps by occupation



Similar to the trend seen at the overall level, most occupations saw a decrease in the proportion of staff lacking full proficiency from 2015 to 2017. Machine Operatives, the occupation with the highest skills gaps density in 2015, saw a particularly large decrease from 7.0% to 5.2%, though this figure remained high in Scotland (6.7%).

At a national level, skills gap density was higher in Wales for Professionals compared with the UK level (5.0% compared with 2.7%). In Northern Ireland the density of skills gaps among Skilled Trades occupations was higher than the UK average (7.5% compared with 5.7%).

Sales and Customer Service occupations had the highest density of skills gaps, with this increasing from 6.5% in 2015 to 7.0% in 2017. Despite only accounting for 13% of all employment, these occupations accounted for 21% of all skills gaps. Within Sales and

Customer service occupations, there was considerable variation in skills gap density by establishment size, increasing from 4.2% in establishments with 2 to 4 employees to 8.4% among those with more than 100 staff.

Density of skills gaps by occupation within sector

There were also some particularly marked occupational patterns within sectors, as shown in Table 4.1.

While skills gap density among Sales and Customer Services occupations was the highest of all occupations, skills gap density was especially high among these staff within the Primary and Utilities (18%), Education (13%) and Financial Services (12%) sectors. These represent newly emerging pockets of high skills gaps density; in 2015, skills gap density among Sales and Customer Services occupations in each of these sectors was below 7%.

Skills gap density was also particularly high among Skilled Trades occupations within the Public Administration sector (10%). While Managers had the lowest skills gap density overall (2.0%), this figure was more than double among Managers in the Manufacturing sector (4.4%).

Tables A.4.3 and A.4.4 in Appendix A provide detailed breakdowns of skills gap density by occupation within country and sector respectively.

Table 4.1 Density of skills gaps by occupation within sector (percentage of staff not fully proficient)

Those where density was 10% and over

Those where density was 7% and over (but less than 10%)

Those where density was 4.4% and over (but less than 7%)

Those where density was less than 4.4%

	UK	Sales and customer services staff	Elementary staff	Skilled trades occupations	Machine operatives	Associate professionals	Administrative/ clerical staff	Caring, leisure and other services	Professionals	Managers
UK	**4.4**	**7.0**	**6.4**	**5.7**	**5.2**	**4.2**	**3.8**	**3.7**	**2.7**	**2.0**
Hotels & restaurants	**6.7**	7.5	8.4	6.1	6.2	4.6	4.9	6.4	0.8	2.6
Manufacturing	**5.8**	7.5	6.0	5.4	7.0	5.3	4.2	**	4.5	4.4
Wholesale & Retail	**5.1**	6.1	7.0	5.5	5.7	3.5	3.3	6.5	2.3	2.2
Financial Services	**5.0**	12.1	5.7	0.7	**	2.7	4.6	**	3.8	1.0
Primary Sector & Utilities	**4.7**	18.2	6.6	4.6	4.7	3.5	3.4	7.4	3.4	1.7
Information & Communications	**4.4**	9.0	4.4	5.5	4.8	3.8	4.5	**	4.1	1.3
Business Services	**4.3**	7.0	6.4	6.6	4.7	6.1	3.9	3.6	2.8	1.6
Construction	**4.0**	5.4	6.6	6.0	4.3	4.9	3.2	**	3.2	1.4
Public Administration	**3.9**	4.3	4.8	10.1	6.9	2.8	3.3	3.2	3.1	3.0
Arts & Other Services	**3.9**	7.8	5.0	4.9	2.6	3.0	3.6	4.2	2.3	1.8
Health & social work	**3.3**	6.9	3.4	1.8	1.1	2.7	4.0	3.7	2.4	1.7
Transport & Storage	**3.2**	5.8	4.2	2.3	3.0	3.2	2.6	12.3	1.4	1.8
Education	**2.9**	13.2	3.5	5.5	1.3	2.7	3.4	3.1	2.2	1.7

Base: All establishments employing each occupation, by sector (see Table A.4.4 in Appendix A)

** denotes a figure not shown because of a low base size (fewer than 30 establishments)

Figures in italics denote a base size between 30 and 49 establishments

Causes of skills gaps

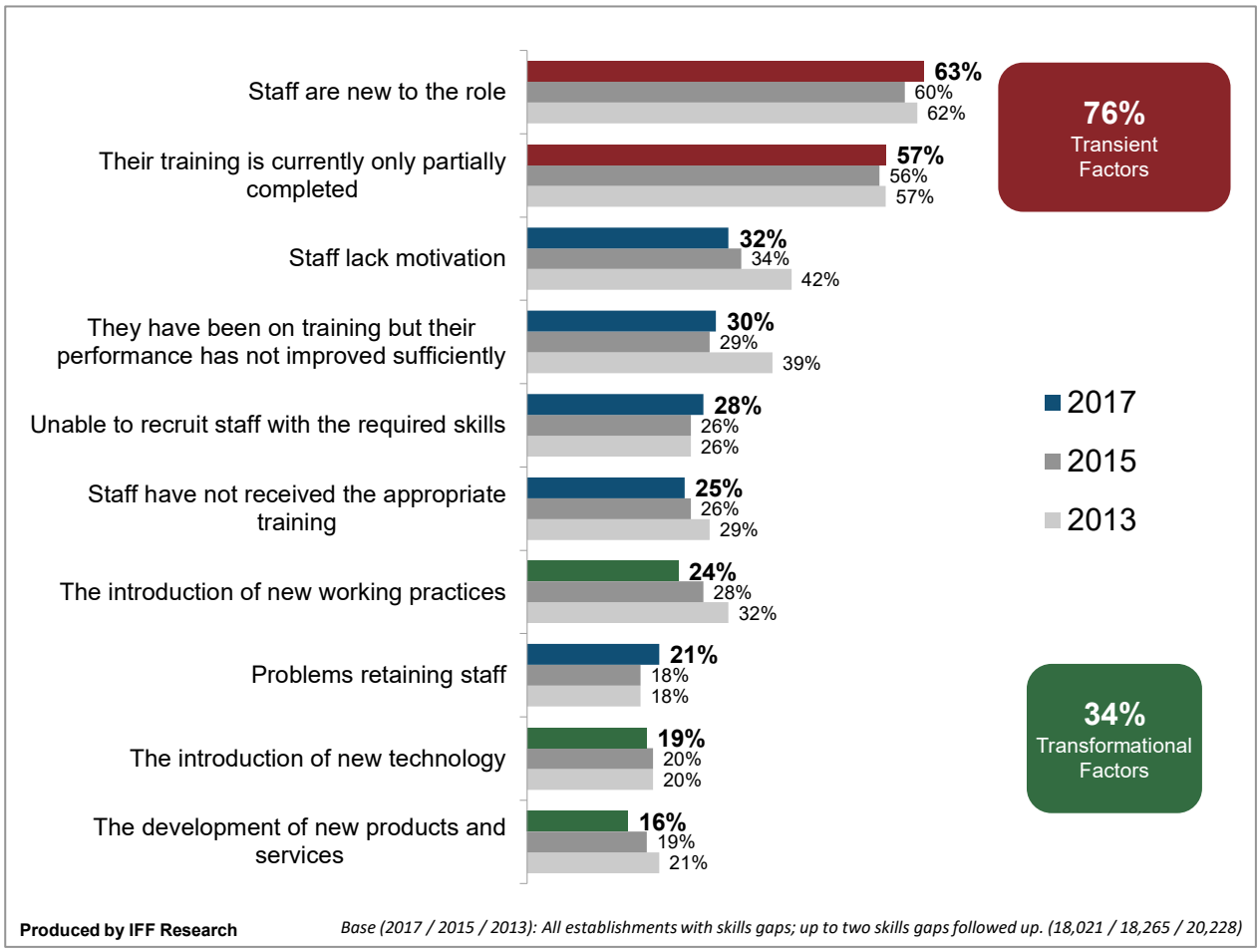
Transient causes

The majority of skills gaps were caused, at least in part, by transient factors – factors which would be expected to ease naturally over time.[33] The fact that staff were new to the role contributed to nearly two-thirds (63%) of all skills gaps, and a broadly similar proportion of skills gaps (58%) were caused at least in part by the fact that employees' training was only partially complete. Combined, these transient factors contributed to three-quarters (76%) of all skills gaps, an increase from 2015 (73%).

However, while a majority of skills gaps were at least partly caused by transient factors, only 22% of skills gaps could be *entirely* explained by factors related to new staff or those who have not completed that one would expect to resolve themselves with time. A majority of employers with skills gaps also suggested additional causes. These factors are presented in Figure 4.5.

[33] Of course, consistently high levels of staff turnover would have the effect of a persistent skills gap. 14% of employers who reported a transient cause of skills gaps also said that problems retaining staff were a contributing factor. We stick with the 'transient' terminology for brevity's sake.

Figure 4.5 Main causes of skills gaps (prompted)



In some sectors, a smaller proportion of skills gaps were caused entirely by transient factors, suggesting that internal skills deficiencies are more entrenched. For example, in the Transport and Storage sector, only one in eight skills gaps (13%) were caused entirely by transient factors, compared with 22% UK-wide. Causes which were more prevalent in this sector compared with the average across all sectors include:

- Staff having been on training but their performance not improving sufficiently (51% compared with 31% overall)
- Staff lacking motivation (44% compared with 32%)
- Problems retaining staff (31% compared with 21%)
- The development of new products and services (26% compared with 16%), and
- English not being the first language of staff (6% compared with 1%).

In the Primary and Utilities sector, around one in six skills gaps (17%) were caused entirely by transient factors. English not being the first language of staff contributed to 8% of skills gaps in this sector – much greater than the average across all sectors (1%).

Other sectors where a lower proportion of skills gaps can be explained solely by transient factors include the Public Administration (18%) and Education (17%) sectors. Within the Public Administration sector, problems retaining staff contributed to a higher than average proportion of skills gaps (26%). Not receiving appropriate training also contributed to more skills gaps within this sector (31% compared with 25% overall). Within the Education sector, new working practices contributed to more than a third (35%) of all skills gaps, higher than the proportion across all sectors (24%).

Non-transient causes[34]

Staff lacking motivation remains the most common non-transient cause of skills gaps (32%). While this proportion has fallen from 34% in 2015 and 42% in 2013, it remains a significant cause of skills gaps among elementary staff (44%).

As in 2015, issues related to training were also a prominent cause of skills gaps. Staff having been on training but their performance not improving sufficiently contributed to nearly a third of all skills gaps (30%). Staff not receiving appropriate training contributed to one quarter (25%) of skills gaps, an issue that was more prevalent in the public administration and manufacturing sectors (31% and 30% respectively), as well as among managers (39%).

Just over a quarter (28%) of skills gaps were caused at least in part by an inability to recruit staff with the required skills. This factor was especially common in sectors and occupations with particularly high levels of skill-shortage vacancy density such as: the Manufacturing sector (36%), Skilled Trades occupations (35%) and Machine Operatives (38%).

Positive transformational causes

There are some workplace activities which, although a cause of skills gaps in the short-term, represent a positive tendency for employers to invest in future growth. In 2017 34% of skills gaps were caused by these sorts of factors compared with 37% in 2015. The introduction of new working practices contributed to 24% of skills gaps (down from 28%

[34] These are less likely to have an obvious, natural end in sight for a given employee. I.e. a lack of motivation might simply be temporary, but we would not expect it to naturally resolve itself in the same way as a new recruit completing their induction.

in 2015). A similar downward trend can be seen in the proportion of skills gaps caused by the introduction of new technology (19%, down from 20%), and the development of new products and services (16%, down from 19%).

Tables A.4.5 and A.4.6 in Appendix A provide breakdowns of the most common causes of skills gaps by sector and occupation.

The profile of causes of skills gaps in Wales was somewhat different to the rest of the UK. While more skills gaps are caused at least in part by transient factors (87%), fewer gaps than average can be solely attributed to transient factors (17%). Not having received appropriate training contributed to 38% of skills gaps in Wales, higher than 25% nationwide. Positive transformational causes were also more prevalent among Welsh employers, this includes:

- The introduction of new working practices (contributed to 41% of skills gaps in Wales)
- The introduction of new technology (33%)
- The development of new products and services (28%).

Skills lacking internally

This section examines the specific skills that employers perceived to be lacking among their workforces. These can be broadly grouped into two categories:

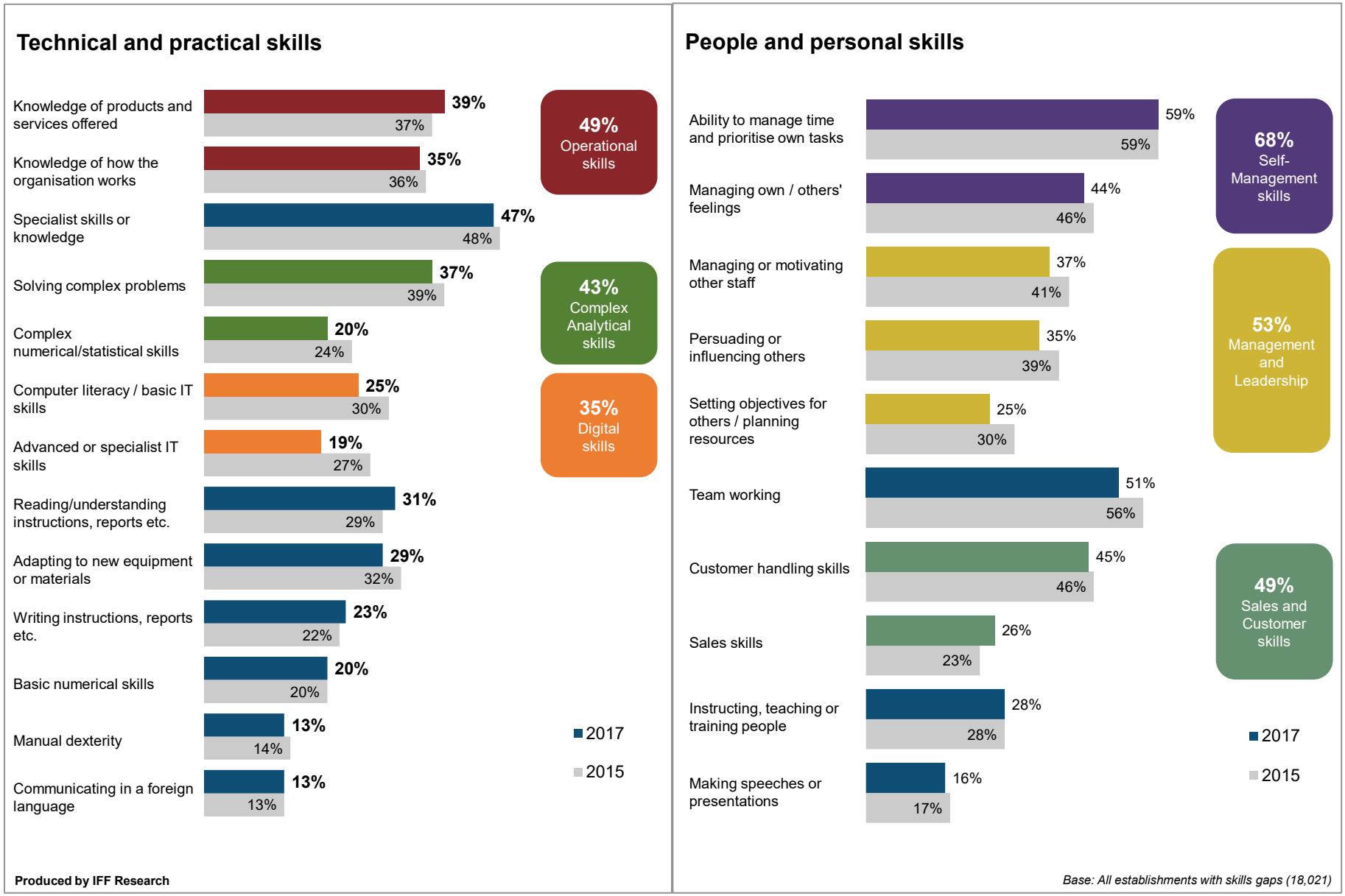
- **Technical and practical skills** – these are the specific skills required to perform the specific functions of a job role.
- **People and personal skills** – these are the 'softer', less tangible skills required to manage oneself and interact with others in the workplace.

There has been little change since 2015 in terms of the types of skills that employers most commonly judged to be deficient among their workforce. Figure 4.6 shows a full list of these skills, as well as the proportion of all skills gaps for which each skill was a contributing factor.

Technical and practical skills

A deficiency in specialist skills or knowledge required to perform the job role was a contributing factor to nearly half of all skills gaps (47%), rising to six in ten in the Education and Health and Social Work sectors (58% and 62% respectively).

Figure 4.6 Skills lacking among staff with skills gaps



A lack of knowledge of a company's products, services, and internal processes was also common. A need to improve these sorts of operational skills was a contributing factor for half (49%) of all skills gaps and was more prevalent in the Wholesale and Retail (57%) and Hotels and Restaurants (57%) sectors. There is no evidence that a shortage of these operational skills is a result of staff being new to the role or not yet having completed training. Indeed, the proportion of skills gaps caused by deficiencies in operational skills remains unchanged (49%) even when excluding employers whose skills gaps are caused entirely by transient factors.

A lack of proficiency in complex analytical skills contributed to 43% of all skills gaps: this proportion was greater among establishments in the Business Services (51%) and Public Administration (50%) sectors, as well as among establishments in Wales (57%).

Just over a third of all skills gaps (35%) involved a deficiency in digital skills. This includes both basic computer literacy and IT skills (25%) as well as more advanced or specialist IT skills (19%). The proportion of skills gaps that can be at least partly attributed to a lack of proficiency in digital skills was lower than in 2015 but remained persistently high among establishments in the Public Administration (50%) and Education (42%) sectors, as well as among establishments with 2 to 4 employees (40%).

Among employers in Wales, around one in five skills gaps involved a need to improve written Welsh language skills (22%) and oral Welsh language skills (20%).

Tables A.4.7a-e in Appendix A present the skills lacking in the workforce by occupation, nation and sector.

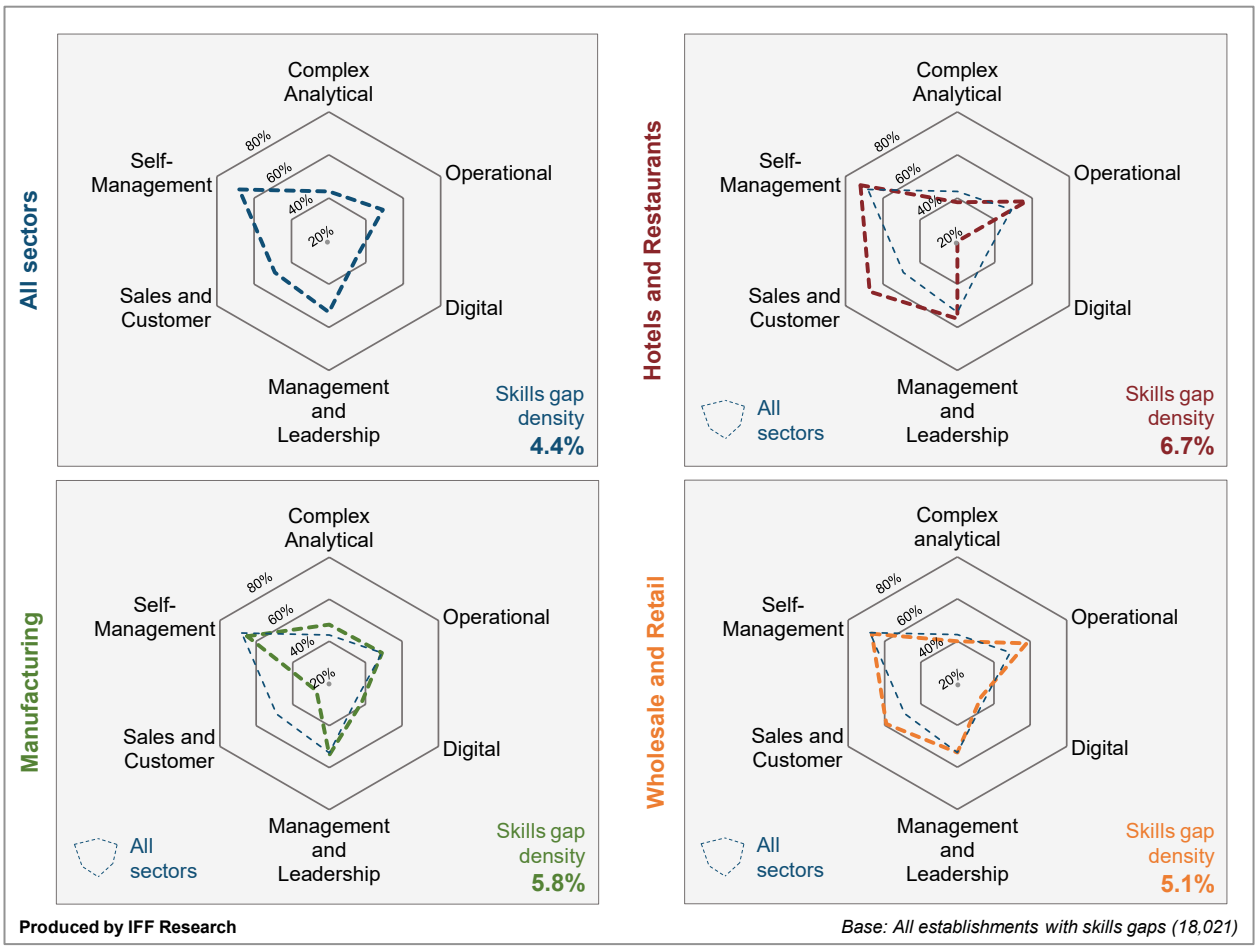
People and personal skills

As in 2015, the most common people or personal skill found to be lacking among staff related to poor time management and prioritisation of tasks, which contributed to 59% of all skills gaps. Indeed, this was also most commonly deemed to be the *main* skill lacking among staff lacking full proficiency (12% of all skills gaps). Together with the ability to manage one's own feelings and handle the feelings of others, which contributed to more than four in ten skills gaps (44%), two-thirds of all skills gaps (68%) related to what can broadly be categorised as 'self-management skills'.

A lack of management and leadership skills contributed to more than half of all skills gaps (53%); this was more common among staff lacking proficiency in the Education (59%) and Health and Social Work (61%) sectors.

As shown in Figure 4.7, two-thirds of skills gaps in the Hotels and Restaurants sector (67%) and three-fifths in the Wholesale and Retail sector (59%) were caused at least in part by a lack of proficiency in sales and customer service skills, above the all-sector average of 49%. Operational skills were also more likely than average to be lacking among staff lacking proficiency in these sectors (57% and 57% respectively).

Figure 4.7 Skills lacking in sectors with highest density of skills gaps

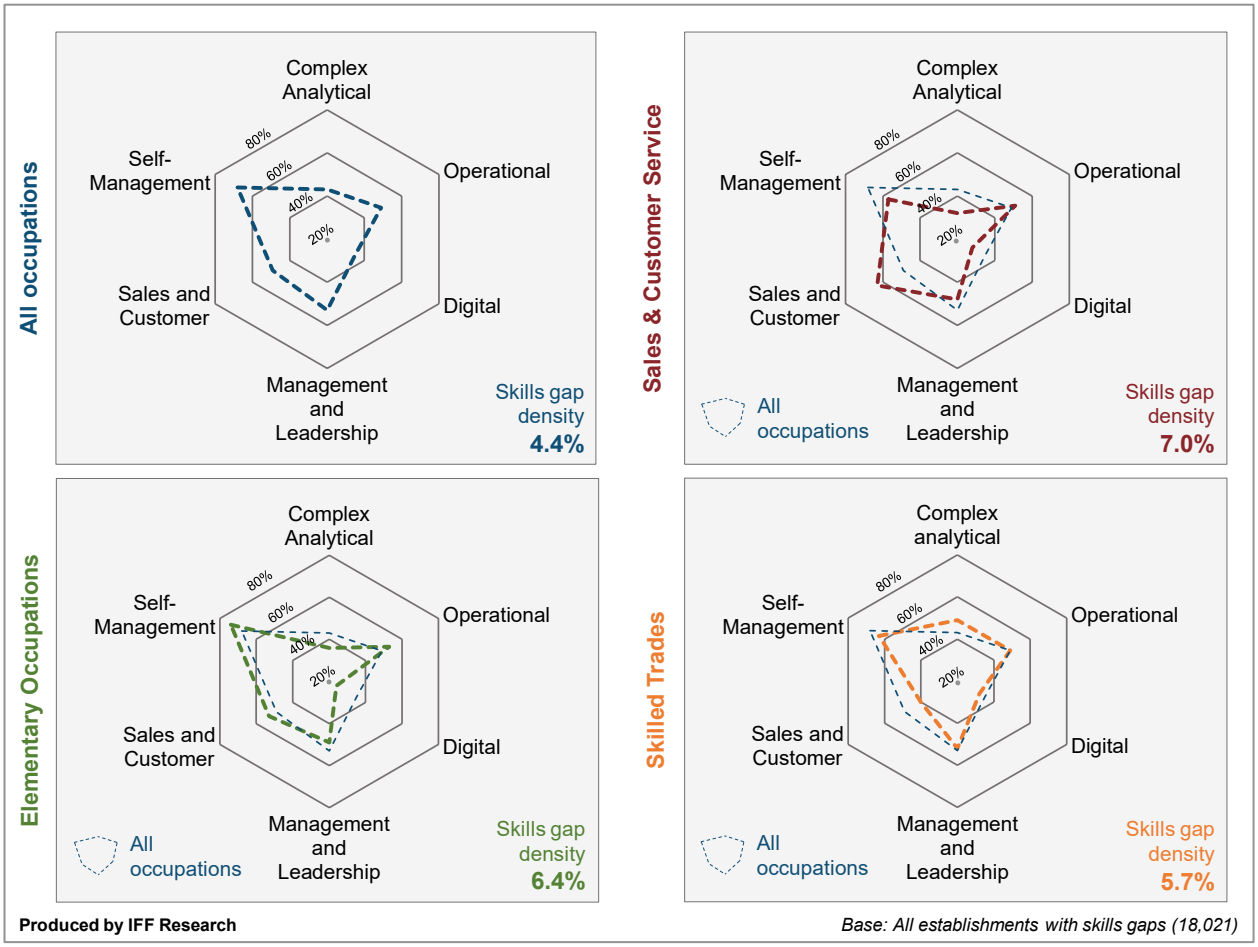


In the Manufacturing sector, nearly four in ten skills gaps (39%) could be attributed to deficiencies in instructing, teaching or training others, higher than the overall average of 28%. Staff in this sector were also more likely than average to be lacking specialist skills or knowledge required to perform their role (56% compared with 47% across all sectors). However, deficiencies in specialist skills or knowledge were most acute in the Health and Social work sector, contributing to more than six in ten skills gaps (62%).

Skills lacking by occupation

Figure 4.8 shows the types of skills lacking among the occupational groups with the highest densities of skills gaps. Predictably, deficiencies in sales and customer skills contributed to the greatest proportion of skills gaps among employees in sales and customer service occupations (63%).

Figure 4.8 Skills lacking in occupations with highest density of skills gaps



As with all occupational groups, self-management skills were the most common type of skill lacking among elementary staff (74%). Skills disproportionately identified as lacking among this group also include: reading and understanding instructions (38%), basic numerical skills (27%), communicating in a foreign language[35] (21%), and manual dexterity (20%).

Employees in high-skill occupations (managers, professionals and associate professionals) were more likely than average to be deficient in management and leadership skills (66% compared with 53% overall). Complex-analytical skills were more commonly identified as areas needing improvement among high-skill and middle-skill[36] occupations (57% and 52% respectively). Digital skills were also more likely to be lacking among staff in high-skill and middle-skill professions (41% and 45% respectively), especially administrative and clerical staff (58%).

[35] When interviewing employers in England, Scotland and Northern Ireland, a foreign language was defined as any language that is not English. For employers in Wales, a foreign language was defined as any language other than English or Welsh.
[36] Middle-skill occupations include Skilled Trades and Administrative or Clerical staff.

Impact of skills gaps

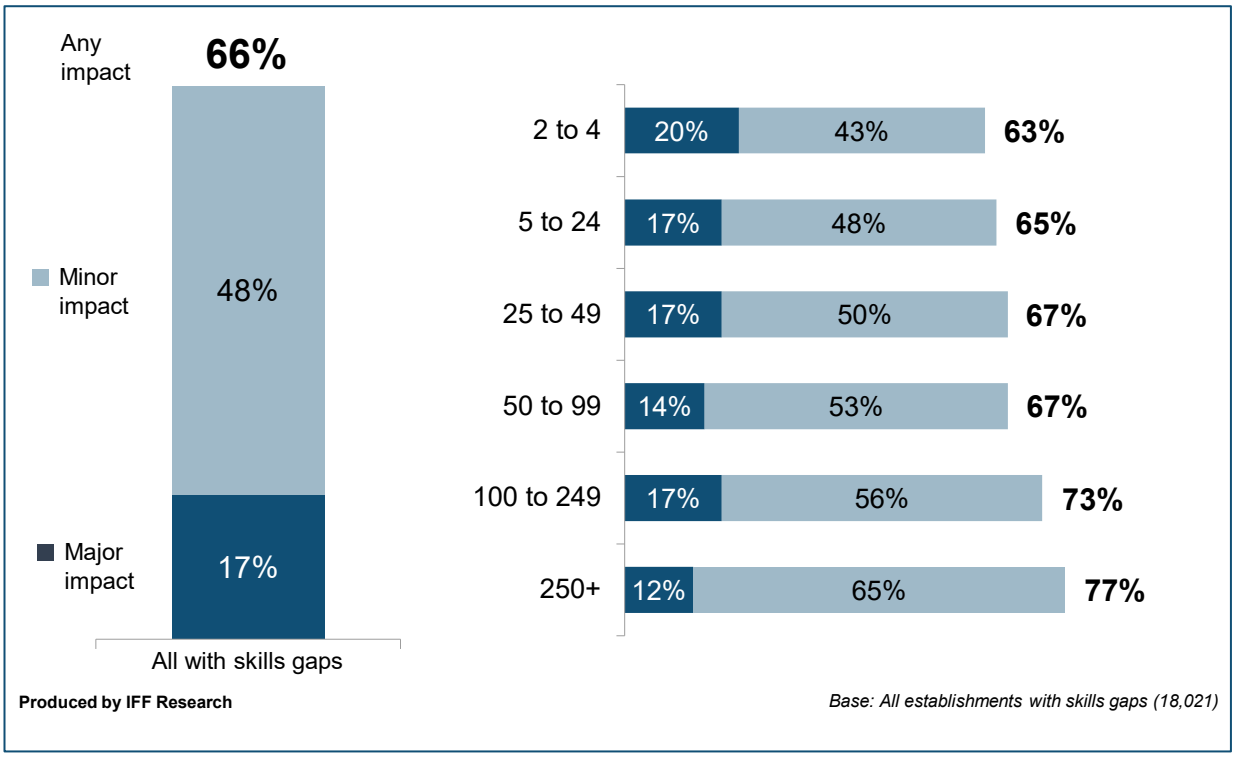
Extent of impact

Two-thirds of establishments with skills gaps (66%) reported these as having an impact on their organisation's performance (17% reporting a 'major' impact; see Figure 4.9).While the density of skills gaps in the UK workforce has fallen from 2015 to 2017, of establishments with skills gaps, the proportions reporting an impact on their establishment's performance were unchanged from 2015.

Larger establishments were more likely to say their skills gaps had an impact on their performance, but small businesses were more likely to report *major* impacts. There were no significant differences between nations in the proportions of establishments reporting that skills gaps had either a major impact on performance or any impact at all.

By sector, establishments in Hotels and Restaurants, which had the highest density of skills gaps of all sectors, were more likely than average to report major impacts of skills gaps (21%). Furthermore, sectors where skills gaps were less likely to be caused by transient factors were also more likely to consider the impact of skills gaps on their business performance to be 'major' (Transport and Storage: 22%, Primary and Utilities: 21%).

Figure 4.9 Impacts of skills gaps by establishment size



Other subgroups more likely to report that their skills gaps had a major impact on the performance of their establishment include:

- Establishments with hard to fill vacancies (28%) or skill-shortage vacancies (29%)

- Establishments whose skills gaps were caused by non-transient factors (21%).

Table A.4.8 in Appendix A provides a breakdown of the extent of impact of skills gaps by country, size and sector.

The specific impacts of skills gaps

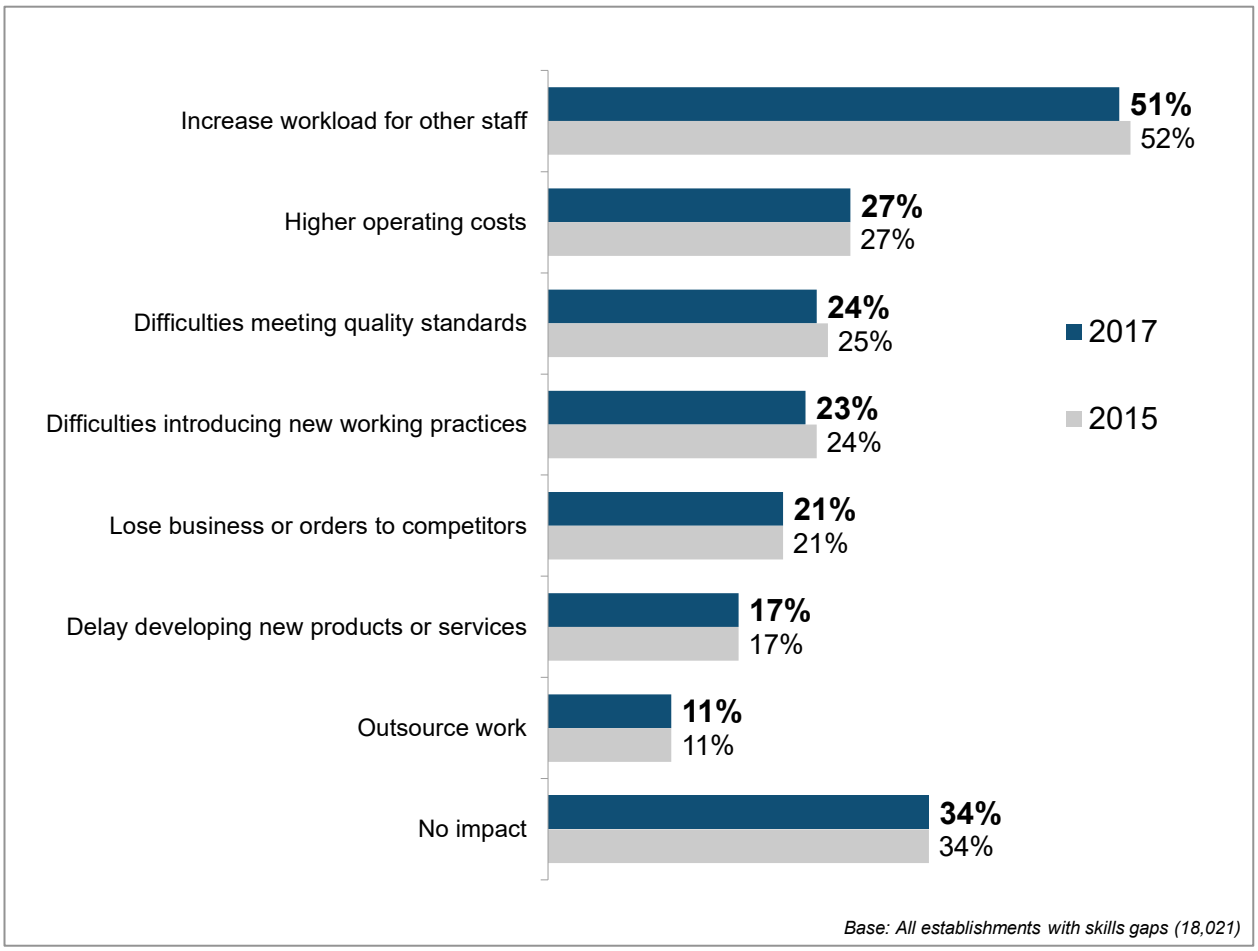
Figure 4.10 shows the specific implications of skills gaps for the businesses who reported them. Results are very similar to 2015, within one percentage point for each impact. The most common impact mentioned was an increased workload for other staff (51%).

It was also common for establishments to report financial challenges as a result of staff not being fully proficient. More than a quarter of establishments with skills gaps (27%) said that their operating costs had been driven up as a result. This was particularly prevalent in the Primary and Utilities sector (39%) and Manufacturing sector (38%). Furthermore, one-fifth of establishments with skills gaps (21%) had lost business or orders to competitors.

As discussed earlier in this chapter, some skills gaps were caused as by-products of innovation and positive transformational working practices. However, some employers with skills gaps also reported that their internal skills challenge hindered their organisation's ability to innovate and introduce long-term business changes. One quarter of establishments with skills gaps (23%) had difficulty introducing new working practices as a result of skills gaps and one in six (17%) had experienced delays in developing new products or services.

Difficulties meeting quality standards was another common impact, affecting a quarter (24%) of those with skills gaps, rising to over one-third (36%) in the Hotels and Restaurants sector.

Figure 4.10 Impacts of skills gaps (prompted)



At a national level, employers in England were less likely to experience higher operating costs as a result of skills gaps than in the Devolved Administrations (26% compared with 31% in Northern Ireland and 30% in Scotland and Wales). Similarly, a smaller proportion of English employers had difficulties introducing new working practices due to these skills gaps than in other nations (22% compared with 26% in Wales and 28% in Scotland and Northern Ireland).

The nature of the impacts felt by establishments with skills gaps also varied by employer. As already discussed, though smaller businesses were less likely to report that skills gaps had any impact at all, they were more likely to consider these to be *major* impacts. Specifically, a greater proportion of establishments with 2 to 4 employees had lost business orders to competitors (22%) and/or suffered delays in developing new products or services (19%).

Table A.4.9 in Appendix A provides a breakdown of implications of skills gaps by country, size and sector.

Employer response to skills gaps

The vast majority of establishments with skills gaps (85%) had taken steps to improve the proficiency or skills of their staff. A further 5% had not taken steps at the time but planned to do so in future. Around one in ten of establishments with skills gaps had taken no action and had

no plans in place to tackle these issues (9%). All of these proportions are unchanged from 2015.

Among those with skills gaps, the smallest establishments with 2-4 staff were the least willing or able to have taken steps to improve the proficiency of these staff (79%), and as many as 14% had no plans to take any steps in the future.

Public sector and third sector establishments who reported skills gaps were more likely to have responded to these issues (91% and 90% respectively) than establishments in the private sector (85%), with the proportion particularly high within Education and Health and Social Work (93% and 92% respectively).

Among the three sectors noted in the previous section that were more likely than average to report skills gaps having a major impact on their business' performance, the response to their skills gaps was varied:

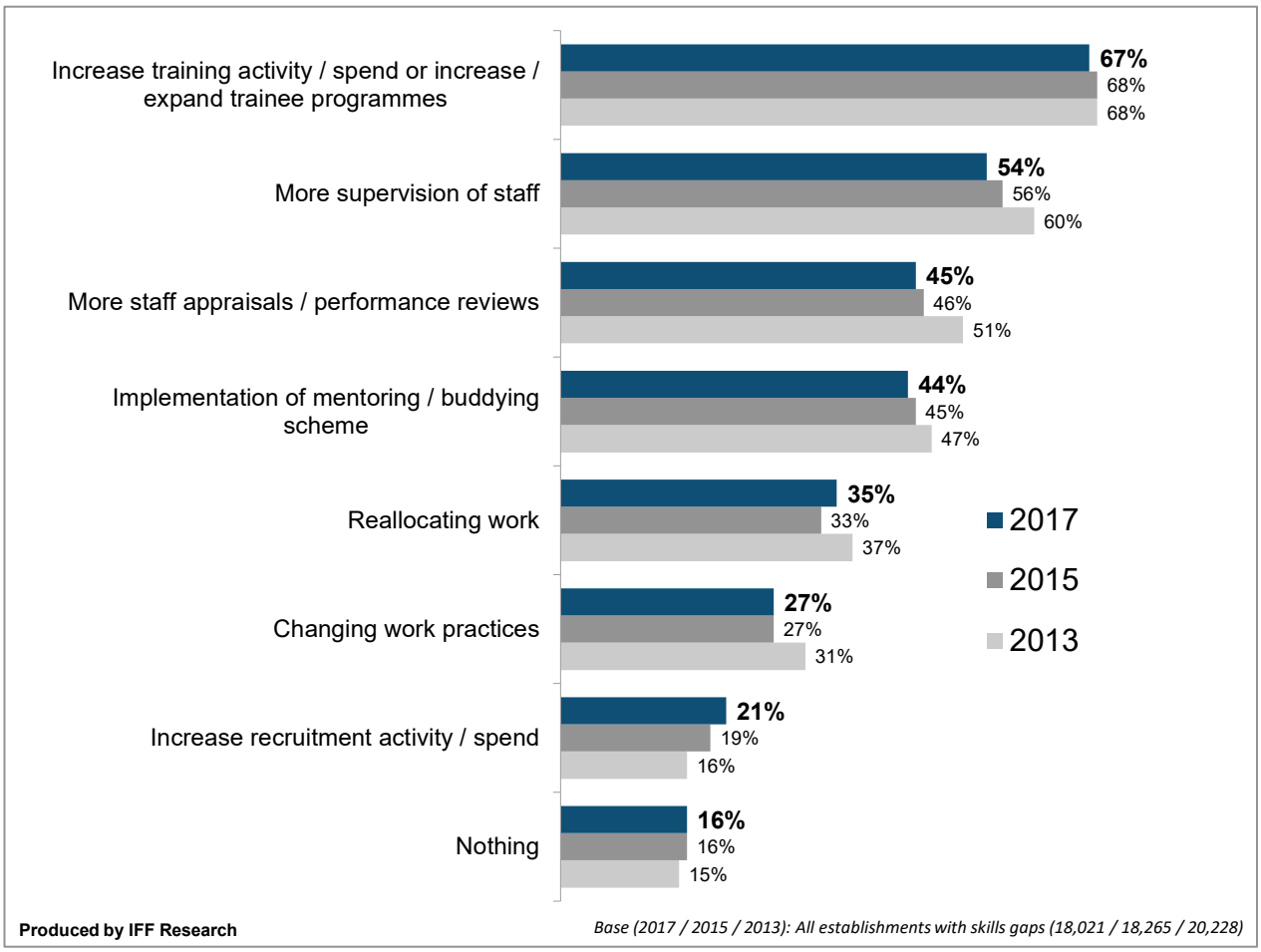
- Establishments in the Hotels and Restaurants were among the most likely to have taken steps in response (89%)
- However, the Primary and Utilities sector were the least likely of all sectors (74%) to have taken steps to respond to their skills gaps. Almost one in five establishments with skills gaps in this sector (19%) had no plans to tackle these issues in the future
- Establishments in the Transport and Storage sector were less likely than average to have taken steps to respond to the issue of skills gaps (81%) but were more likely to have plans to tackle these skills deficiencies in the future (9%): the proportion taking no action or with no plans to in this sector was in line with the all-sector average (9%).

Taking action to address skills gaps was more common among employers with solely transient skills gaps (89%), compared with employers whose skills gaps were more persistent (84%).

Actions taken to overcome skills gaps

In terms of the specific actions taken by employers to tackle their skills gaps, two-thirds of establishments (67%) had increased either training activity or spending on training programmes, as shown in Figure 4.11.

Figure 4.11 Actions taken to overcome skills gaps (prompted)



As in 2015, it was also common to utilise the expertise of existing staff to improve skills of staff lacking proficiency. Examples of these sort of activities include: more supervision of staff (54%), more staff appraisals or performance reviews (45%), and implementation of a mentoring or buddying scheme (44%). There was a slight increase compared with 2015 in the proportion of employers with skills gaps who responded to these issues by increasing recruitment activity or spending (from 19% in 2015 to 21% in 2017). Although reasonably common, the proportion of employers using more supervision of staff and more staff appraisals/performance reviews to tackle skills gaps were both 6% lower than in 2013.

In addition to being asked about a general increase in recruitment activity or spending, employers were asked specifically whether they had recruited, or tried to recruit, non-UK nationals in order to overcome skills gaps. One-sixth of those with skills gaps (15%) reported that they had. This proportion was greater in the Hotels and Restaurants sector (29%), as well as among establishments with more than 25 staff (22% compared with 7% of those with 2 to 4 staff).

Table A.4.10 in Appendix A provides a breakdown of actions taken to tackle skills gaps by country, size and sector.

Recruitment of EU nationals in response to skills gaps

Around one in seven of those with skill gaps (15%) had sought to recruit non-UK nationals (see Figure 4.12). The vast majority of these employers had sought recruits from the EU (92%, equivalent to 14% of all those with skill gaps), whether exclusively from the EU (41%) or also from further afield (50%). Attempting to recruit EU nationals was a particularly common response to skills gaps in the Hotels and Restaurants sector (27%, see Figure 4.13), as well as among employers with more than 25 staff (21%) and employers in London (24%).

Figure 4.12 Proportion of employers with skill gaps responding to these by trying to recruit non-UK nationals

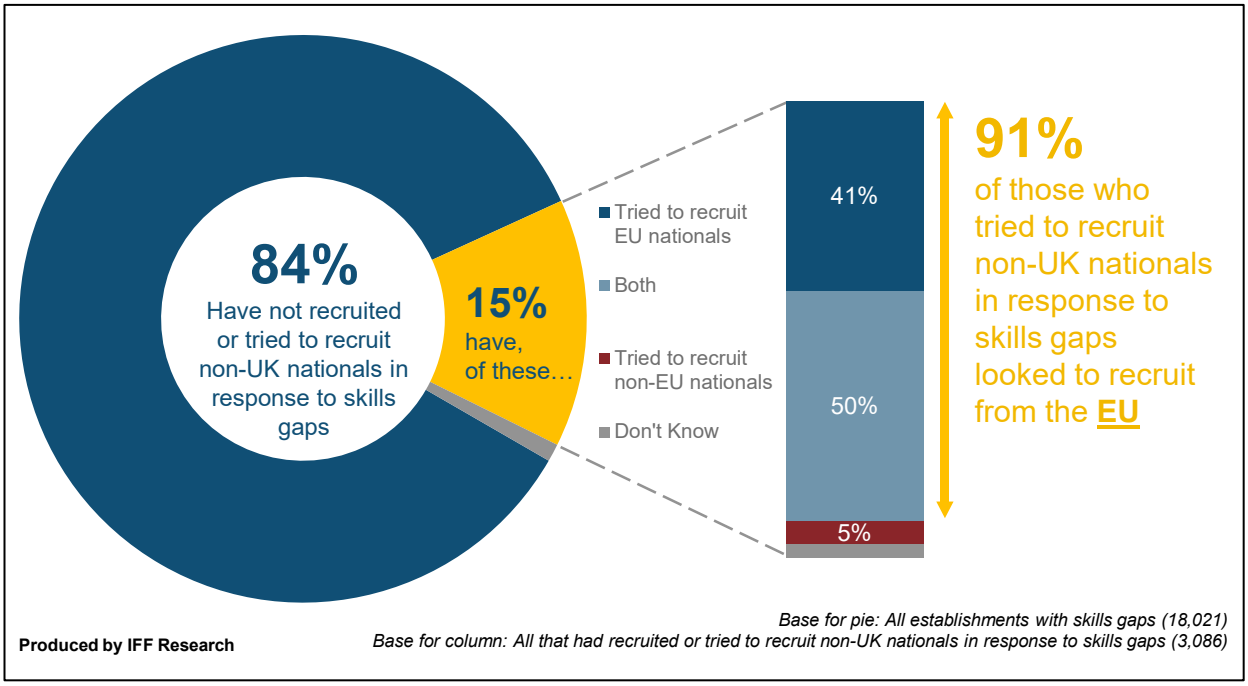
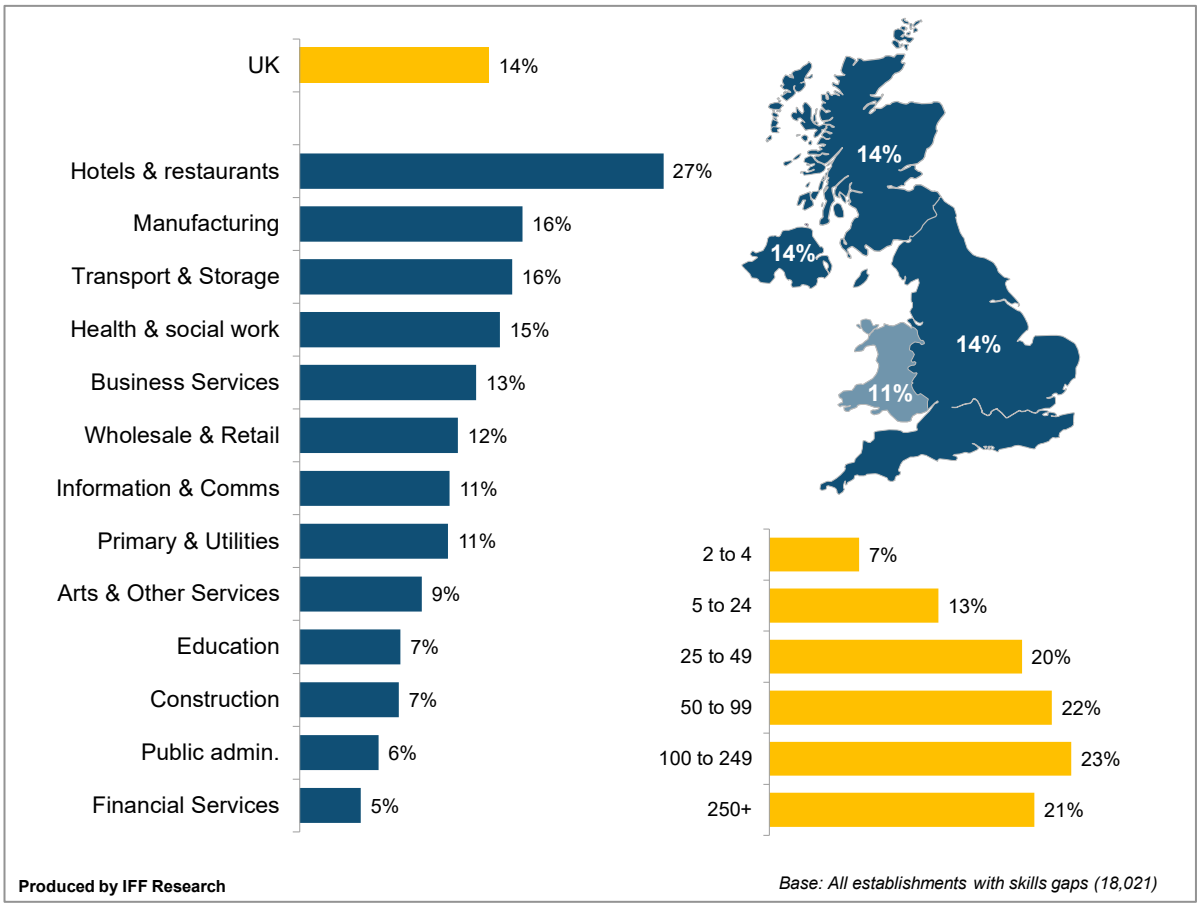


Figure 4.13 Proportion of employers with skills gaps responding to these by recruiting EU nationals, by nation, sector and size



Upskilling

Having considered skills gaps, this chapter now turns to 'upskilling' where employers anticipate that staff will need to acquire *new* skills over the next twelve months.

The questions regarding upskilling are asked in alternate iterations of ESS, therefore the time series comparison commentary in this section of the report relates to 2013 data. The questions are asked on a modular basis, meaning around half of survey participants are asked the upskilling questions covering whether over the next 12 months their employees will need to develop new skills or knowledge for reasons such as the introduction of new working practices or legislation, or (introduced for the 2017 survey) the UK's decision to leave the EU.

The prevalence of upskilling needs

Across the UK, six in ten employers (63%) expect that at least some of their staff will need to acquire new skills or knowledge over the next twelve months. Significantly fewer employers reported a need for upskilling than in 2013 (72%). By nation, employers in Scotland were more likely than average to report a need for upskilling (69%), compared to 62% to 63% in the other nations. The decrease in the proportion reporting the need for upskilling since 2013 had

occurred across all four nations; in 2013 70% of employers in England, 72% in Northern Ireland, 74% in Scotland and 72% in Wales reported a need for upskilling.

The larger the establishment the more likely they were to anticipate an upskilling need over the next 12 months, rising from 57% of smaller establishments with 2 to 4 employees to 82% of those with at least 250 employees. This follows the same pattern as in 2013, as shown in Figure 4.14.

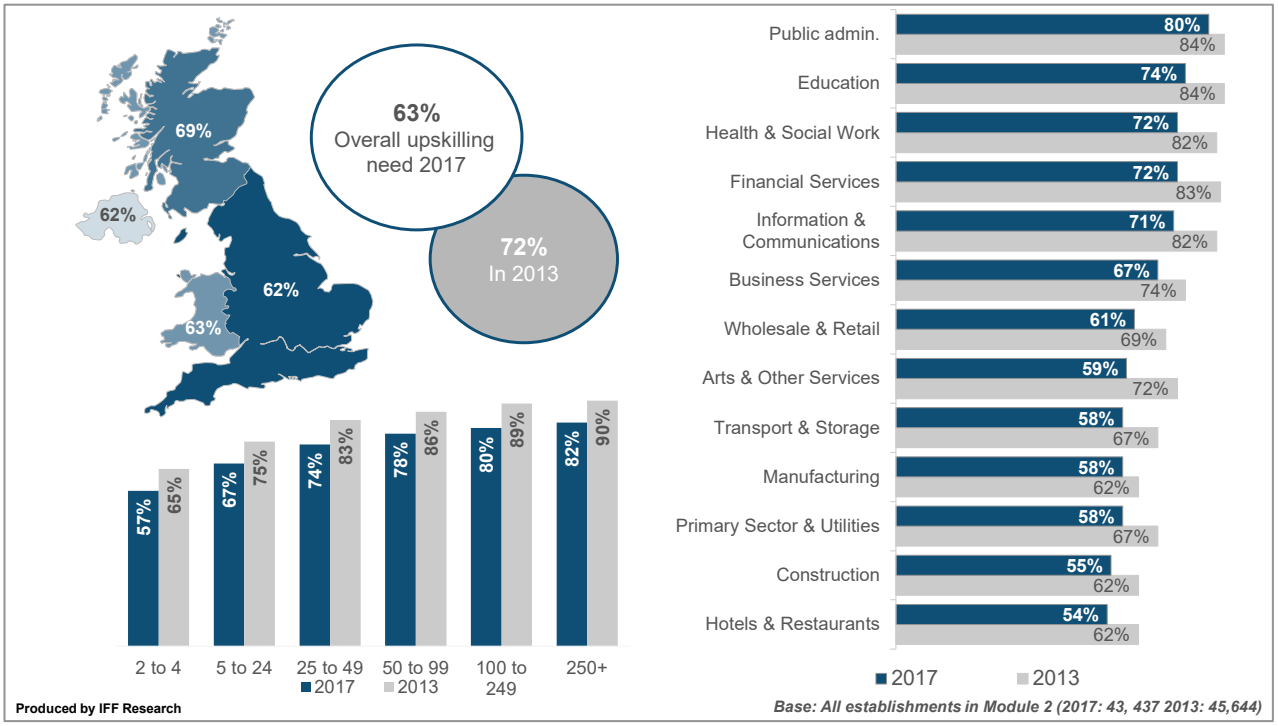
Figure 4.14 also shows that the proportion reporting a need for upskilling has consistently dropped across all sectors since 2013. Employers in Public Administration remained the most likely to report a need for upskilling and had the smallest decrease to 80% from 84% in 2013. All other sectors saw larger decreases in the proportion reporting an upskilling need since 2013.[37]

There was no simple relationship between the likelihood of a sector reporting skills gaps and the perceived need for upskilling. Hotels and Restaurants employers had the highest density of skills gaps but were least likely to identify a need for upskilling (54%) and were most likely to overcome skills gaps through means such as recruiting non-UK nationals. Conversely, Public Administration had the lowest density of skills gaps, but these employers were the most likely to identify a need for upskilling (80%), suggesting a difference in attitude to skills needs within this sector in their likelihood to see room for improvement despite proficiency.

Those employers that have skills gaps are more likely than average to report that some of their staff will need to acquire new skills or knowledge over the coming year (77%), although three fifths (61%) of those where all of their staff are fully proficient still anticipate a need for upskilling of staff in the next 12 months, indicating a need for skills development continuing.

[37] This data is also provided in Table A.4.11 in Appendix A.

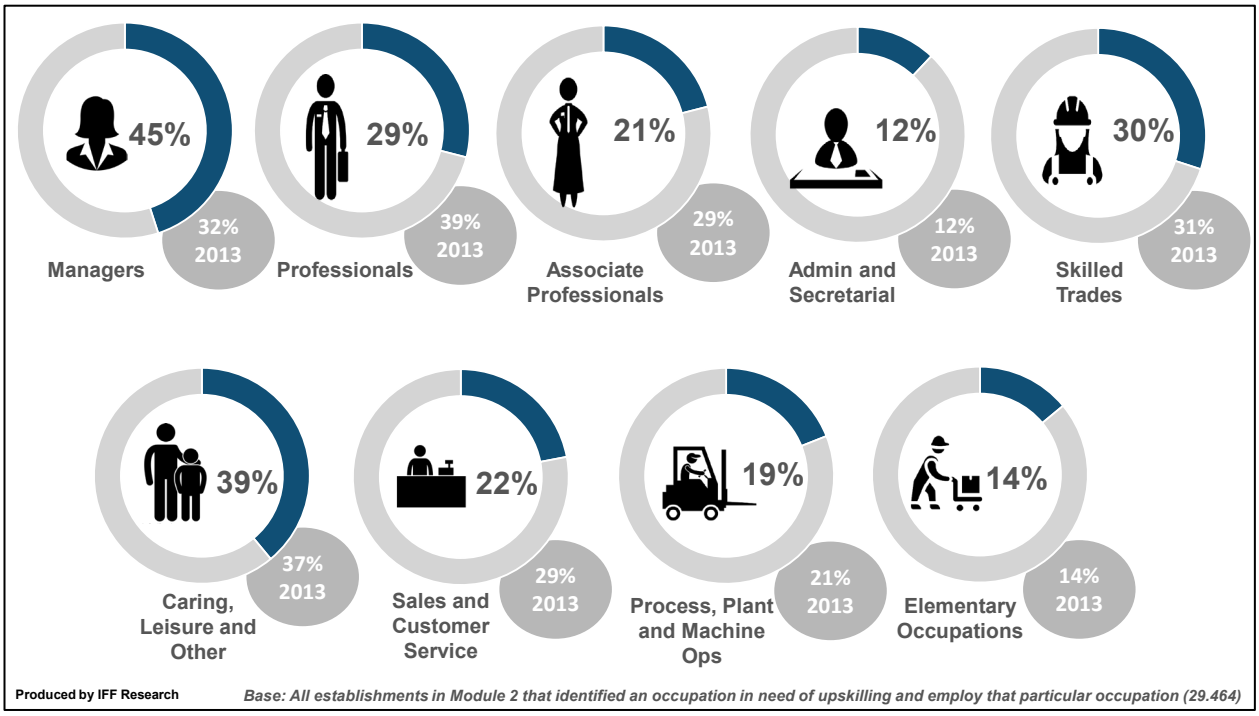
Figure 4.14 Need for upskilling, by country, size and sector



Occupations most affected by the need for upskilling

Employers anticipating the need for staff to acquire new skills or knowledge were asked which single occupation would be most affected. As shown in Figure 4.15, 45% of employers employing any Managers anticipate this occupation being the priority, an increase of 13 percentage points since 2013. Four in ten (39%) establishments that employ Caring, Leisure and Other services staff anticipate these staff being the priority (a much smaller increase of two percentage points since 2013). In contrast, there has been a decrease in the proportion reporting that Professionals they employ would be most affected, from 40% in 2013 to 29% in 2017. There were also decreases in those reporting that Associate Professionals (21% compared to 29% in 2013) and Sales occupations (22% compared to 29% in 2013) would be most affected. The results in other occupations remain similar to 2013.

Figure 4.15 Single occupation most affected by a need for upskilling



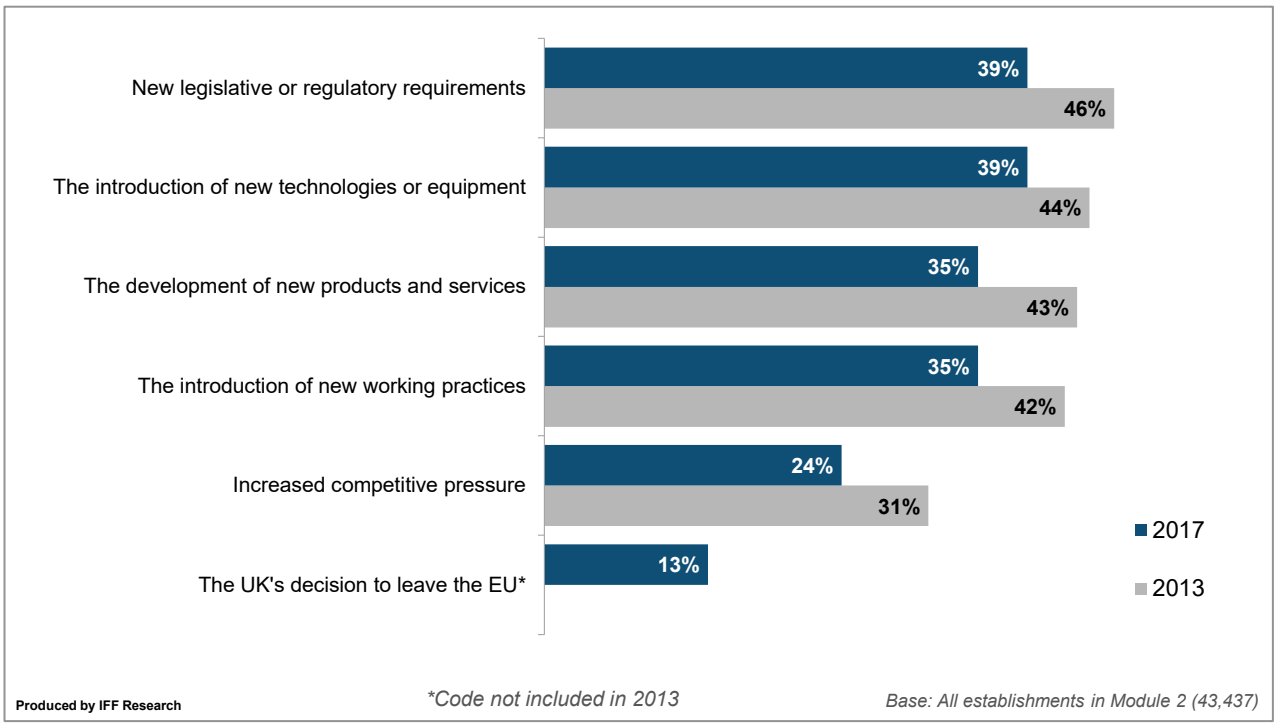
Reasons for a need for upskilling

Overall, the reasons explaining the need for upskilling followed a similar hierarchy to 2013, though the proportion of employers mentioning each reason was lower in 2017 than 2013 (see Figure 4.16).

Two-fifths (39%) of employers reported that the need for upskilling was due to new legislative or regulatory requirements, the same proportion mentioned the introduction of new technologies or equipment, whilst one-third (35%) reported both the development of new products and services and the introduction of new working practices as reasons. A quarter (24%) said that increased competitive pressure was a reason.

Around one in eight (13%) said that the UK's decision to leave the EU was a reason for the need for upskilling, though only 1% said that this was the *only* reason. The UK's decision to leave the EU was more likely than the UK average to be mentioned by employers in Northern Ireland (17%), Scotland (17%), and regionally by those in London (16%), as well as by Financial Services and Public Administration employers (both 18%) and Primary Sector and Utilities and Transport and Storage employers (both 16%). Employers who had skills gaps were significantly more likely to report all of these as reasons for needing to upskill.

Figure 4.16 Reasons for a need for upskilling (prompted)



As detailed in Table 4.2, there were some notable differences in the reasons given for upskilling by nation. Employers in Scotland and Wales were more likely than average to mention new products and services, new working practices, new technologies, and new legislative and regulatory requirements. Additionally, employers in Northern Ireland and Scotland were more likely than average to mention the UK's decision to leave the EU (both 17%). Employers in Scotland were more likely to mention all of the reasons given for upskilling, roughly three to four percentage points above the UK-wide figure.

Table 4.2 Reasons for a need for upskilling, by nation (prompted)

	2013					2017				
	UK %	EN %	NI %	SC %	WL %	UK %	EN %	NI %	SC %	WL %
New legislative or regulatory requirements	46	45	47	51	51	39	38	39	42	41
The introduction of new technologies or equipment	44	44	47	46	46	39	38	39	41	42
The development of new products and services	43	43	40	44	45	35	35	32	39	37
The introduction of new working practices	42	42	43	45	45	35	35	36	39	39
Increased competitive pressure	31	31	32	30	31	24	24	25	25	23
The UK's decision to leave the EU	*	*	*	*	*	13	13	17	17	11

*Code not included in 2013

Base: All establishments in Module 2 (43,437)

Tables A.4.12 and A.4.13 provide a breakdown on reasons for a need for upskilling, by country, size and sector.

Upskilling: skills that need improving

Those employers that identified an occupation most affected by the need for upskilling were asked which skills require developing among their staff. Again, these have been grouped into two categories:

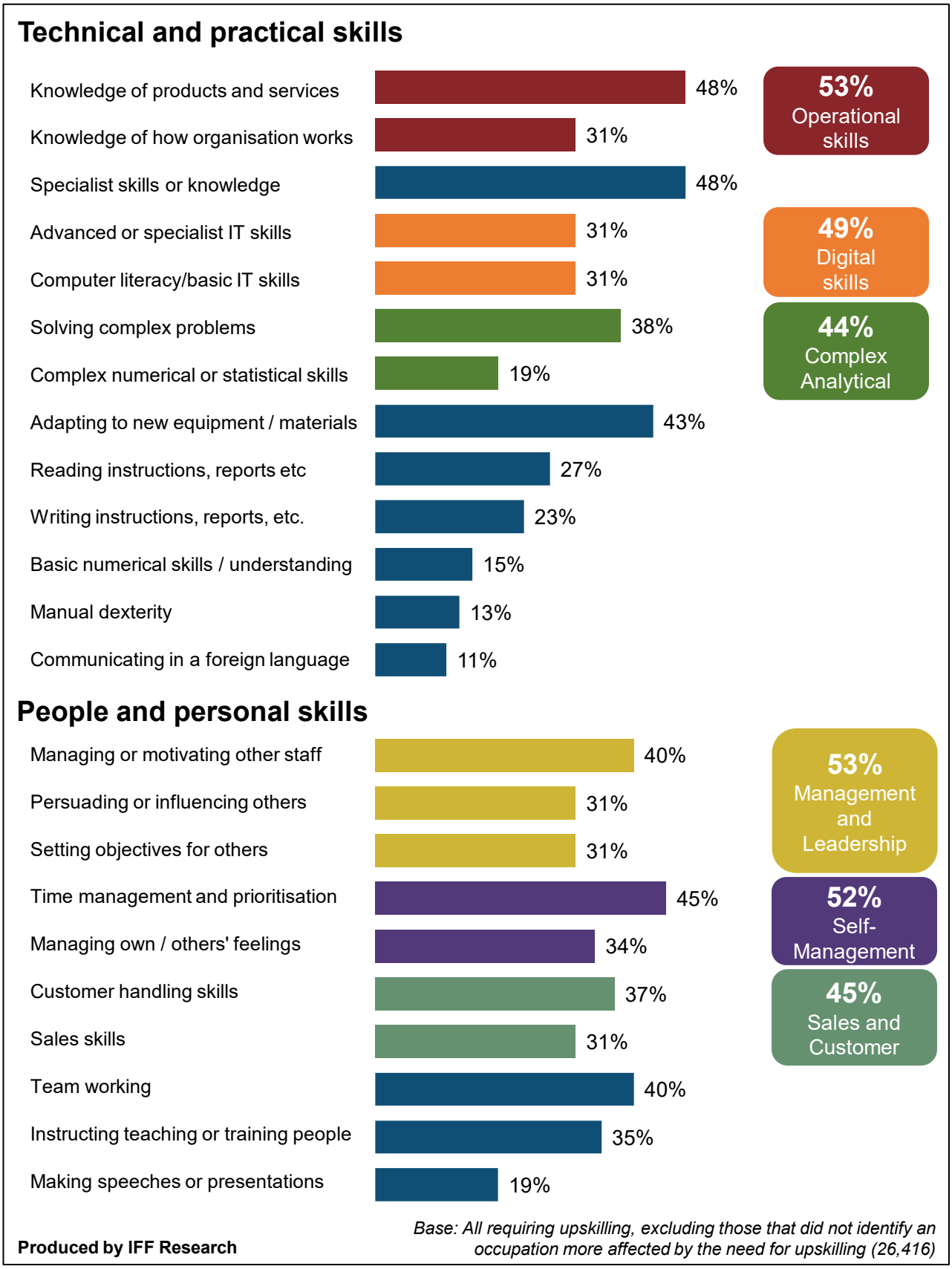
- **Technical and practical skills** – these are the specific skills required to perform the specific functions of a job role, for example advanced or specialist IT skills.
- **People and personal skills** – these are the softer, less tangible skills required for self-management, leadership and interaction in the workplace, for example persuading or influencing others.

A summary of these skills is shown in Figure 4.17.

Technical and practical skills

The most common technical and practical skills that employers felt needed developing were knowledge of products and services (48%), specialist skills or knowledge (48%) and adapting to new equipment or materials (43%). When grouping these skills by area; more than half (53%) cited operational skills such as knowledge of how the organisation works, around half (49%) cited digital skills (at advanced and/or basic level) and over two-fifths (44%) mentioned complex analytical skills such as complex numerical or statistical skills.

Figure 4.17 Skills that need developing among staff requiring upskilling (prompted)



By sector, Information and Communications employers were significantly more likely than other employers to mention digital skills (67%), as were those in the Education sector (56%).

Financial Services employers were more likely than anyone to mention Operational Skills (66%) than average, as were Wholesale and Retail (63%) and Hotels and Restaurants (63%).

People and personal skills

With regard to people and personal skills, the most common upskilling needs in this area were ability to manage own time and prioritise their own tasks (45%), managing or motivating other staff and team working (both 40%).

When specific people skills required are grouped, over half (53%) cited management and leadership skills, a similar proportion (52%) mentioned self-management skills and over two-fifths (45%) had sales and customer upskilling needs.

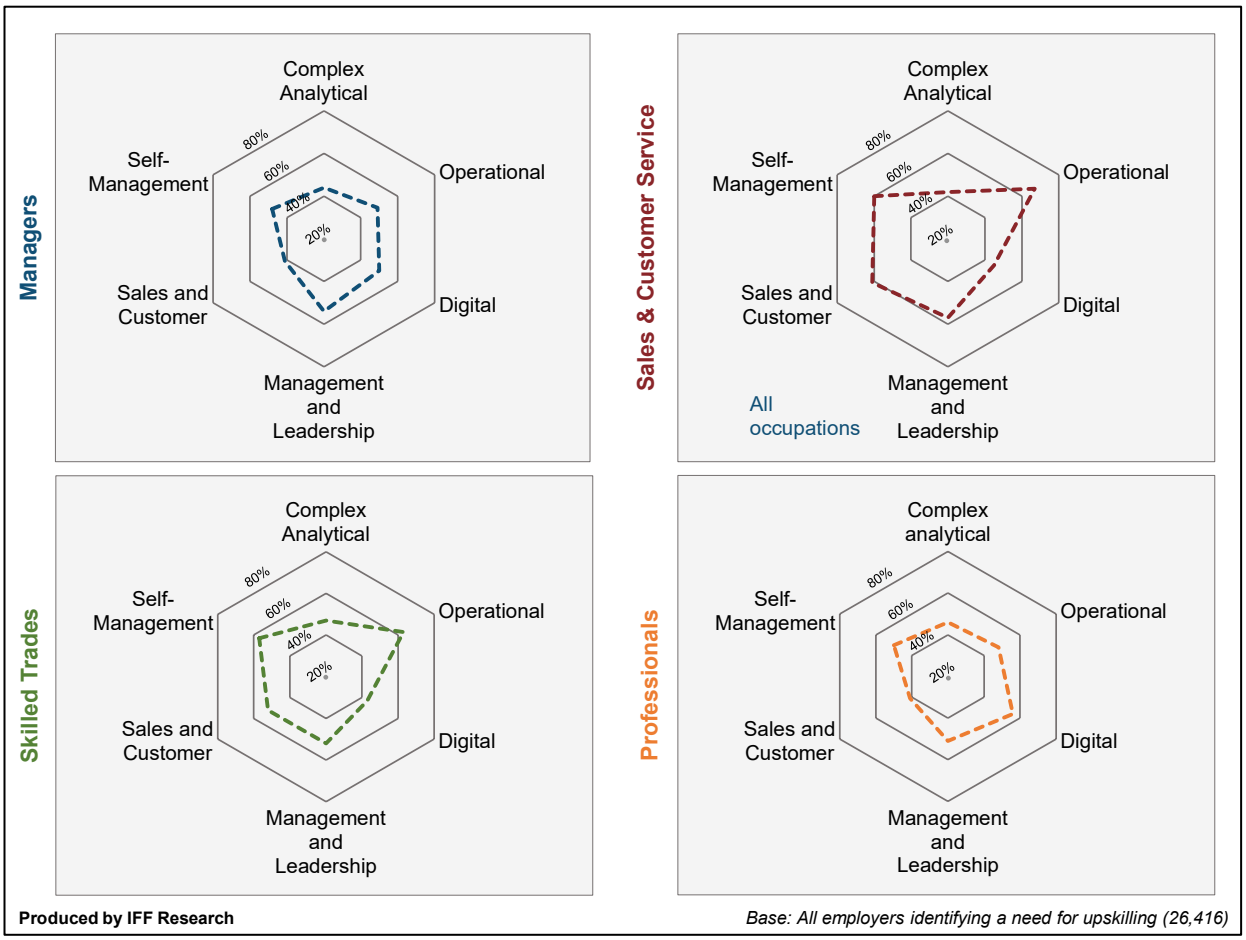
Employers who reported skills gaps among their workforce were more likely to have upskilling needs across any of these types of skills in the next 12 months; of those with skills gaps:

- 60% cited management and leadership skills compared to 52%
- 64% self-management skills, compared to 50%
- 51% sales and customer skills as upskilling needs, compared to 43%,

Employers in Wholesale and Retail, as well as in Hotels and Restaurants, were more likely than average to mention a need to upskill in Management and Leadership skills (57% and 64% respectively), Sales and Customer skills (54% and 59% respectively) and Self-Management skills (56% and 63% respectively).

In Figure 4.18, the broad groupings of skills that need developing have been broken down by the occupations employers consider most in need of upskilling. This shows the variation in the combination of different skills required in the future by occupation. In particular the chart shows that Managers and Professionals are more likely to need to develop Digital Skills. Sales and Customer Service and Skilled Trades employees are more likely to need to develop Operational Skills, as well as Self-Management Skills.

Figure 4.18 Skills that need developing among occupations most in need of upskilling



Under-use of skills

The proportion of graduates working in low-skilled jobs has increased over the last decade since the financial crisis.[38] In addition to *shortages* of skills in the labour market, ESS also provides insight into skills *imbalances* that occur when the skills and qualifications held by employees are not utilised optimally within the labour market. In ESS 2017, under-use of skills was measured by asking employers how many staff, if any, had both qualifications *and* skills more advanced than required for their current job role. Again, as with skill gaps, it is worth bearing in mind that the survey can only capture what employers are aware of and report.

The prevalence of under-use of skills

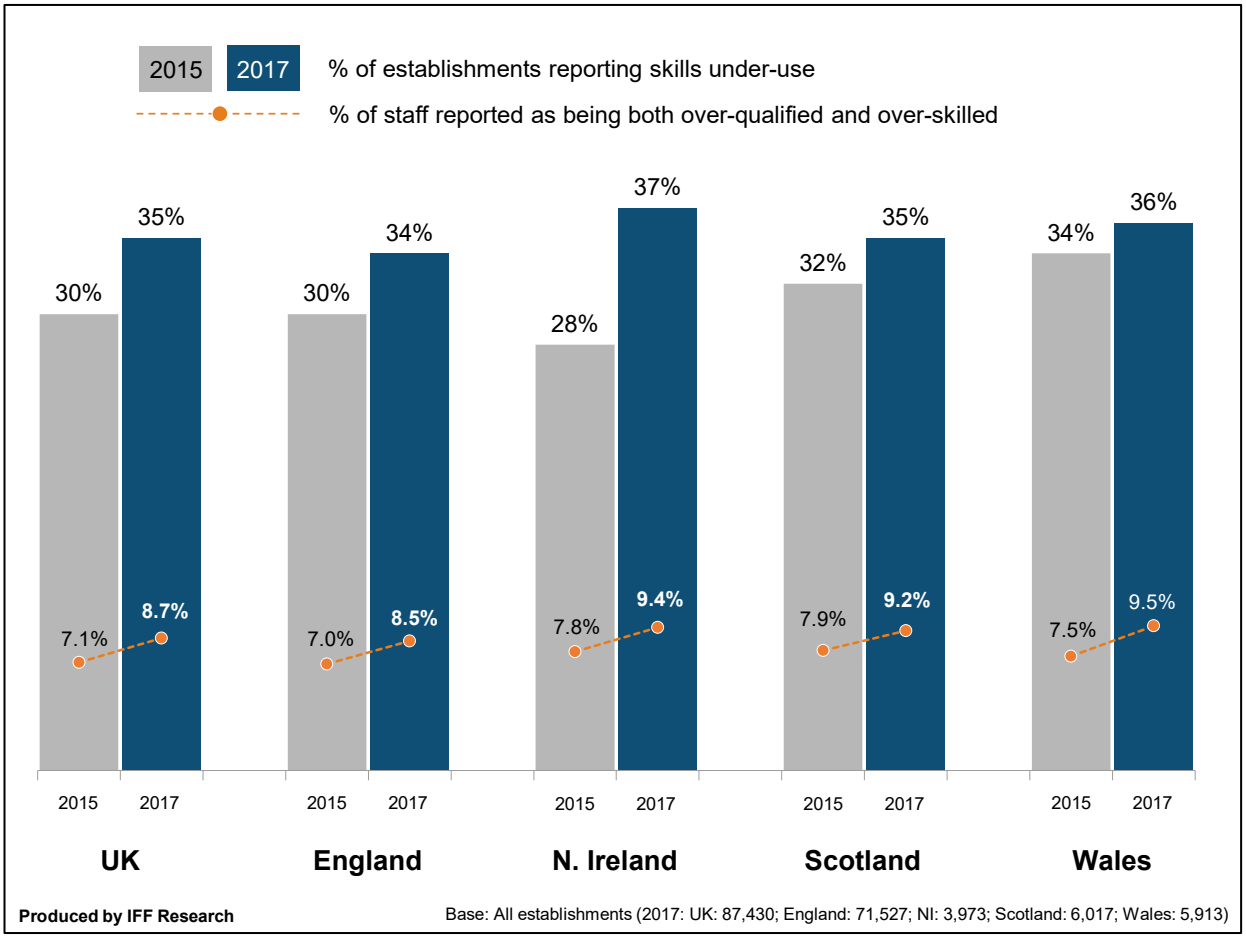
Across the UK, just over one-third of all establishments (35%) reported that at least one employee had both qualifications and skills more advanced than required for their current job role. In volume terms, 2.5 million workers, or 8.7% of the workforce, have under-utilised skills.

[38] Good Work: The Taylor Review of Modern Working Practices (2017)

That is to say, the under-use of skills affects a considerably larger proportion of employers and of the workforce than skills deficiencies do.

As illustrated in Figure 4.19, incidence and density of under-utilised staff have risen at the UK level since 2015 when three in ten establishments reported skills under-use (30%) and there were 2.0 million workers with both qualifications and skills at a more advanced level than required for their job role (7.1% of the workforce).

Figure 4.19 Incidence and density of staff who are both over-qualified and over-skilled by country



This increase from 2015 to 2017 in the proportion of establishments reporting skills under-use was most dramatic in Northern Ireland (28% to 37%). The proportion of the workforce with under-utilised skills in England (8.5%) was lower than in each of the devolved administrations (9.4% in Northern Ireland, 9.2% in Scotland, and 9.5% in Wales), though in all nations the 2017 figure was higher than 2015.

As in 2015, the proportion of staff under-utilised is considerably higher among establishments with 2 to 4 employees, where 20% of staff are considered both over-skilled and over-qualified. This proportion falls to 11% among establishments with 5 to 24 employees and 6% for those with 25 or more employees. Fewer formal opportunities for career progression in smaller

establishments, as well as the more ‘hands-on’ roles that senior staff often take on in small businesses may contribute to this variation by establishment size.

At a sectoral level, as in 2015, density of skills under-use was greatest in the Hotels and Restaurants (16%) and Arts and Other Services (13%) sectors. These sectors are typically characterised by large numbers of highly-qualified graduates working in roles with lower skills requirements.

Chapter conclusions

The proportion of the UK workforce who lack full proficiency in their job role has continued on the downward trend seen since 2011, while the proportion of the workforce who have under-used skills and qualifications has increased.

Skill shortages and imbalances in the labour market can manifest themselves in different ways across different occupations and sectors of the economy. In some areas, such as the Construction sector and among Professional staff, high densities of skill-shortage vacancies in the external labour market are somewhat countered by low proportions of skills gaps among existing staff. Likewise, while internal skills deficiencies are most common in the Hotels and Restaurants sector and among Sales and Customers Service staff, these are areas of the economy where skills-related recruitment difficulties have remained low over time.

That said, internal skills deficiencies in Skilled Trades and among Machine Operatives are above the average of all occupational groups. Externally, these occupations also have the highest densities of skill-shortage vacancies, suggesting that skill-shortage issues are more pervasive across the labour market for these occupations.

Differences between sectors of the economy are also seen in the relationship between skills gaps, skills under-use and anticipated need for future upskilling. The Hotels and Restaurants sector, for instance, has the highest proportion of the workforce lacking skills but also the highest density of skills under-use suggesting the deployment of skills and qualifications of employees in this sector is particularly imbalanced. Despite having a high density of skills gaps, anticipated need for upskilling in this sector is low as recruitment is a more common response to internal skills deficiencies.

Conversely, Public Administration had one of the lowest proportions of employees reported to lack full proficiency in their role, yet employers in this sector were most likely to identify a need for upskilling of staff over the next 12 months. A similar story can be seen at an occupational level when looking at managers – they were least likely of all occupational groups to lack proficiency but the most likely to be identified as needing upskilling in the future.

Small establishments with 2 to 4 employees had the highest density of skills under-use and the lowest density of skills gaps. That said, in cases where small establishments did have internal skills deficiencies, these were often problematic. The smallest employers were most likely to

report that skills gaps had *major* impacts on their organisation's performance and were least likely to have taken action in response.

Since 2015, there has been a decrease in the proportion of skills gaps caused by non-transient factors, suggesting that internal skills deficiencies are becoming less entrenched. However, within Primary & Utilities and Transport & Storage, both of which have lower-than-average densities of skills gaps, a smaller proportion of skills gaps in these sectors can be explained by transient factors. These sectors were among the most likely to report major impacts on their organisation's performance and were least likely to have taken action in response. As such, internal skills deficiencies in these sectors may be considered particularly problematic in the medium to long term.

Some causes of skills gaps, such as the introduction of new products, services, technology, or working practices, represent a positive tendency for organisations to be investing in future growth. However, there has been a decrease in the proportion of skills gaps caused by these sorts of positive transformational factors.

So far, this report has discussed skills deficiencies and imbalances within organisations and across the wider labour market. The next chapter looks at the related issue of training and workforce development.

5. Training and workforce development

Chapter summary

The previous ESS surveys in 2013 and 2015 painted a consistent picture of employer training activity, and on many training measures there has been no or little change in 2017, with the same proportion of employers providing training, and the same proportion of staff trained over the previous 12 months.

Once again, two-thirds (66%) of employers had provided training for their staff over the past 12 months, with either off-the-job training or on-the-job training provided by around half of all employers in each case (48% and 53%).

The proportion of staff trained over the past 12 months remained consistent with previous years (62%), although general increases in employment meant that the *number* of employees trained rose from 17.4m in 2015 to 17.9m in 2017. The total number of training days decreased from 118m days in 2015 to 114m in 2017. This means that on average each trainee received slightly fewer days training than in 2015 (6.4 days, down from 6.8 days in 2015).

Overall training expenditure has increased in real terms (i.e. taking inflation into account) by 1% since 2015, from £43.6bn to £44.2bn. The 2017 training expenditure is equivalent to £2,470 per person trained per annum, and £1,530 per employee – these figures are a slight decrease from 2015, reflecting the fact that while training expenditure has increased so has the number of staff trained (and the number employed).

There has been a decrease in the proportion of all staff being trained to nationally recognised qualifications in 2017 (11%, down from 12% in 2015), and in the actual number trained to a nationally recognised qualification in the previous 12 months, from 3.5 million in 2015 to 3.2 million in 2017.

The use of online training and e-learning has increased across all countries and sectors, and in 2017 was being used by half of all employers that train (51%, up from 45% in 2015). Annual expenditure on online training and e-learning in the previous 12 months had increased by around two fifths (40%) compared with 2015, though it still accounts for a relatively small proportion of total expenditure (£0.5bn).

Introduction

Training for staff is instrumental in allowing employers to tackle skills shortages and skills gaps within their establishment, and to develop their workforce to increase productivity and expertise.

A significant policy change since the previous ESS in 2015 has been the change in apprenticeship funding, with the introduction in April 2017 of the apprenticeship levy, to be paid by all organisations with a wage bill over £3m. In England a new co-funding model for smaller

organisations, who will now contribute 10% of the cost of their apprentices' training. Over time the government intends this change to, among other things, increase the number of apprenticeship starts. The impacts of these reforms on training *outside* of apprenticeships is also hard to predict, with some anticipating apprenticeship training to substitute other forms of training.

In addition, leaving the EU may require employers to dedicate more to the development and training of staff.

It is against this backdrop that we examine the training landscape in 2017, looking specifically 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[39]
- Reasons for not providing training and barriers to providing more training

It should be noted that many of the training questions asked in ESS 2017 were with reference to 'the last 12 months'. Fieldwork for the survey was May to October 2017. Therefore most of the 'last 12 months' time period occurred before the reforms mentioned above came into effect.

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**: training undertaken at the individual's work position, as long as their activities would be recognised as training by staff, rather than the sort of learning by experience which could take place all the time.

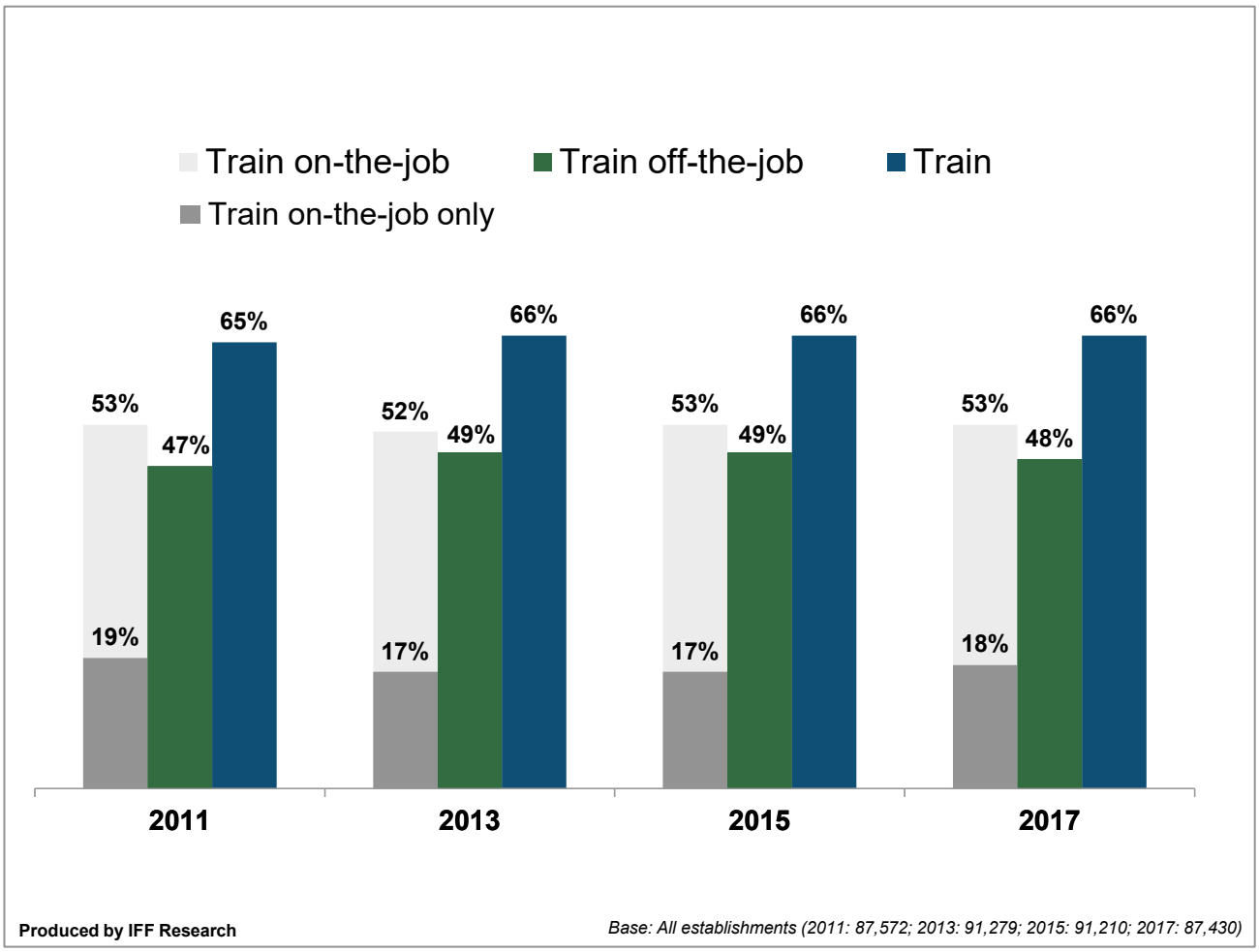
[39] Results for this aspect of the research are derived from the Investment in Training follow-up study with a proportion of the ESS 2017 sample (see the accompanying Technical Report for details of the methodology).

Incidence of training and workforce development

Two-thirds (66%) of employers had provided[40] training over the last 12 months, with around half providing any off-the-job training (48%) and/or on-the-job training (53%). A third of employers (35%) offered both off- and on-the-job training. Around a fifth (18%) of employers offered *only* on-the-job training, and a slightly smaller proportion (13%) had provided only off-the-job training.

As shown in the following chart these figures have changed little since 2013.

Figure 5.1 Training provision 2011 - 2017



As in 2015, a higher proportion of employers in Scotland provided training (71%, compared with between 62% and 66% in other nations).

The incidence of training increased with establishment size, with wide variation from half (53%) among sites with fewer than five staff, up to virtually all (96%) of those with 100 or more staff.

[40] Employers were asked specifically if they had '*arranged or funded*' any training or development for trainees at this site.

Employers in the Primary Sector and Utilities were the least likely to provide any training (53%). Training was more common among employers in Education (91%), Public Administration (90%) and Health and Social Work (87%), reflecting the fact that these are generally much larger employers. Employers in Wholesale and Retail and Hotels and Restaurants, were more likely to have offered *only* on-the-job training (21% and 24%, compared with 18% among all employers).

More data on the incidence of training, and how this varied by country, size and sector, and between 2011 and 2017, can be found in Tables A.5.1 and A.5.2 in Appendix A.

Number of staff trained

In the previous 12 months, employers had trained 17.9m staff; a 3% increase on the 2015 figure of 17.4m. However, due to a corresponding similar sized increase in the overall size of the workforce (4%), the *proportion* of staff trained has remained steady at just over three-fifths of the workforce (62%, compared with 63% in 2015 and 62% in 2013).[41]

The proportion trained has remained consistent in the 2013-2017 period, following a significant increase from 2011 to 2013.

Table 5.1 shows the number and proportion of staff trained UK-wide, and by country and size for 2011 through to 2017.

[41] The figure involves an element of over counting in that employers are asked about the number of staff 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		2017	
	Number trained	% of staff trained	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	17.9m	62
Country								
England	12.3m	54	14.1m	62	14.7m	63	15.2m	62
Northern Ireland	0.4m	56	0.4m	59	0.5m	64	0.4m	60
Scotland	1.4m	58	1.5m	65	1.5m	62	1.5m	62
Wales	0.7m	56	0.7m	62	0.8m	64	0.7m	58
Size								
2-4	1.0m	40	1.0m	41	1.0m	43	1.1m	42
5 to 24	3.4m	53	3.5m	54	3.7m	56	3.8m	56
25-49	2.0m	59	2.1m	63	2.3m	65	2.3m	64
50-99	2.0m	59	2.3m	66	2.3m	66	2.4m	65
100-249	2.4m	60	2.7m	68	2.9m	67	3.1m	70
250+	4.0m	54	5.2m	71	5.2m	70	5.2m	67

Base: All establishments. Base sizes are shown in Table A.1.1 in Appendix 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.

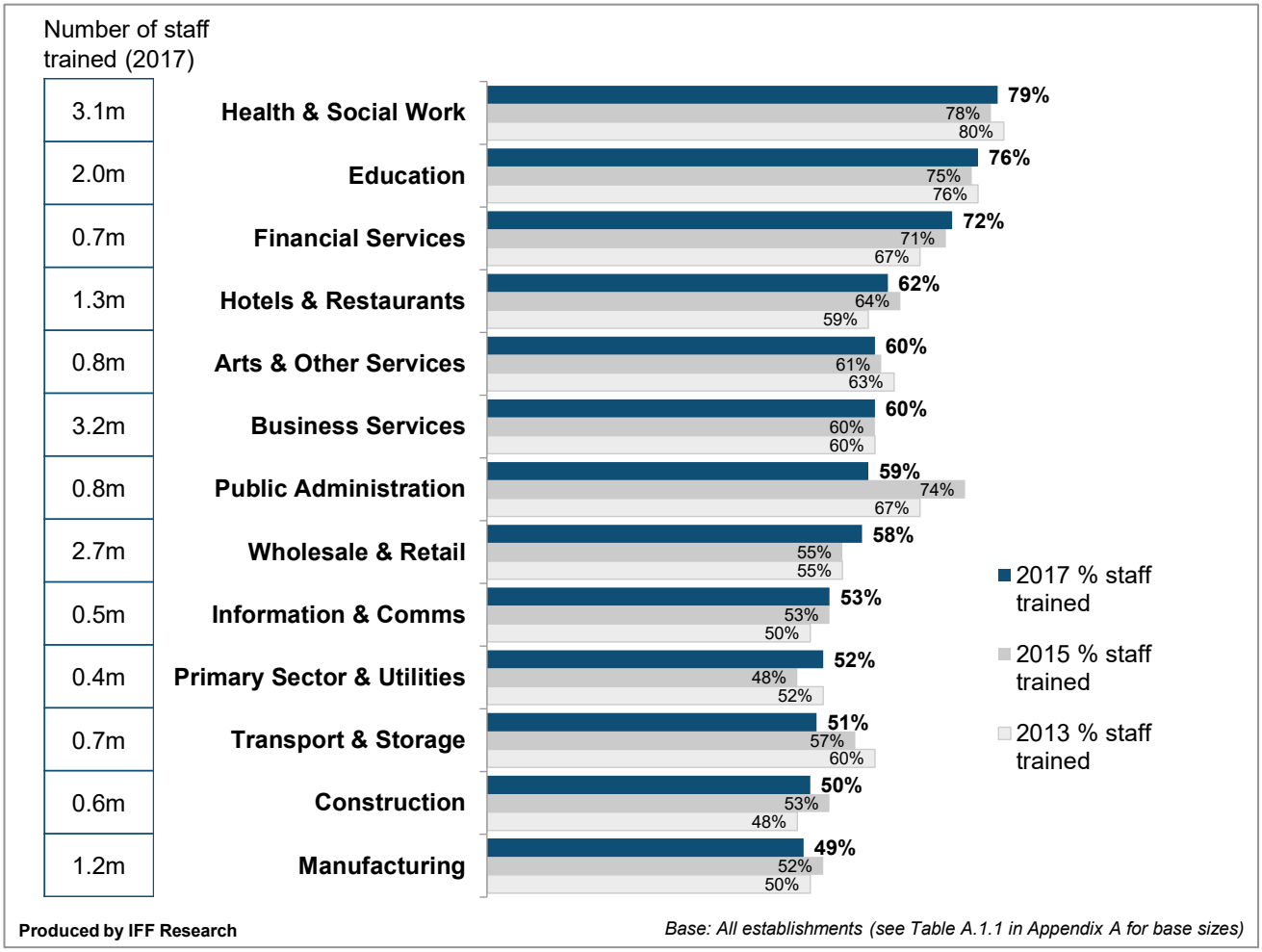
Employers in Wales trained the smallest proportion of their staff (58%), while those in England and Scotland trained the largest proportion (62% each). The proportion of staff trained in Wales has fallen since 2015 (when 64% were trained) but is a return to the approximate level seen in 2011 (56%).

As in previous years, the proportion of the workforce receiving training increased with the size of establishment, rising from 42% among those with 2 to 4 employees, to 68% of those with 100 or more staff.

As shown in Figure 5.2, two of the sectors most likely to train also trained higher than average proportions of their staff: Health and Social Work (79%) and Education (76%). Although employers in Public Administration were among the most likely to offer any training, the proportion of their workforce trained (59%) was below average. This represents a substantial drop compared with 2015 (74%), and a return to the level seen in 2011 (61%).

The sectors with the lowest proportions of staff trained were Manufacturing (49%), Construction (50%), Transport and storage (51%), and Primary Sector and Utilities (52%).

Figure 5.2 Proportion of staff trained by sector, 2013 - 2017

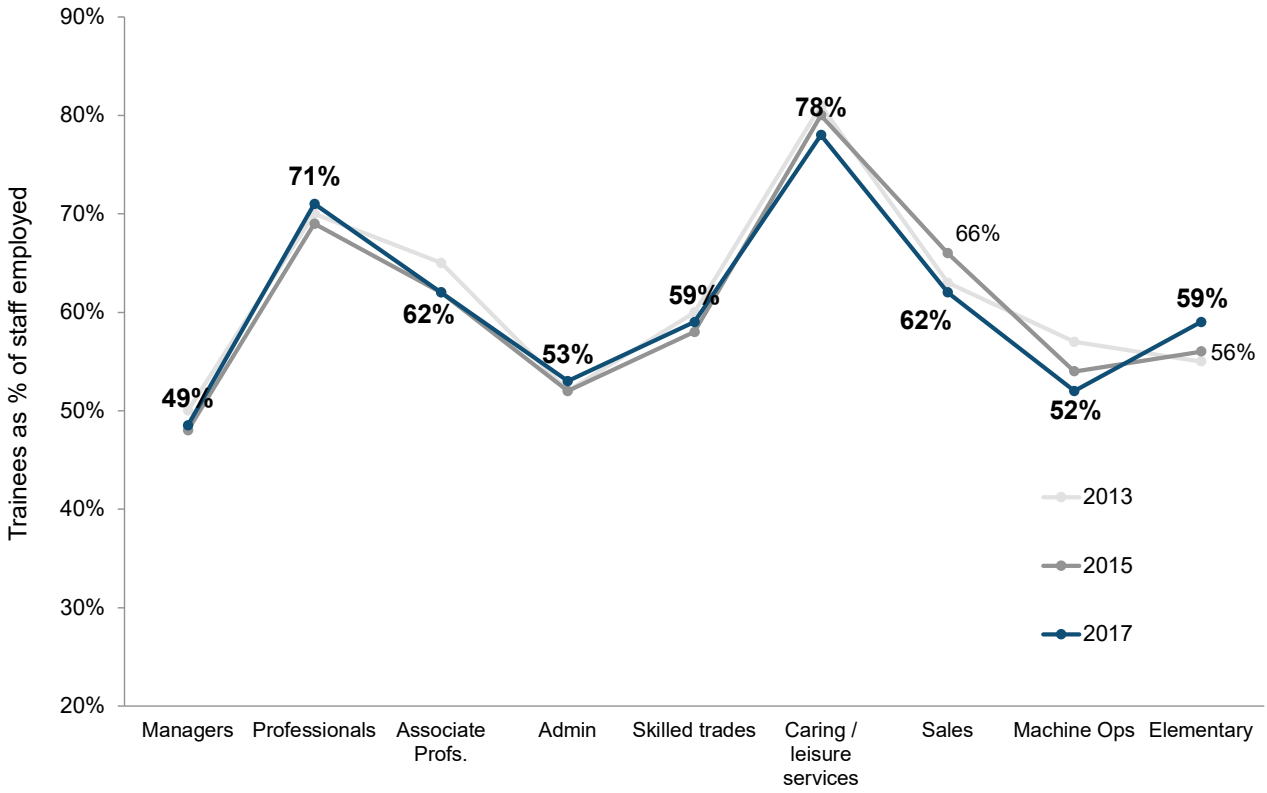


Data for the number and proportion of staff trained by sector, from 2011 to 2017, are provided in Table A.5.3 in Appendix A.

On an occupational level, as in 2015, Caring, Leisure and Other Services staff were most likely to have received training in the previous 12 months (78%), followed by those in Professional roles (71%). Least likely to have received training were Managers (49%), Machine Operatives (52%) and Administrative Staff (53%).

As shown in Figure 5.3, the proportion of staff trained by occupation has remained very consistent over time, with only a few changes: a fall in the proportion of Machine Operatives receiving training (from 57% in 2013 to down to 52% in 2017), and in the proportion of Sales Staff receiving training, from 66% in 2015 to 62% in 2017 (a return to the proportion seen in 2013). Conversely, the proportion of Elementary Staff receiving training increased from 56% in 2015 to 59% in 2017.

Figure 5.3 Proportion of staff trained over the last 12 months by occupation (2013 - 2017)



Base: All establishments with staff in each occupation (excluding establishments where the numbers of staff trained is unknown; see Table A.5.4 in Appendix A for base sizes)
For simplicity figures are only shown for 2017 and 2015

Produced by IFF Research

Training days

The total number of training days provided by employers over the last 12 months was 114m, equivalent to 6.4 days per annum per trainee and 4.0 days per employee. The total training days figure represents a decrease from 2015, and the days per trainee and employee are slightly lower (see Table 5.2).

The proportion of employers providing one day of training or less per trainee increased to 14% from 11% in 2015. The proportion providing 20 days or more remained consistent (7%, in line with 8% in 2015).

Training days per trainee were broadly consistent across England (6.4), Scotland (6.5) and Wales (6.2),but was lower in Northern Ireland (5.7) which also had the lowest days per employee (3.5).

This is a similar picture to 2015 except in Wales, which has seen a 20% decrease in total training days and a corresponding reduction in training days per trainee (from 7.2 to 6.2) and per employee (4.6 to 3.6).

The pattern seen in previous years of the largest establishments offering the fewest days training per trainee continued.

Among all size bands, the number of training days per trainee has fallen or remained in line with 2015, with the largest falls recorded for the smallest establishments with fewer than five employees (from 10.1 days per trainee in 2015 to 8.9 days per trainee in 2017). The trainings days per trainee figures for employers with between 2 and 24 staff are at their lowest level in the 2011 to 2017 period.

Table 5.2 Total training and development days, and days per person trained and per employee by country and establishment size (2011 - 2017)

	2011			2013			2015			2017		
	Training days			Training days			Training days			Training days		
	Total	per trainee	per employee	Total	per trainee	per employee	Total	per trainee	per employee	Total	Per trainee	Per employee
UK	115m	7.8	4.2	113m	6.7	4.2	118m	6.8	4.2	114m	6.4	4.0
Country												
England	97m	7.9	4.3	95m	6.7	4.2	100m	6.8	4.3	98m	6.4	4.0
Northern Ireland	3m	6.3	3.5	3m	6.3	3.7	3m	5.6	3.6	3m	5.7	3.5
Scotland	10m	7.3	4.2	10m	6.7	4.3	10m	6.7	4.2	10m	6.5	4.1
Wales	5m	7.5	4.2	6m	7.7	4.8	5m	7.2	4.6	4m	6.2	3.6
Size												
2-4	10m	10.5	4.2	11m	10.7	4.4	10m	10.1	4.3	10m	8.9	3.8
5-24	30m	9.0	4.7	29m	8.3	4.5	32m	8.5	4.7	28m	7.5	4.2
25-49	17m	8.4	4.9	15m	7.3	4.6	17m	7.7	5.0	17m	7.4	4.8
50-99	16m	8.1	4.8	15m	6.7	4.4	17m	7.5	5.0	16m	6.9	4.5
100-249	16m	6.6	4.0	17m	6.3	4.3	16m	5.6	3.8	18m	5.8	4.1
250+	25m	6.4	3.4	26m	5.0	3.5	25m	4.8	3.4	25m	4.7	3.2

Base: All establishments that train (though 'days per employee' is based upon employment across all establishments). Base sizes are shown in Table A.5.5 in Appendix A.

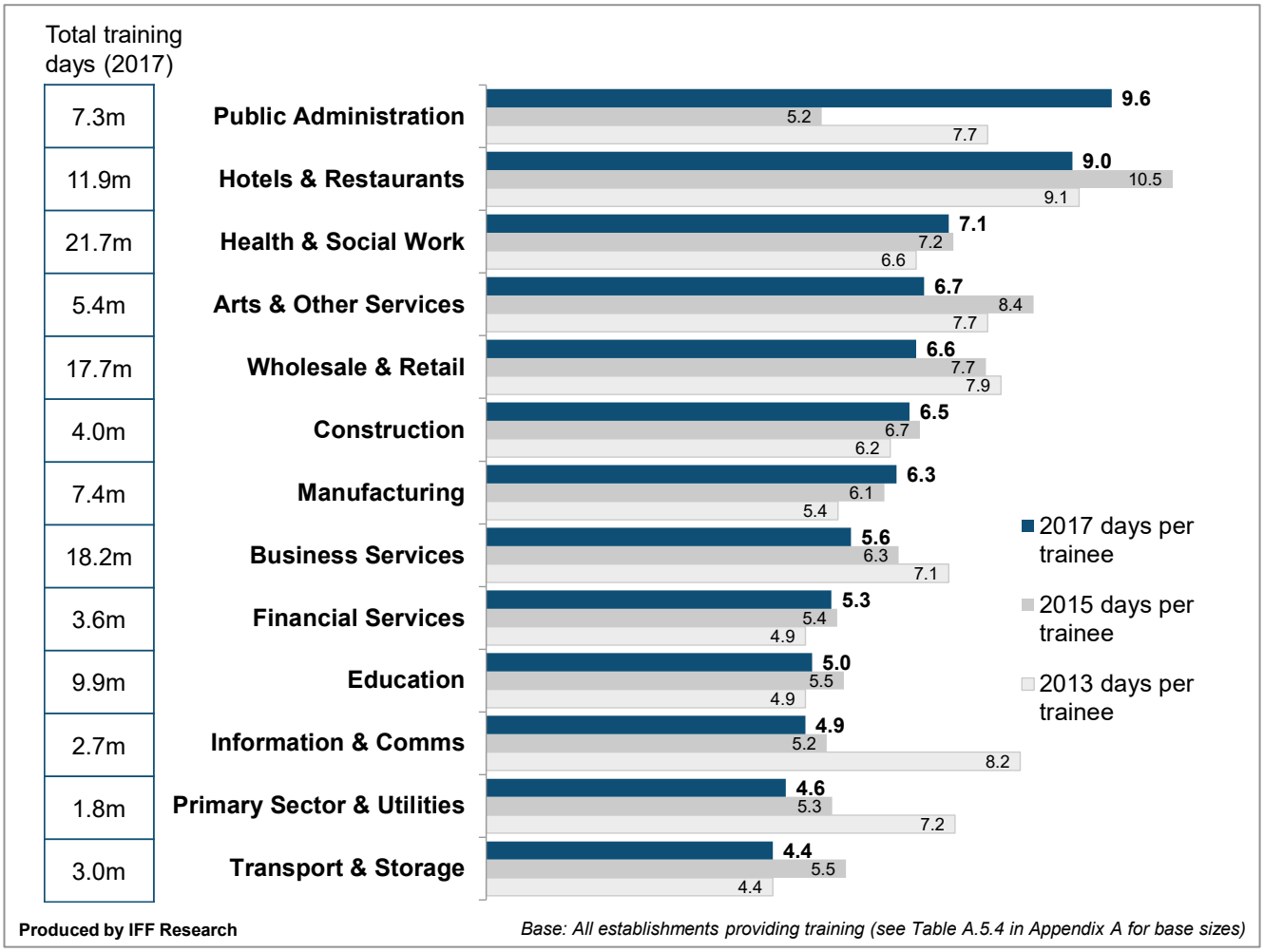
In terms of the number of days training per *employee*, it remains the case that this is highest among mid-sized employers with 25 to 99 staff. The most notable change has been a fall in the days per employee among small employers with 2 to 24 staff.

By sector, Figure 5.4 shows that the highest number of training days per trainee were in Public Administration (9.6 days), Hotels and Restaurants (9.0 days), and Health and Social Work (7.1 days).

From 2011 to 2015, training days per trainee in Public Administration had fallen (from 9.9 days in 2011 to 5.2 in 2015), but in 2017 this trend has reversed, with each person trained in this

sector receiving on average 9.6 days of training. This has been driven by an increase in total training days in the sector (5.1m in 2015 to 7.3m in 2017) accompanied by a decrease in the total number trained.

Figure 5.4 Training days per trainee by sector, 2013 - 2017



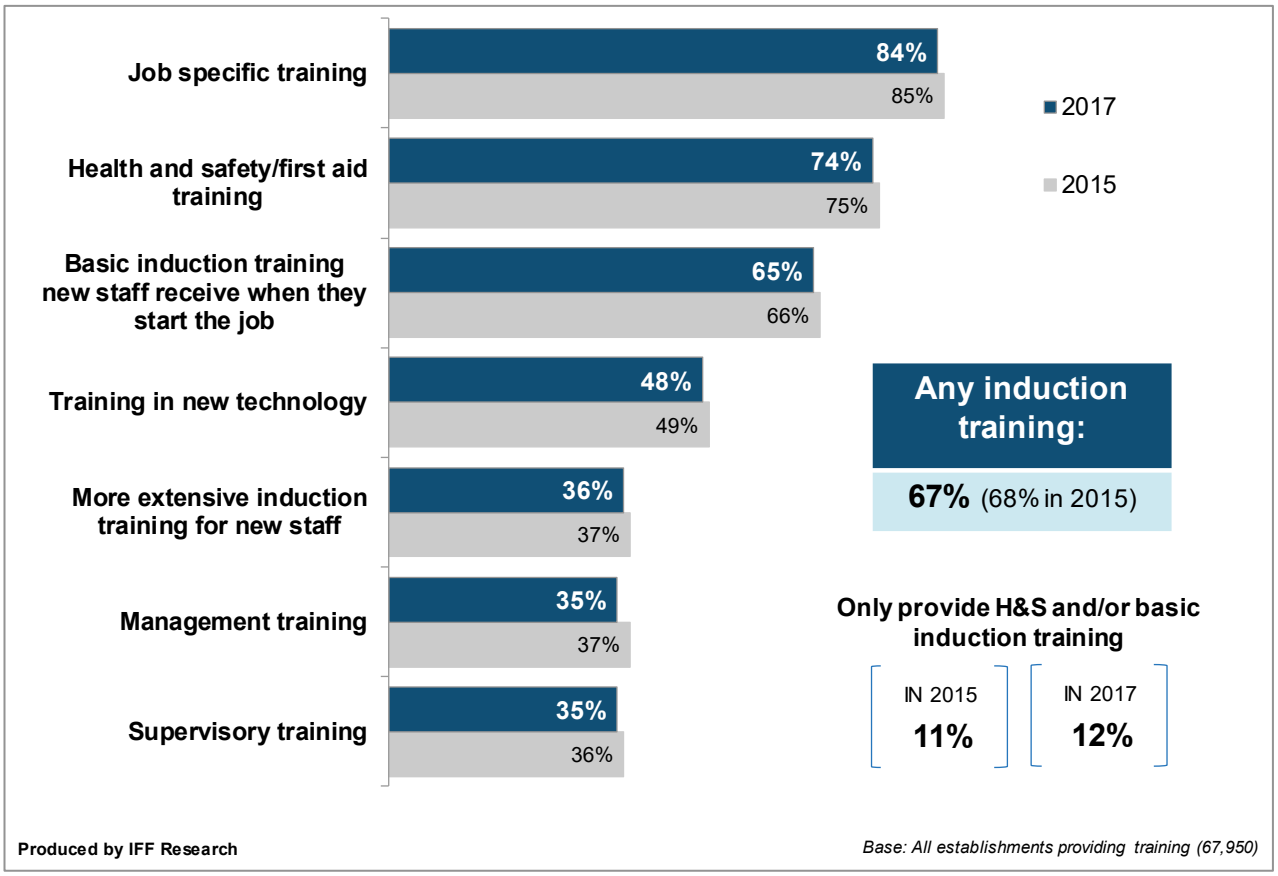
Data by sector for the total number of training and development days, and days per person trained and per employee from 2011 to 2017 can be found in Tables A.5.6 and A.5.7 in Appendix A.

Types of training provided

As in previous ESS iterations, the most common type of training provided was job specific training (84%). Three-quarters (74%) of employers had also provided health and safety or first aid training, and two-thirds (67%) had provided induction training for new staff.

The proportions providing each type of training remained consistent with 2015, in most cases dropping one percentage point, apart from management training, which fell from 37% in 2015 to 35% in 2017.

Figure 5.5 Types of training provided over the last 12 months by employers that train (prompted)



Larger employers with 25 or more staff were more likely to have provided each of the types of training listed in Figure 5.5 in the previous 12 months, in particular health and safety or first aid training (93%), job specific training (92%) and basic induction training for new staff (91%).

Training in new technology was substantially more common among employers in Information and Communications (71%, compared with 48% on average), though they were less likely than average to offer each of the other types of training listed in Figure 5.5. Management training was offered by a greater proportion of Education employers (56%, compared with 35% overall), while supervisory training was particularly common in the Hotels and Restaurants sector (53%, compared with 35% overall).

More details of types of training provided by sector, as well as by country and establishment size, are provided in Table A.5.8 in Appendix A.

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.

A third (33%) of training employers said that *at least half* of all their training was induction or health and safety training, indeed 12% said that *all* their training in the last 12 months was

induction or health and safety (equivalent to 8% of all employers); in both cases these figures represent an increase of one percentage point from 2015, and a continuation of a trend observed since 2011 of induction and health and safety comprising an increasing share of all training provided. Excluding those offering only induction or health and safety training, just under three-fifths (58%) of all employers offered training to develop skills.

Employers that trained in England and Northern Ireland were more likely to say that induction and health and safety comprised all their training (13% and 12% respectively), compared with employers in Scotland and Wales (10% each).

By sector, induction and health and safety comprising *all* training offered was most common in Hotels and Restaurants (21%) and Construction (18%).

A detailed breakdown of the proportion of training that was health and safety or induction in 2017 by country, and at UK level for 2011 – 2015, is provided in Table A.5.9 in Appendix A.

Training to qualifications

In addition to measuring the quantity and type of training provided, the survey also sought to assess the extent to which training was designed to lead to nationally recognised qualifications – a potential proxy for *quality* of training.

The proportion of training employers offering training intended to lead to a nationally recognised qualification has fallen since 2015, from 47% to 45%. The number of staff on training leading to nationally recognised qualifications in the previous 12 months also fell, from 3.5m in 2015 to 3.2m in 2017. Overall just under a fifth (18%) of all staff who received training in the previous 12 months were trained towards a nationally recognised qualification, down from 20% in 2015 and continuing a downward trend seen since 2011.

The decrease in training to qualifications occurred at levels 1, 2 and 3, while the proportion of training employers using Level 4 qualifications was unchanged.

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

	All employers:				Employers that train:				
	2011	2013	2015	2017	2017				
	UK	UK	UK	UK	UK	England	N. Ireland	Scotland	Wales
	%	%	%	%	%	%	%	%	%
Trained any staff to a qualification	30	31	31	30	45	46	44	41	51
Trained any to:									
Level 1	6	6	6	5	8	8	9	8	10
Level 2	10	11	11	10	15	15	12	10	18
Level 3	11	12	12	11	17	17	14	11	19
Level 4 or above	8	10	9	9	14	14	15	13	18
Number trained to a qualification	3.3m	3.6m	3.5m	3.2m	3.2m	2.8m	0.1m	0.2m	0.2m
Of staff trained, the % trained to a qualification over the last 12 months	22	21	20	18	18	18	17	15	22
Of all employees, % trained to a qualification over the last 12 months	12	13	12	11	11	11	10	9	13

Base: Columns 1-4 'All establishments', columns 5 to 9 'Establishments that train'; Base sizes are shown in Table A.5.5 in Appendix 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.

Table A.5.10 in Appendix A details the incidence and extent of provision of training leading to qualifications by size and sector.

As in previous years, employers in Wales that provided training were the most likely to have offered training designed to lead to a nationally recognised qualification (51%) and those in Scotland were the least likely (41%). The proportion of training intended to lead to nationally recognised qualifications has fallen in each of the nations since 2015, apart from Northern Ireland, where the proportion remained in line with 2015, at 44%.

By size, it was more common for larger training employers to offer training intended to lead to a nationally recognised qualification, with the proportion rising from a third (35%) of those with fewer than 5 staff to three-quarters (74%) of those with 250 or more staff. However, a greater proportion of trainees at smaller establishments were trained towards qualifications: around a quarter of trainees at establishments with 2 to 4 employees and 5 to 24 employees received such training (26% and 24% respectively), compared with 11% of trainees at the largest establishments with 250 or more staff.

Among establishments providing training, offering the opportunity to train towards nationally recognised qualifications was most common among employers in Education (66%), Health and

Social Work (61%) and Public Administration (56%). Other sectors more likely than average to train towards qualifications were Construction (51%), Financial Services (51%) and Hotels and Restaurants (50%). At the other end of the scale, employers that trained in Information and Communications were least likely to offer training towards nationally recognised qualifications (31%).

By sector, the proportion of employees offered training intended to lead to a nationally recognised qualification was highest in Health and Social Work (21% of all employees) and Construction (17%). Although Education and Public Administration employers were more likely to offer training towards qualifications, the proportion of employees receiving such training was below average (10% and 8% respectively). Employers in Information and Communications trained the lowest proportion of their staff towards a nationally recognised qualification (5%).

Online / e-learning and other self-learning

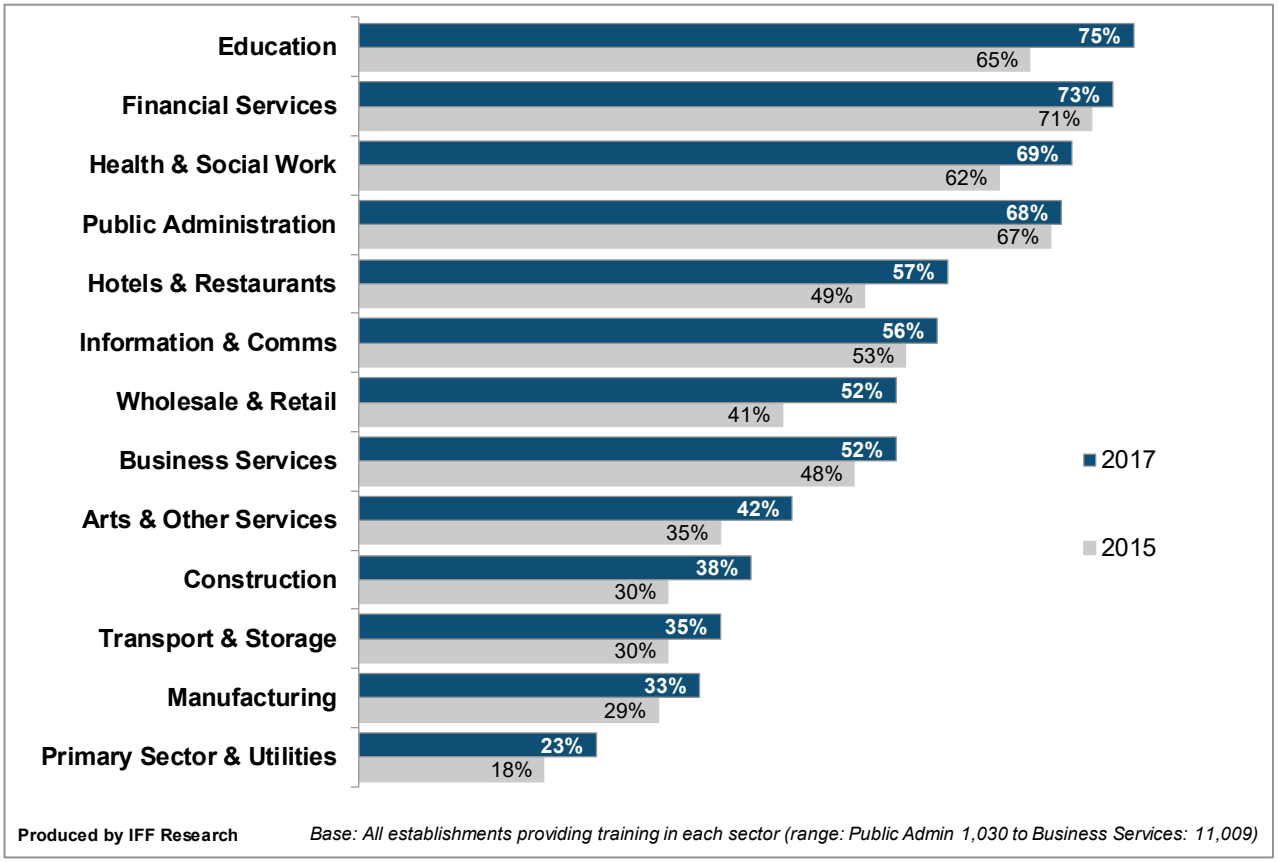
The proportion of employers offering online training or e-learning in the previous 12 months has increased since 2015, rising from 45% of employers that trained to 51% in 2017. The proportion offering this mode of training has increased in each nation, though it remains the case that it is less common in Northern Ireland (offered by 38% of training employers, up from 34% in 2015).

As in 2015, use of online training or e-learning increased with size of establishment, from two-fifths (41%) of those with fewer than 5 staff that trained to four-fifths (80%) of those with 250 or more staff.

As illustrated in Figure 5.6, use of online training or e-learning was highest among employers that trained in Education (75%), Financial Services (73%), Health and Social Work (69%) and Public Administration (68%); it was least common among those in Primary Sector and Utilities (23%).

Although there have been increases in the use of online / e-learning in all sectors since 2015, particularly large increases have taken place in Wholesale and Retail (up 11 percentage points), Education (10 percentage points), Hotels and Restaurants and Construction (each eight percentage points), and Health and Social Work and Arts and Other Services (each up seven percentage points).

Figure 5.6 Use of online training or e-learning, by sector (2015 - 2017)



Around two-fifths (42%) of employers that trained offered other self-learning (i.e. besides online or e-learning) where the employee does the learning at a time of their own choosing; this is an increase from 38% in 2015. As with online or e-learning, employers that trained in Northern Ireland were the least likely to offer other self-learning (34%), and employers in England were most likely to do so (43%).

Other self-learning followed the same pattern as online / e-learning in terms of establishment size, with use increasing among training employers from 36% of those with 2 to 4 staff, up to 67% of those with 250 or more staff.

By sector, among employers providing training, other self-learning was most commonly offered by employers in Financial Services (60%), Health and Social Work (59%) and Education (56%). As with online training or e-learning, employers in Primary Sector and Utilities were least likely to have offered their staff other self-learning (24%).

Overall, around two-fifths (62%) of employers that trained had offered *either* online training / e-learning or other self-learning, up from 57% in 2015.

Table A.5.11 in Appendix A provides a detailed breakdown of figures on provision of online training or e-learning and other self-learning by country, size and sector.

Investment in training

Employer expenditure on training and development over the previous 12 months was £44.2bn. 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 5.5 later in this chapter.

The 2017 training expenditure of £44.2bn represents a 1% increase in real terms on the 2015 figure of £43.6bn and the 2011 figure of £43.8bn and is around 8% higher than in 2013 (£41.1bn)[42]. Note, inflation has been taken into account for the figures from earlier years[43].

Employers' total investment in training over the previous 12 months was equivalent to around £2,470 per person trained and £1,530 per employee. These figures have decreased by 1% and 2% respectively since 2015 (see Table 5.4) − reflecting increases in the number of people trained and the number employed in 2017 – though across the ESS series since 2011 the per employee and per trainee training spends have been relatively stable.

[42] In 2017 a new strategy for training expenditure was implemented to improve the accuracy of the training spend estimates; this new strategy has also been retrospectively applied to the 2011, 2013 and 2015 data files, meaning some of the figures reported here for previous years differ from the original reports. A full explanation of the new cost calculation strategy, the rationale behind it, are presented in a separate Technical Report.

[43] We have adjusted 2015, 2013 and 2011 training expenditure figures to reflect inflation, so that in effect they are presented in '2017 prices.' The adjustments used were an uplift of 3.4% for the original 2015 data collected, 4.97461928934011% for 2013, and 10.7066381156317% for 2011. Source of inflation figures: https://www.ons.gov.uk/economy/inflationandpriceindices/datasets/consumerpriceinflation, Table 20a

Table 5.4 Total training expenditure and spend per person trained and per employee (2011 to 2017), in 2017 prices

	2011			2013			2015			2017		
	Total	Per trainee	Per employee	Total	Per trainee	Per employee	Total	Per trainee	Per employee	Total	Per trainee	Per employee
	£	£	£	£	£	£	£	£	£	£	£	£
UK	43.8bn	3.0k	1.6k	41.1bn	2.4k	1.5k	43.6bn	2.5k	1.6k	44.2bn	2.5k	1.5k
England	37.2bn	3.0k	1.6k	34.8bn	2.5k	1.5k	37.3bn	2.5k	1.6k	37.5bn	2.5k	1.5k
Northern Ireland	1.2bn	2.9k	1.6k	1.1bn	2.5k	1.5k	0.9bn	2.0k	1.3k	1.0bn	2.3k	1.4k
Scotland	3.8bn	2.8k	1.6k	3.4bn	2.2k	1.5k	3.3bn	2.2k	1.4k	3.7bn	2.4k	1.5k
Wales	1.6bn	2.5k	1.4k	1.9bn	2.6k	1.6k	2.1bn	2.7k	1.7k	2.0bn	2.8k	1.6k
Size												
2-4	5.6bn	5.9k	2.4k	5.4bn	5.5k	2.3k	5.8bn	5.7k	2.4k	6.3bn	5.6k	2.4k
5-24	12.2bn	3.6k	1.9k	12.3bn	3.5k	1.9k	13.5bn	3.6k	2.0k	13.9bn	3.6k	2.0k
25-49	6.1bn	3.1k	1.8k	6.2bn	2.9k	1.9k	6.1bn	2.7k	1.7k	6.7bn	2.9k	1.9k
50-99	5.5bn	2.7k	1.6k	5.2bn	2.3k	1.5k	6.1bn	2.7k	1.8k	5.3bn	2.3k	1.5k
100+	14.4bn	2.2k	1.3k	11.9bn	1.5k	1.1k	12.0bn	1.5k	1.0k	12.0bn	1.4k	1.0k
Sector												
Primary Sector & Utilities	1.6bn	5.0k	2.3k	0.8bn	2.2k	1.1k	1.3bn	3.9k	1.9k	1.1bn	2.7k	1.4k
Manufacturing	3.2bn	2.9k	1.3k	2.4bn	2.1k	1.1k	2.9bn	2.3k	1.2k	3.0bn	2.5k	1.2k
Construction	2.4bn	3.6k	1.8k	2.4bn	4.0k	1.9k	2.4bn	3.9k	2.1k	2.7bn	4.5k	2.3k
Wholesale & Retail	5.0bn	2.2k	1.1k	6.0bn	2.4k	1.4k	4.8bn	1.9k	1.1k	6.4bn	2.4k	1.4k
Hotels & Restaurants	2.9bn	3.1k	1.7k	2.5bn	2.3k	1.4k	3.1bn	2.5k	1.6k	3.1bn	2.3k	1.4k
Transport & Storage	2.0bn	3.7k	1.6k	1.3bn	1.8k	1.1k	1.4bn	2.0k	1.2k	1.5bn	2.3k	1.2k
Information & Comms	1.1bn	3.0k	1.3k	1.8bn	4.1k	2.1k	1.8bn	3.3k	1.8k	1.4bn	2.6k	1.4k
Financial Services	1.4bn	2.4k	1.4k	1.2bn	1.8k	1.2k	1.5bn	2.2k	1.5k	1.3bn	1.9k	1.3k
Business Services	8.3bn	3.7k	1.9k	8.1bn	3.0k	1.8k	9.4bn	3.3k	2.0k	9.7bn	3.0k	1.8k
Public Admin	3.1bn	3.3k	2.0k	2.0bn	2.1k	1.4k	1.9bn	1.9k	1.4k	2.2bn	2.9k	1.7k
Education	5.0bn	3.0k	2.0k	5.4bn	2.7k	2.1k	4.5bn	2.3k	1.7k	3.8bn	1.9k	1.5k
Health & Social Work	5.3bn	2.3k	1.5k	5.1bn	1.8k	1.4k	5.9bn	2.0k	1.5k	5.6bn	1.8k	1.4k
Arts & Other Services	2.3bn	3.5k	1.9k	2.0bn	2.6k	1.6k	2.6bn	3.4k	2.1k	2.4bn	3.0k	1.8k

Base: Establishments completing the Investment in Training study (UK 2011: 11,027; 2013: 12,522; 2015: 12,614; 2017: 12,466). Spends per trainee and employee to the nearest 10. See Table A.5.15 in Appendix A for base sizes.

Training spend per person trained was highest in Wales (£2,790) and lowest in Northern Ireland (£2,340); the same pattern applied to spend per employee, though by a smaller margin (£1,610 in Wales compared to £1,410 in Northern Ireland).

As in previous years, training spend per person trained and per employee decreased with employer size. Employers with 2 to 4 staff provided around four more training days per person trained than those with 100 or more employees (8.9 days per annum compared with 5.1 days) and spent four times as much per person trained (£5,650 per person trained, compared with £1,440 among employers with 100 or more staff). This pattern is likely to reflect economies of scale.

Spend per trainee per annum was highest in Construction (£4,510). Although this figure was higher than in previous years (£3,910 in 2015 and £4,000 in 2013), it is in keeping with Construction being among the top two sectors in terms of spend per trainee since 2013. Spend per trainee was lowest in Health & Social Work (£1,820), Financial Services (£1,860) and Education (£1,930).

There were quite considerable changes since 2015 within certain sectors, with large increases in total training expenditure within:

- Wholesale and Retail (an increase of 34%)
- Public Administration (an increase of 18%)
- Construction (an increase of 12%)
- Transport and Storage (an increase of 9%).

The increase in training spend in the Wholesale and Retail sector brings spend per person trained and spend per employee more in line with the all-sector average, and with results seen for this sector in 2013.

Increase in training expenditure within Public Administration is even more marked when looking at spend per employee (an increase of 23% on the 2015 figure). As noted earlier, there was a particularly large increase among Public Administration employers in the number of training days provided per employee since 2015 (from 3.8 days to 5.7 days).

Fairly substantial decreases in total training expenditure from 2015 to 2017 occurred within the following sectors:

- Primary Sector and Utilities (a 20% decrease, in contrast to an increase between 2013 and 2015)
- Information and Communications (a 20% fall)
- Financial Services (a 17% fall, with total training expenditure returning to levels seen in 2011 and 2013)

- Education (a 15% fall, continuing the decrease in spend per person trained and spend per employee seen since 2013)

Smaller decreases in total training expenditure since 2015 were seen in Arts & Other Services (an 8% decrease), Health & Social Work (a 5% decrease) and Hotels & Restaurants (a 1% decrease).

Tables A.5.12 and A.5.13 in Appendix A provide a breakdown of training expenditure by country, size and sector.

As shown in Table 5.5, the overall composition of training expenditure remained similar to previous years, with off-the-job training accounting for 55% of overall spend, and on-the-job training for 45%. Nor have there been significant changes in more detailed constituent elements of training spend.

Both on- and off-the-job training expenditure increased by around £0.6bn compared with 2015.

Increased investment in off-the-job training was primarily driven by increased expenditure on the management of training[44] (an increase of £0.3bn from 2015 to 2017; these costs had also increased from 2013 to 2015) and fees to external providers (also a £0.4bn increase from 2015 to 2017), while the increase in on-the-job training expenditure was mostly driven by higher expenditure on the wages of those being trained.

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

Table 5.5 Total training expenditure broken down by individual components (2011 to 2017)

	2011		2013		2015		2017	
***Unweighted Base*:**	***11,027***		***12,522***		***12,614***		***12,466***	
	£	**%**	**£**	**%**	**£**	**%**	**£**	**%**
Total training expenditure	**43.8bn**	**100**	**41.1bn**	**100**	**43.6bn**	**100**	**44.2bn**	**100**
Off-the-job training: total	*23.6bn*	54	*22.5bn*	55	*23.9bn*	55	*24.3bn*	55
Off-the-job training: Course-related: total	*19.8bn*	45	*19.0bn*	46	*20.8bn*	48	*20.8bn*	47
Trainee labour costs	4.9bn	11	5.1bn	12	5.3bn	12	5.1bn	12
Fees to external providers	3.0bn	7	2.5bn	6	2.3bn	5	2.5bn	6
On-site training centre	3.8bn	9	3.4bn	8	3.8bn	9	3.5bn	8
Off-site training centre (in the same company)	0.7bn	2	0.5bn	1	0.7bn	2	0.8bn	2
Training management	6.8bn	16	6.9bn	17	8.0bn	18	8.3bn	19
Non-training centre equipment and materials	0.4bn	1	0.4bn	1	0.5bn	1	0.4bn	1
Travel and subsistence	0.5bn	1	0.4bn	1	0.4bn	1	0.4bn	1
Levies minus grants	-0.3bn	-1	-0.2bn	-1	-0.2bn	-1	-0.2bn	-*
Off-the-job training: other (seminars, workshops etc.): total	*3.8bn*	9	*3.4bn*	8	*3.2bn*	7	*3.4bn*	8
Trainee labour costs	2.6bn	6	2.5bn	6	2.3bn	5	2.4bn	5
Fees to external providers	1.2bn	3	0.9bn	2	0.9bn	2	1.0bn	2
On-the-job training: total	*20.2bn*	46	*18.6bn*	45	*19.6bn*	45	*19.9bn*	45
Trainee labour costs	12.6bn	29	12.0bn	29	12.1bn	28	12.5bn	28
Trainers' labour costs	7.6bn	17	6.6bn	16	7.5bn	17	7.4bn	17

Base: Establishments completing the Investment in Training study

** denotes a figure between -0.5% and 0%*

In line with previous years, the wages of staff being trained (trainee labour costs) accounted for nearly half of all training expenditure (45%, compared with 46% in 2011, 48% in 2013 and 45% in 2015). Also in keeping with previous years, the wages / salaries of those providing on-the-job training accounted for around a sixth of total training expenditure (17%). Payments to external training providers accounted for a relatively small proportion of total expenditure (8%).

Table 5.6 summarises the breakdown of training expenditure by size and sector of establishment.

Table 5.6 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

	Unwtd Base		Expenditure on training (£)		% spent on off-the-job training	Wages of trainees	Wages of trainers	Fees to external providers	Other
						%	%	%	%
UK	*12,466*	£	44.2bn	%	55	45	17	8	30
Size									
2-4	*2,090*	£	6.3bn	%	63	33	17	10	40
5-24	*6,988*	£	13.9bn	%	57	41	18	8	33
25-49	*1,885*	£	6.7bn	%	53	47	16	7	30
50-99	*947*	£	5.3bn	%	50	52	16	8	24
100+	*556*	£	12.0bn	%	51	54	16	8	23
Sector									
Primary Sector & Utilities	*546*	£	1.1bn	%	59	40	20	9	31
Manufacturing	*807*	£	3.0bn	%	53	49	16	9	26
Construction	*857*	£	2.7bn	%	58	41	19	11	30
Wholesale & Retail	*1,670*	£	6.4bn	%	50	43	20	7	30
Hotels & Restaurants	*1,011*	£	3.1bn	%	41	46	24	4	26
Transport & Storage	*534*	£	1.5bn	%	48	52	15	6	26
Information & Comms	*573*	£	1.4bn	%	58	38	18	11	33
Financial Services	*390*	£	1.3bn	%	60	45	16	7	32
Business Services	*2,373*	£	9.7bn	%	54	43	19	10	28
Public Admin.	*256*	£	2.2bn	%	50	53	11	7	29
Education	*895*	£	3.8bn	%	62	50	11	7	32
Health & Social Work	*1,478*	£	5.6bn	%	63	49	12	7	32
Arts and Other Services	*1,076*	£	2.4bn	%	61	40	13	7	39

Base: Establishments completing the Investment in Training study

As employer size increases, the proportion of total training expenditure spent on off-the-job training decreases, while the proportion spent on the wages / salaries of people being trained increases.

Health and Social Work and Education were the sectors spending the largest proportion of total training expenditure on off-the-job training (63% and 62% respectively), closely followed by Arts & Other Services (61%). As in previous years, Hotels & Restaurants spent by far the lowest proportion on off-the-job training (41%). Transport & Storage, Wholesale & Retail and Public

Adminstration were the only other sectors where half of total training expenditure or less was for off-the-job training (48%, 50% and 50% respectively).

For Hotels & Restaurants, the proportion of training investment spent on wages of trainers was much higher than average (24% compared with 17% overall in the UK).

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 for Public Administration and Transport & Storage (53% and 52% respectively), and lowest in Information & Communications (38%) and Primary Sector and Utilities and Arts and Other Services (both 40%).

The proportion of total training expenditure spent on fees to external providers varied relatively little by establishment size, although it accounted for a slightly larger proportion (10%) for the very smallest employers with fewer than five staff (seeTable 5.6). There was slightly more variation by sector, with Construction, Business Services and Information & Communications employers spending around one tenth of their training expenditure on fees to external providers, more than double the proportion among employers in the Hotels & Restaurants sector (4%).

Around £0.5bn was spent by employers in the previous 12 months on fees to FE colleges and Higher Education institutions (HEIs), equivalent to 15% of the total fees paid to external providers. These figures are unchanged from 2015. Details of the fees paid to FE colleges or to Universities or other HEIs for training is shown in Table A.5.14 in Appendix A.

In total, employers in the UK spent £0.5bn on online training or e-learning for staff[45] in 2017, equating to 1% of total training expenditure. Expenditure on this type of learning has increased by around two-fifths (40%) from the £0.3bn reported in 2015. This reflects the increased use of this form of training discussed earlier.

Barriers and limits on training

Approaching half of employers that trained (45%) would have liked to provide more training than they were able to over the last 12 months (similar to the 46% in 2015). This desire was more common among:

- Employers in Scotland (51%)
- Larger employers (61% of those with 250 or more employees, compared to 40% of those with fewer than 5 employees)

[45] ‘Out of pocket’ costs incurred by this establishment in purchasing or developing online or e-training for example paying an external provider or consultancy

- Employers in the Education sector (57%), Arts and Other Services (51%) and Health and Social Work (50%). It was least common among employers in Financial Services (35%) and Primary Sector and Utilities (36%).

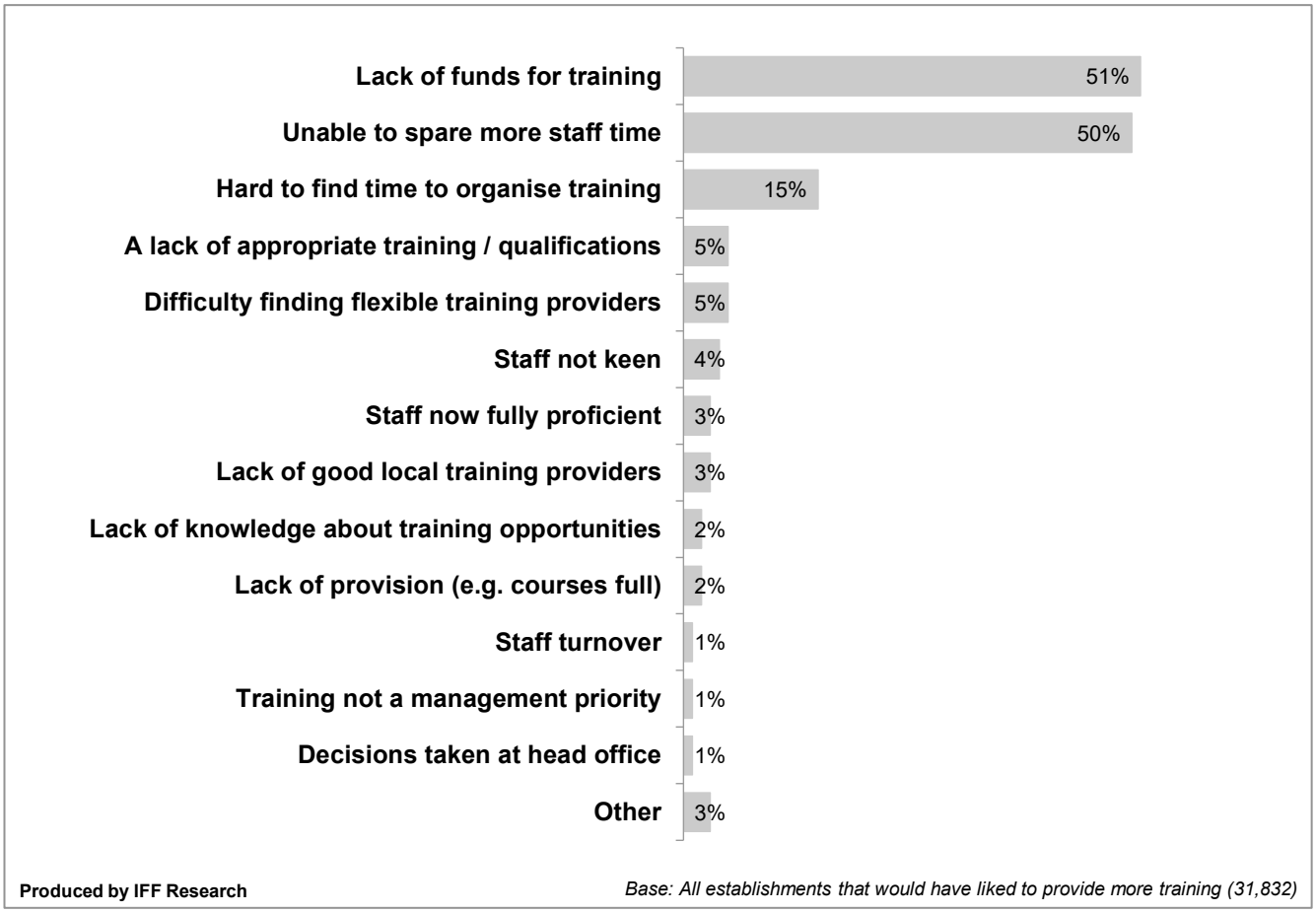
The two most common reasons for employers being unable to deliver as much training as they would have liked were:

- Not having the funds to do so (51%, in line with the 52% in 2015). This reason was more common among employers in Northern Ireland (58%) and Wales (57%) and establishments with 100 or more staff (also 61%).

- Being unable to spare more staff time for training (50%, in line with the 49% in 2015); this reason was more likely to be mentioned by employers in Scotland (58%).

The full list of reasons given is shown in Figure 5.7.

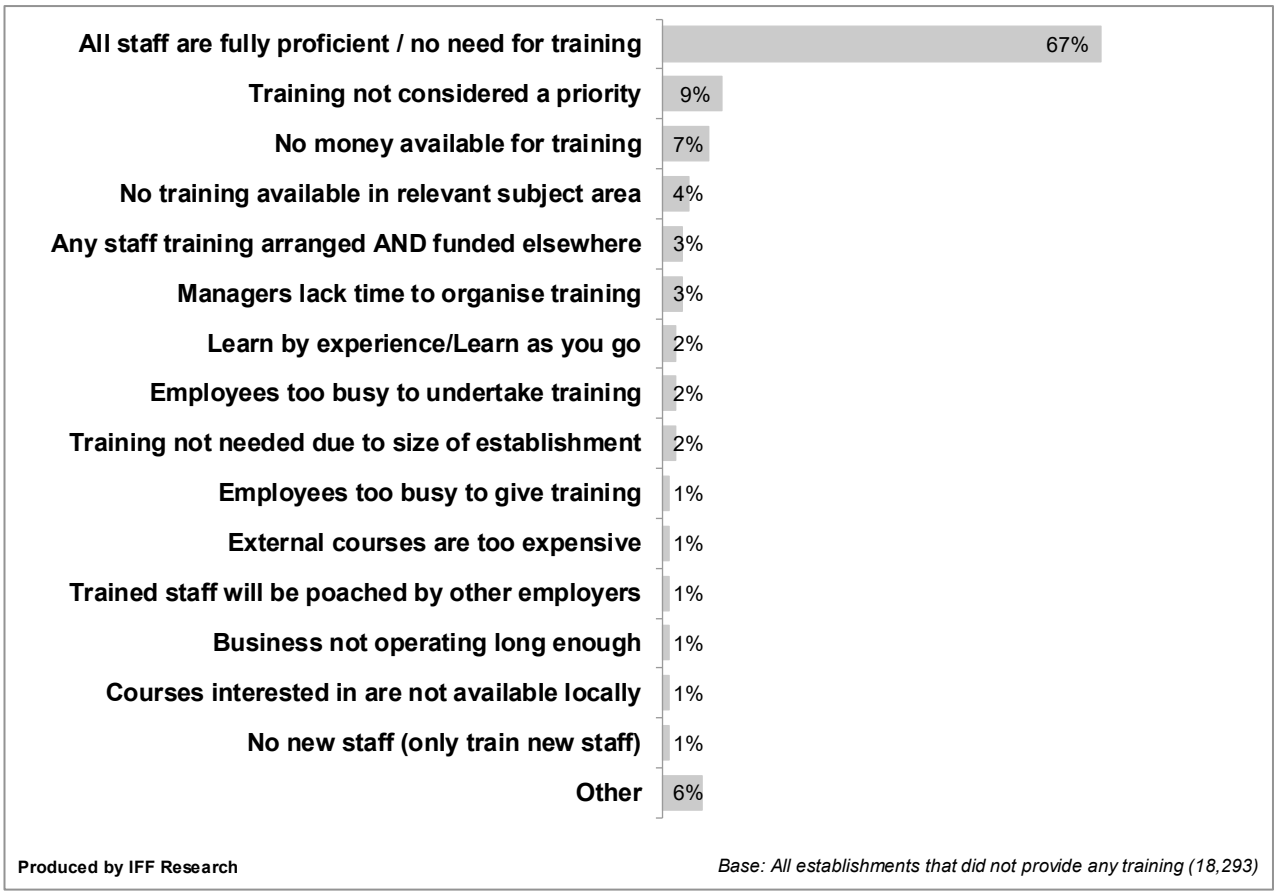
Figure 5.7 Reasons for not providing more training (spontaneous)



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.5.16 in Appendix A.

A third of employers (34%) chose not to provide any training or development for their staff in the previous 12 months. Figure 5.8 presents the reasons given by these employers for not training.

Figure 5.8 Reasons for not providing training in the previous 12 months (spontaneous)



The dominant reason for not providing any training was that all their staff were fully proficient and therefore training was not necessary (67%, similar to 68% in 2015).

Other less common reasons, indicative of training being treated as a lower priority than other issues, included training not being considered a priority (9%), managers lacking the time to organise training (3%), and employees being too busy to undertake training (2%) or deliver training (1%).

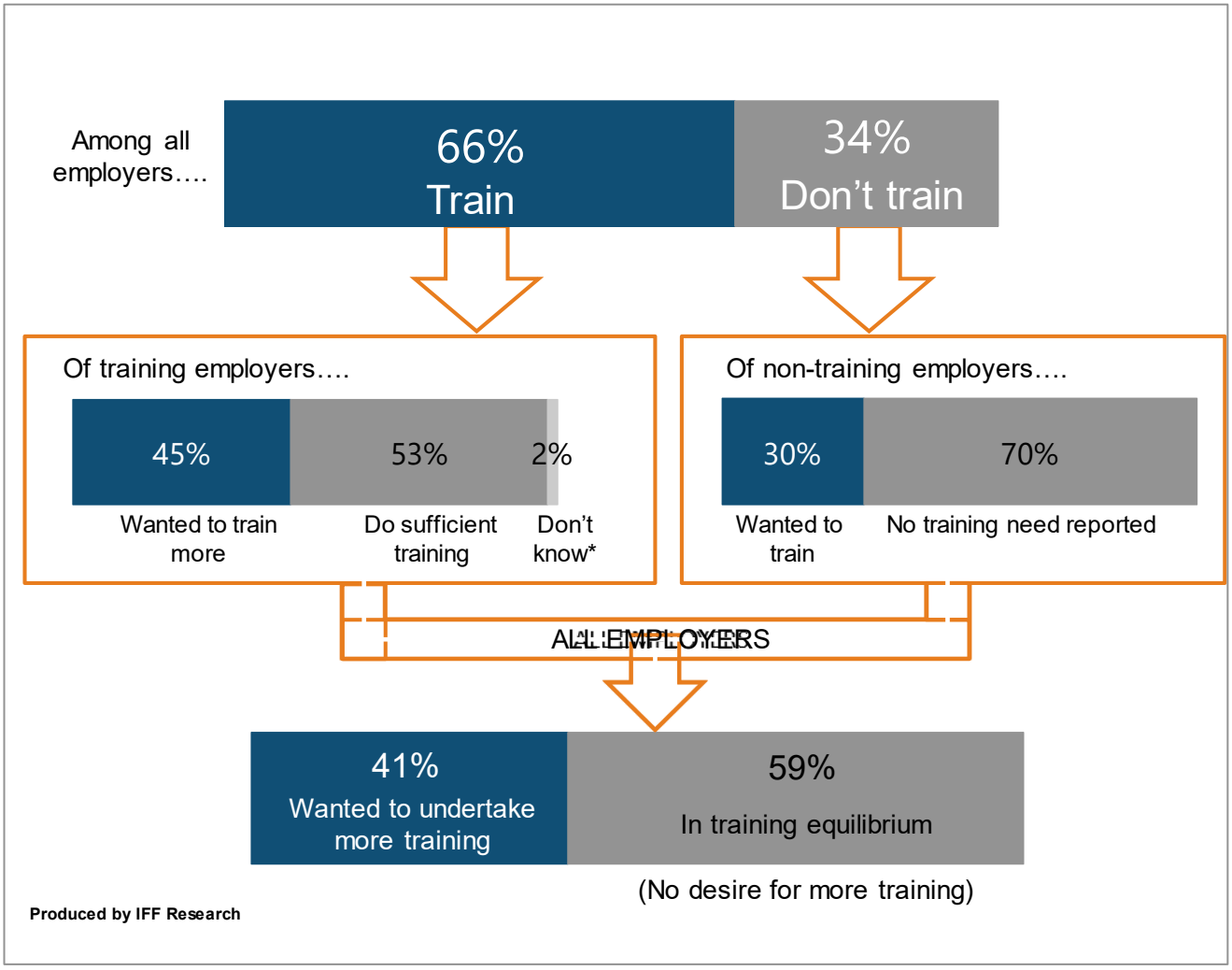
A lack of funds was mentioned as an issue by the same proportion of employers as in 2015 (7%); this was more common among employers in Information and Communications (11%), Education (11%) and Health and Social Work (10%), as well as among those in the charity or voluntary sector (14%) and those who are local or central government funded (12%).

Some employers mentioned supply-side factors external to the business, relating to the availability and accessibility of training: 4% mentioned a lack of relevant training, and 1% said that the courses they were interested in were not available locally.

More data on the reasons for not providing training can be found in Table A.5.17 in Appendix A.

Figure 5.9 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.[46] It also shows the proportion that were in 'training equilibrium' and had no wish to have undertaken more training. The 2017 results are all within one or two percentage points of those found in 2015.

Figure 5.9 Employer interest in undertaking more training over the last 12 months than they were able to provide



Overall around two-fifths (41%) of all employers would like to have undertaken more training over the previous 12 months, similar to the proportions in 2015 and 2013 (42%).

[46] 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.

Employers in Scotland were more likely than average to have wanted to undertake more training (45%).

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 35% among those with 2-4 staff, to 48% for those with 5-99 staff, to 61% among those with 100 or more staff).

Employers in Education (57%), Health and Social Work (53%) and Public Admin (52%) were more likely to have wanted to provide more training over the previous 12 months, while employers in Primary Sector and Utilities and Construction were least likely to have wanted to provide more (30% and 33% respectively).

Other development opportunities

Among employers where no formal training had been provided in the last 12 months, most (65%) had provided other development opportunities for their staff. These covered:

- 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.

This is equivalent to 21% of all employers providing development opportunities but not formal training. Added to the 66% training, this means only 13% provided neither formal training nor wider development opportunities.

The 2017 figures represent a slight fall in training opportunities compared with 2015 results, when 68% of non-training employers (23% of all employers) provided wider development opportunities, and 11% provided neither formal training nor wider development opportunities.

Data on how provision of wider development activities differed by country, sector and size of employer both from 2011 – 2017, and the nature of the development activity, is provided in Tables A.5.18a-b in Appendix A.

Chapter conclusions

Despite recent policy changes, the 2017 training landscape has remained largely consistent with previous years. Arguably, it is too soon to see the impact of policies such as the apprenticeship levy and associated funding changes yet, as those only came into force a few months before fieldwork for this survey was carried out.

While the proportion of employers training and the proportion of staff being trained remained the same as previous years, there are indications that the total volume, quality, and type of training may not be being maintained.

For example, the proportion of employers where at least half of their training in the last 12 months has been induction or health and safety has continued to increase, while the number of staff being trained to nationally recognised qualifications has fallen compared with 2015. In addition, each employee is also receiving fewer days training on average. This supports findings in other reports that the volume of workforce training is in decline, despite participation levels remaining relatively constant.[47]

Reductions in the total volume of training is also reflected in training expenditure, with spend per trainee and per employee having also decreased since 2015. The growth of online training and e-learning may be a sign of the future of workplace training and may be driving the reduction in per employee training spend. But there is wide disparity between sectors in the use of these forms of training, with take-up much lower among employers in the Primary Sector, Manufacturing, Transport, Construction and Arts and Other Services.

[47] Green, F; Felstead, A; Gallie, D; Inanc, H; Jewson, N; (2016) The Declining Volume of Workers' Training in Britain. British Journal of Industrial Relations, 54 (2) pp. 422-448. Accessed at http://discovery.ucl.ac.uk/1475084/3/Green_1475084_Training_Trends_in_Britain_rev2_final.pdf

6. High Performance Working

Chapter Summary

High Performance Working (HPW) is a general approach to managing organisations that aims to stimulate more effective employee involvement and commitment in order to achieve high levels of performance.

Overall, 9% of employers are regarded as HPW employers; that is, they adopt at least 14 of the 21 HPW practices covered in ESS (9% England, 8% each in Scotland and Wales, and 6% in Northern Ireland). This compares to 8% in 2015.[48]

The proportion of HPW employers varies by employer size band, sector, ownership and whether the employer is single- or multi-site. Larger and multi-site employers are more likely to be HPW, as are employers in the education, health, public administration and financial services sectors.

Employers that adopt HPW practices are more likely to report having a vacancy, having a hard-to-fill vacancy, and having a skills shortage vacancy. This is the case across all size bands (up to employers with 250 employees), and not just a function of larger employers being more likely to be HPW. However, they report that a lower proportion of their vacancies are hard-to-fill.

HPW employers and non-HPW employers report the same proportion of their workforce as having skills gaps (5%).

HPW employers are more likely than average to report that skills gaps have an impact on their businesses (this is largely explained by employer size). However, they are not more likely than average to report a major impact and are also more likely to have taken action in response to skills gaps. HPW are also more likely than average to report having a least one member of under-utilised staff. Again, this pattern holds across size bands.

HPW employers are more active in the labour market, are more likely to identify skills issues, and are more likely to take action to improve employee skills (even when controlling for employer size). Wider evidence[49] suggests that employers that make better use of skills are likely to be more productive. There is a large group of employers who are relatively close to the HPW threshold of 14 practices and could potentially be encouraged to adopt more practices.

[48] There was a change to the ESS questionnaire in 2017, which means the comparable (recalculated) figure for the 2015 survey is 8%
[49] See OECD (2017) Better Use of Skills in the Workplace: Why It Matters for Productivity and Local Jobs

Introduction

Earlier chapters of this report have covered how employers of different sizes and in different sectors have experienced skills issues, and their responses to these (including funding and arranging training). This chapter looks at the extent to which employer behaviour in relation to skills and training can be understood through the types of planning, organising and performance strategies which they use. In particular, it looks at the differences between High Performance Working (HPW) and non-High Performance Working employers, focusing on vacancies, skills gaps and training responses. It covers differences between employers who adopt different types of HPW practices. It also examines skills issues for those employers who adopt between 10 and 13 HPW practices ('Cusp' employers), as well as for private sector, public sector, and single-site employers. It shows that HPW employers, while experiencing more vacancies, have fewer challenges in filling these; and that their understanding of their skills needs informs how they perceived and respond to skills challenges.

High Performance Working

High Performance Working is '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).

As with previous surveys, ESS 2017 included a series of questions on a set of 21 recognised HPW practices, ranging from having a business plan to providing employees with task discretion and autonomy.

The 21 HPW practices can be grouped into five 'factors': planning; organisation; skills; rewards; and autonomy. While the practices are distinct, they can build on and reinforce each other. Table 6.1 details the full list of practices covered in the survey.

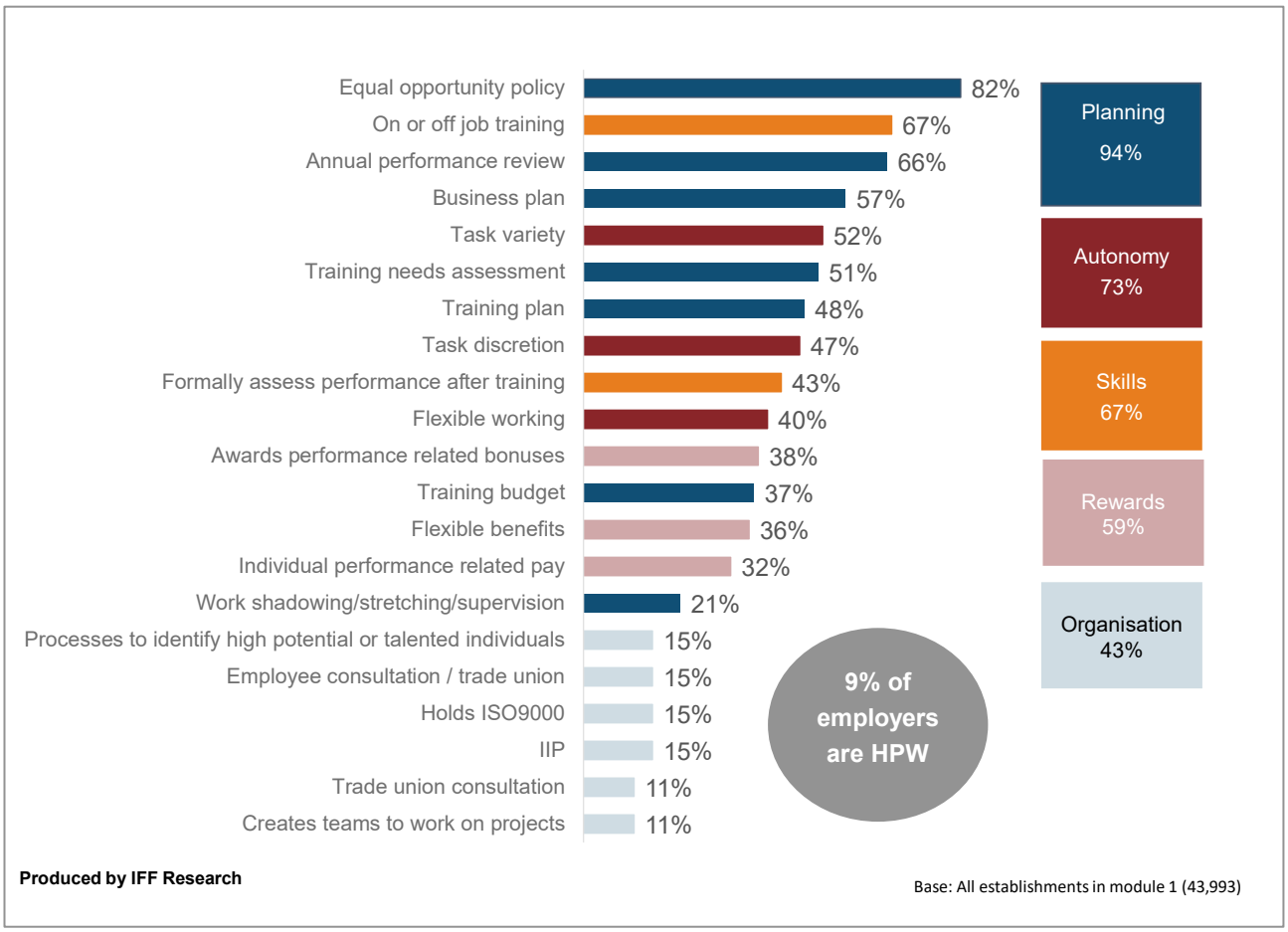
Table 6.1 High Performance Working practices by factor grouping

Factor grouping	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 Creates teams to work on projects 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

High Performance Working practices work as a ‘bundle’. Rather than adopting each practice in isolation, employers may adopt several in order to maximise their impact. For example, employers may write a training plan and identify a training budget (both ‘planning’ practices) so that they can plan ahead and ensure their employees have the skills needed to do their jobs. Employers may also deliberately adopt practices from different factor groupings to support particular business strategies: for example, following employee consultation (an ‘organisation’ practice), they may implement a bonus scheme (a ‘reward’ practice) and flexible working (an ‘autonomy’ practice).

Figure 6.1 shows the proportion of employers adopting each individual practice as well as the proportion of employers that are HPW employers. The most commonly adopted individual practices are: having an equal opportunities policy (82% of employers); providing on- or off-the-job training (67% of employers); and holding annual performance reviews (66%).These are all practices which fall into the ‘planning’ group of practices. The most commonly-adopted practices are from a range of factor groups. However, the least commonly-adopted practices are all from the ‘organisation’ group (trade union consultation and creating teams to work on projects are both adopted by 11% of employers).

Figure 6.1 Proportion of employers adopting each HPW practice



There are differences by sector in terms of the most and least commonly adopted HPW practices. For the five most commonly adopted individual practices, these are relatively minor (for example, for Transport and Storage, having a training plan is in the group of five most commonly-adopted practices). However, in Wholesale and Retail, awarding performance related bonuses is one of the most-commonly adopted practices (used by 49% of sector employers compared 38% overall; see Table A.6.1 in Appendix A).

The most notable differences in the least-commonly adopted practices by sector are for Public Administration, Education and Health and Social Work, which are much less likely to award performance related bonuses (17%, 18% and 22% of sector employers respectively, compared to 38% of all employers). Employers in Education are also less likely than average to offer flexible working (25% compared to an average of 40%). Finally, 25% of Public Administration and 23% of Health and Social Work employers offer individual performance related pay, compared to 32% of all employers. This is likely to reflect the relatively high proportion of public sector employment in these sectors, with set pay scales and limited scope for additional financial compensation.

Overall, 9% of UK employers are regarded as HPW employers; that is, they adopt at least 14 of the 21 practices covered in ESS.[50] There was a slight change to the ESS questionnaire in 2017 which meant that only those employers who did not provide training were asked if they offered opportunities for work shadowing. If this approach is applied to the 2015 data, the proportion of employers who were HPW in 2015 was 8%.

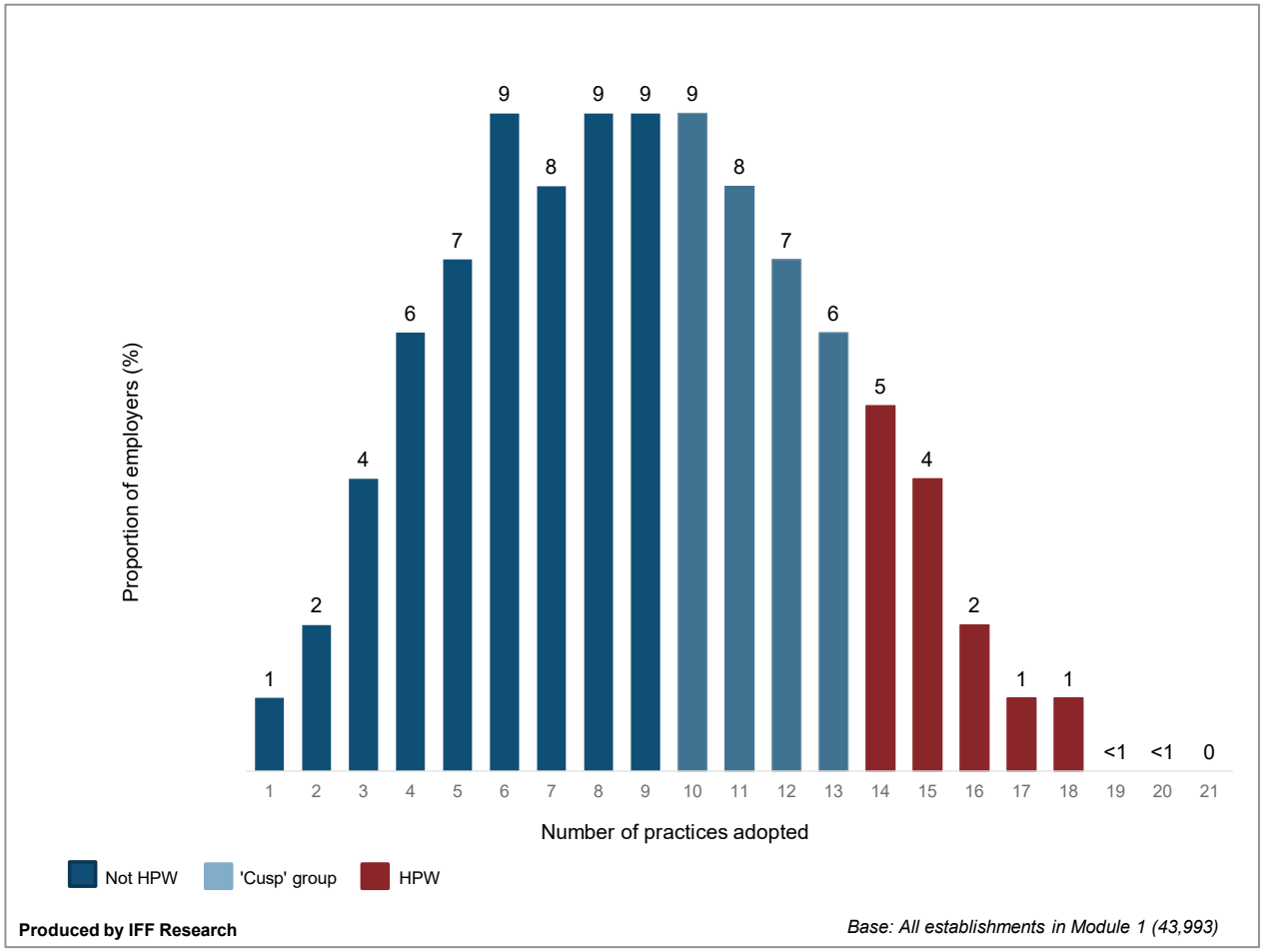
Establishment size and HPW status are strongly linked, with larger establishments more likely to be HPW. For example, while just 2% of all establishments have 100 or more employees, 11% of HPW establishments do; and while 75% of establishments employ fewer than 10 people, only 31% of HPW establishments are in this size band (see Table A.6.2 in Appendix A).

Similarly, multi-site establishments are more likely to be HPW than single-site establishments. While overall, 33% of establishments are part of a multi-site employer, 69% of HPW establishments are multi-site (see Table A.6.3 in Appendix A). This is likely to reflect the fact that small establishments may be part of a much larger chain, and so adopt practices determined by a central management and HR team.

Figure 6.2 shows the proportion of employers adopting different numbers of HPW practices. There is a fairly large group of employers (27% of the total) that have adopted between 10 and 13 HPW practices (HPW 'cusp' employers). Although they are not defined as HPW employers, they are relatively close to the threshold and could potentially be 'nudged' into adopting more practices.

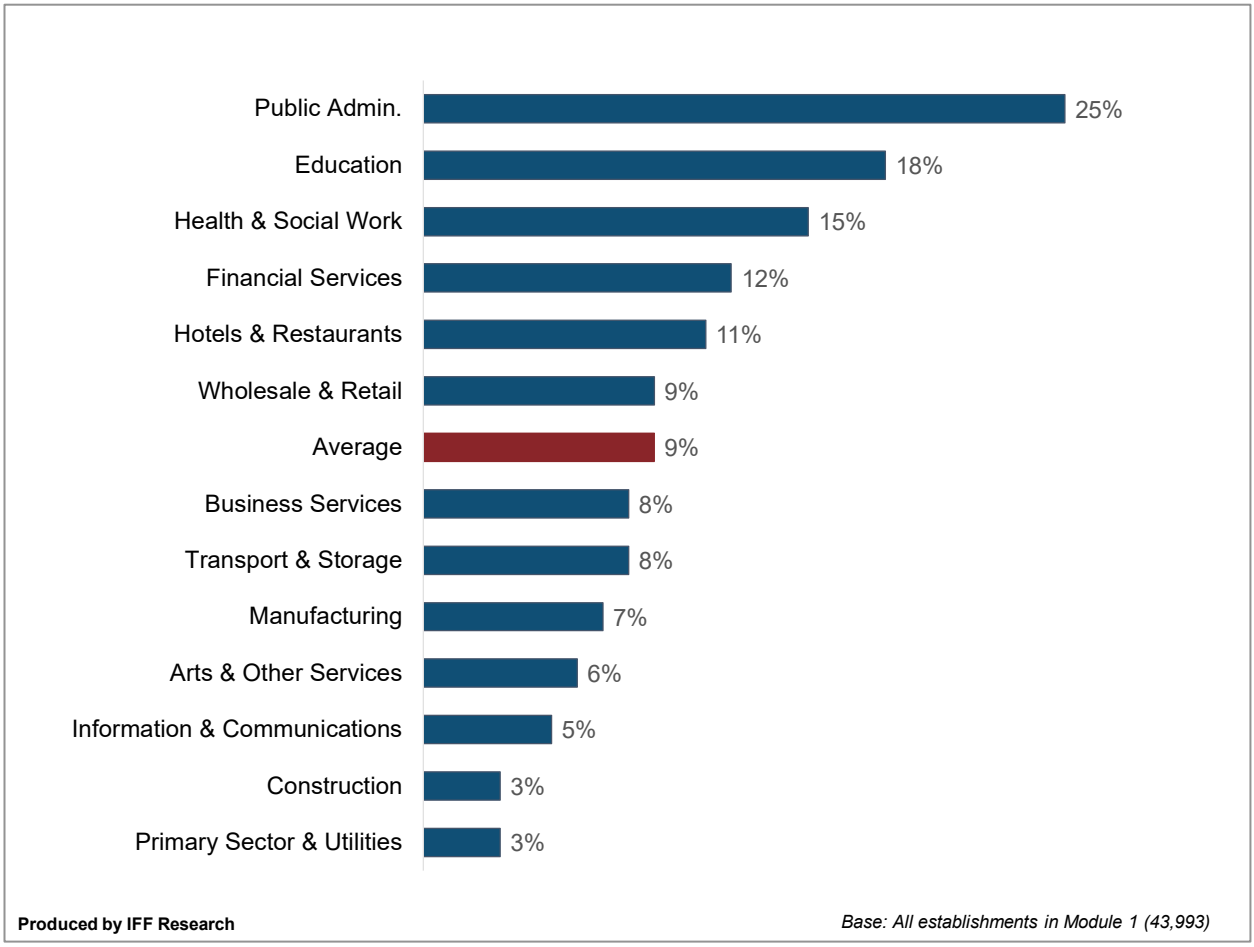
[50] By country the proportion of employers regarded as HPW employers is 9% in England, 8% each in Scotland and Wales, and 6% in Northern Ireland.

Figure 6.2 Number of HPW practices adopted by proportion of employers



HPW adoption varies widely by sector (see Figure 6.3). While 25% of employers in Public Administration and 18% of employers in Education are HPW, this falls to 3% of employers in both Construction and Primary Sector and Utilities. To some extent this may be explained by differences in ownership structures (private or public sector) and establishment size: public sector employers are more likely to be HPW than private sector ones, and larger employers are more likely to be HPW than smaller ones. However, 12% of establishments in Financial Services (where private sector employers are over-represented) are HPW, so the relationship is not necessarily a simple one.

Figure 6.3 HPW employers by sector



Analysis of HPW in private sector employers only shows a similar picture to that for all employers (this is unsurprising, as private sector employers make up 87% of the total). Analysis of single-site employers only and of public sector employers only show slightly more differences from the picture for all employers when it comes to skills issues. These differences will be discussed in the remainder of this chapter where relevant.

Clusters of adoption

There are clusters of relatively high levels of adoption of individual HPW practices in sectors which have relatively high proportions of private sector establishments and small employers. For example, while the proportion of HPW employers in Information and Communications is relatively low at 5%, employers in the sector are more likely than average to have adopted each of the 'autonomy' practices: almost two-thirds of employers in Information and Communications use task variety (63% compared to 52% across all sectors); 63% task discretion (compared to 47%); and 56% flexible working (compared to 40%).

Financial Services has a relatively high proportion of HPW employers (12%), even though the proportion of private sector employers is higher than average (95% compared to 87% overall). The extent to which individual HPW practices are adopted by employers in Financial Services

also differs considerably from the economy-wide picture. Financial Services employers are much more likely to hold annual performance reviews (85% compared to 66% overall); provide training (82% compared to 67%); have a business plan (78% compared to 57%); and to formally assess performance after training (55% compared to 43%). Financial Services employers are also much more likely than average to award performance related bonuses (50% compared to 38% overall); offer flexible benefits (49% compared to 36%); and award individual performance related pay (43% compared to 32%).

The next section looks at variation in the groups of practices adopted by sector.

Employers with at least one HPW practice from a factor group are defined as belonging to that group. Almost all (94%) of employers adopt at least one planning practice, but just 43% adopt at least one organisation practice (see Table 6.2). There is wide variation by sector: in Primary Sector and Utilities, 38% of employers adopt at least one rewards practice, compared to 72% in Financial Services; and 24% adopt at least one organisation practice, compared to 75% in Education. This in part reflects lower overall take up of HPW practices in some sectors, such as Primary Sector and Utilities. However, some sectors have relatively high levels of adoption of HPW practices from one group, but low from another (for example, Information and Communications has high levels of adoption of autonomy practices but low levels of adoption of organisation practices). This suggests that sector culture and employee expectations may play a role in which practices are adopted: if a large proportion of employers in a sector offer performance-based pay, employees and potential recruits may come to expect it as a sector norm.

Table 6.2 HPW 'factor group' take-up by sector (% of employers)

	Planning	Autonomy	Skills	Rewards	Organisation
All employers	**94**	**73**	**67**	**59**	**43**
Primary Sector & Utilities	87	78	53	38	24
Manufacturing	94	67	63	60	48
Construction	87	73	59	49	28
Wholesale & Retail	95	67	62	65	46
Hotels & Restaurants	96	69	66	55	45
Transport & Storage	96	64	64	56	47
Information & Communications	93	85	62	68	30
Financial Services	98	73	82	72	43
Business Services	95	77	68	66	39
Public Admin.	99	82	91	59	73
Education	100	73	92	61	75
Health & Social Work	100	75	89	54	67
Arts & Other Services	95	75	69	52	38

Base: All establishments in Module 1 (43,993)

Shaded cells are those where the % of employers are +/- 10 percentage points from the group average.

The next section considers the relationship between HPW and skills shortages, across all employers and for sub-groups.

The relationship between HPW and skills shortages

HPW employers are much more likely than non-HPW employers to report that they had at least one vacancy (41% compared to 18%; see Figure 6.4). This pattern holds across all size bands up to employers with 250 employees (for example, 48% of HPW employers with 25-49 employees report at least one vacancy, compared to 43% of non-HPW employers in the same size band) (see Table 6.3). Employers in the Cusp group fall between these two figures, with 29% reporting at least one vacancy (see Table A.6.4 in Appendix A).

Figure 6.4 HPW and skills shortages

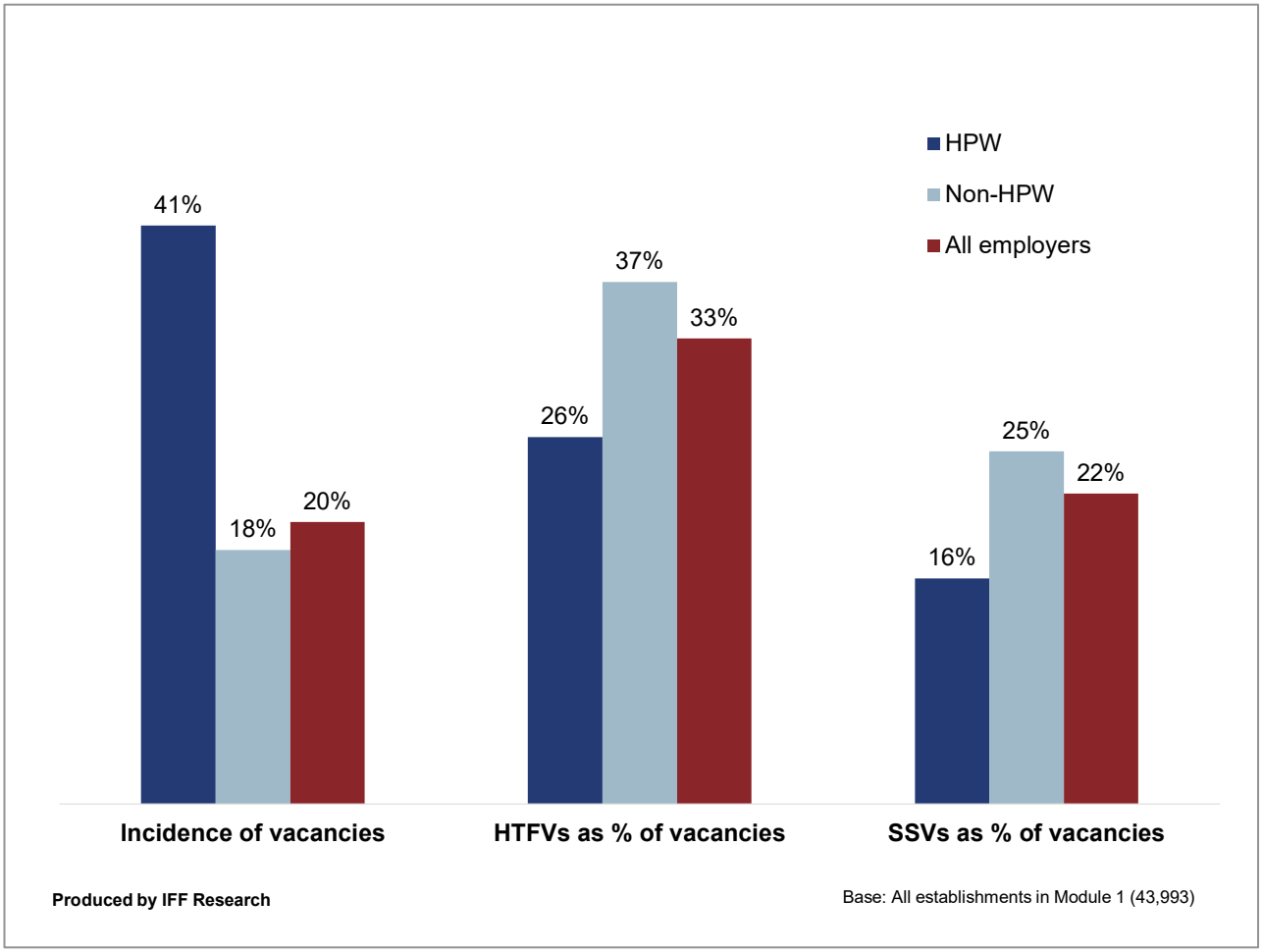


Table 6.3 Incidence of vacancies by HPW status and size band

HPW employers	**2-4**	**5-24**	**25-49**	**50-99**	**100-249**	**250+**
Incidence of vacancies	30%	33%	48%	57%	71%	73%
Incidence of HtFVs	15%	11%	15%	17%	22%	25%
Incidence of SSVs	11%	8%	11%	13%	19%	19%
Non-HPW employers	**2-4**	**5-24**	**25-49**	**50-99**	**100-249**	**250+**
Incidence of vacancies	10%	23%	43%	54%	66%	76%
Incidence of HtFVs	5%	9%	17%	20%	23%	26%
Incidence of SSVs	4%	7%	12%	14%	17%	19%

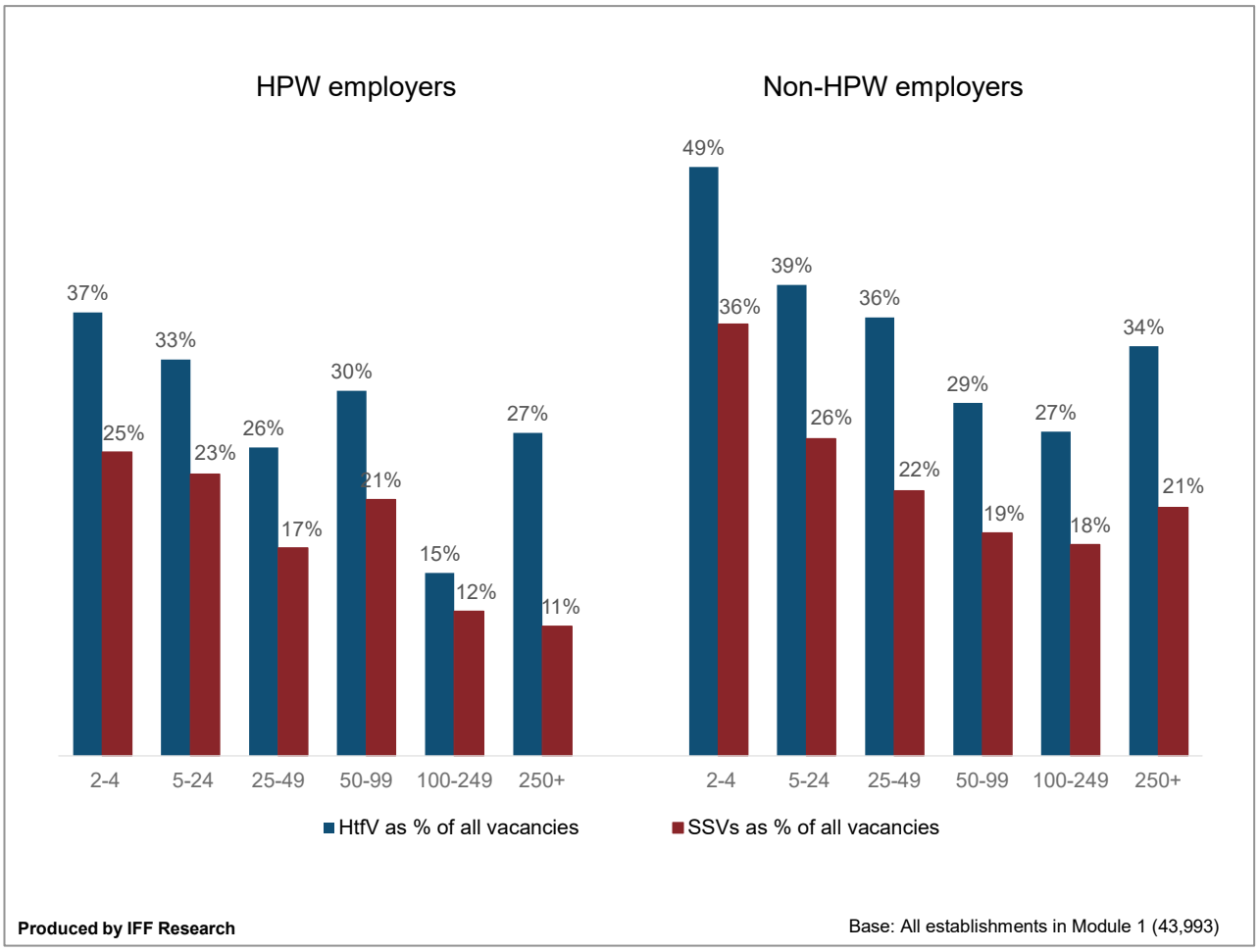
Base: All establishments in Module 1 (43,993)

HPW employers are also more likely to report that they had at least one vacancy that is hard-to-fill (14% compared to 7%), although this pattern varies by size: HPW employers with 25 or more members of staff are less likely than non-HPW employers to report hard to fill vacancies. However, as in 2015, HPW employers' vacancies are less likely to be hard-to-fill (HtF) than non-HPW employers (26% of vacancies compared to 37%). This pattern holds across size bands

(except for 50-99; see). This may reflect that HPW employers are savvier in their approaches to recruitment or have stronger employer brands.

HPW employers are more likely to report skills shortage vacancies (11% compared to 5%), although this pattern is only evident among the smallest employers with fewer than five employees. They also report a lower density of skills shortage vacancies (16% compared to 25% of all vacancies); and this pattern holds true in almost every size band (see Table A.6.5 in Appendix A). This may be because HPW employers are more aware of any mismatches between the skills available and those needed by their business.

Figure 6.5 Density of vacancies by HPW status and size band



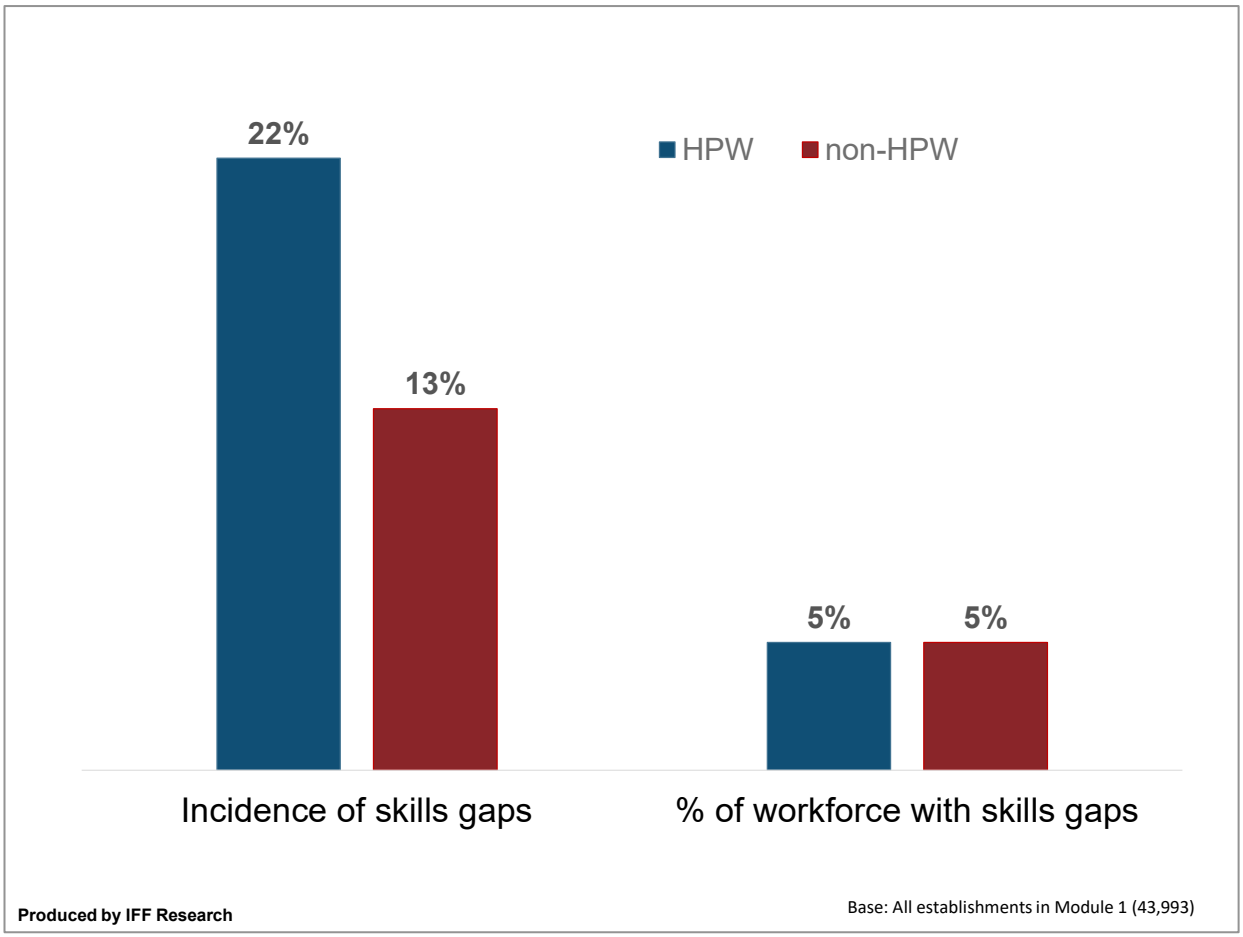
The next section of the report considers skills gaps, and how they vary between groups of employers.

The relationship between HPW and skills gaps

HPW employers are much more likely than non-HPW employers to report skills gaps (22% compared to 13%) (see Figure 6.6). This is largely explained by HPW employers with 250 or more employees being more likely than non-HPW employers in the same size band to report skills gaps (48% compared to 42%). However, in contrast to 2015, the proportion of employees deemed not to be fully proficient in their role is the same across both groups, at 5% (whereas in

2015 a smaller proportion of the workforce in non-HPW employers were reported as not being fully proficient).

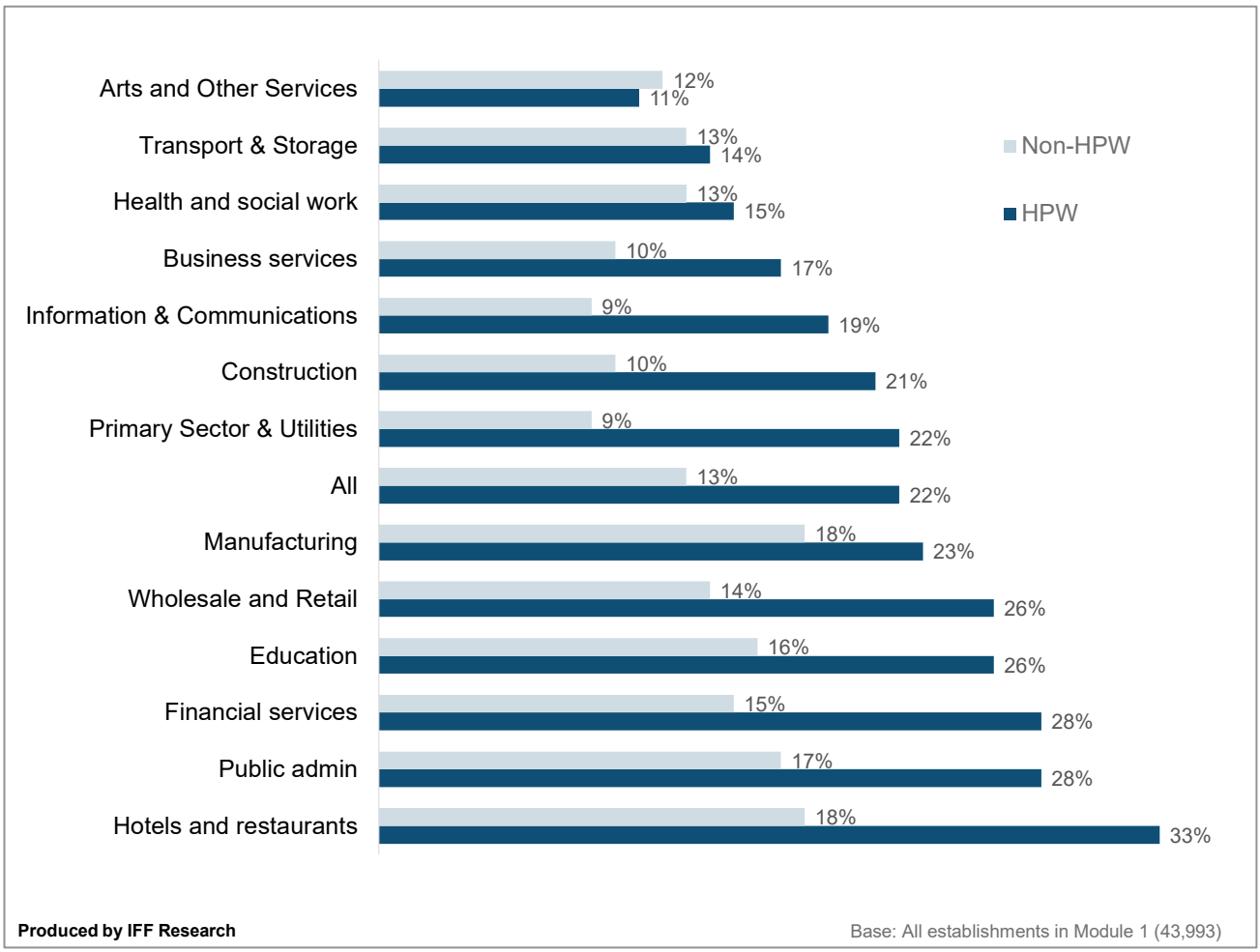
Figure 6.6 HPW and skills gaps



The proportion of HPW Cusp employers reporting skills gaps is 17%, between the proportions for HPW and all non-HPW employers (see Table A.6.4 in Appendix A).

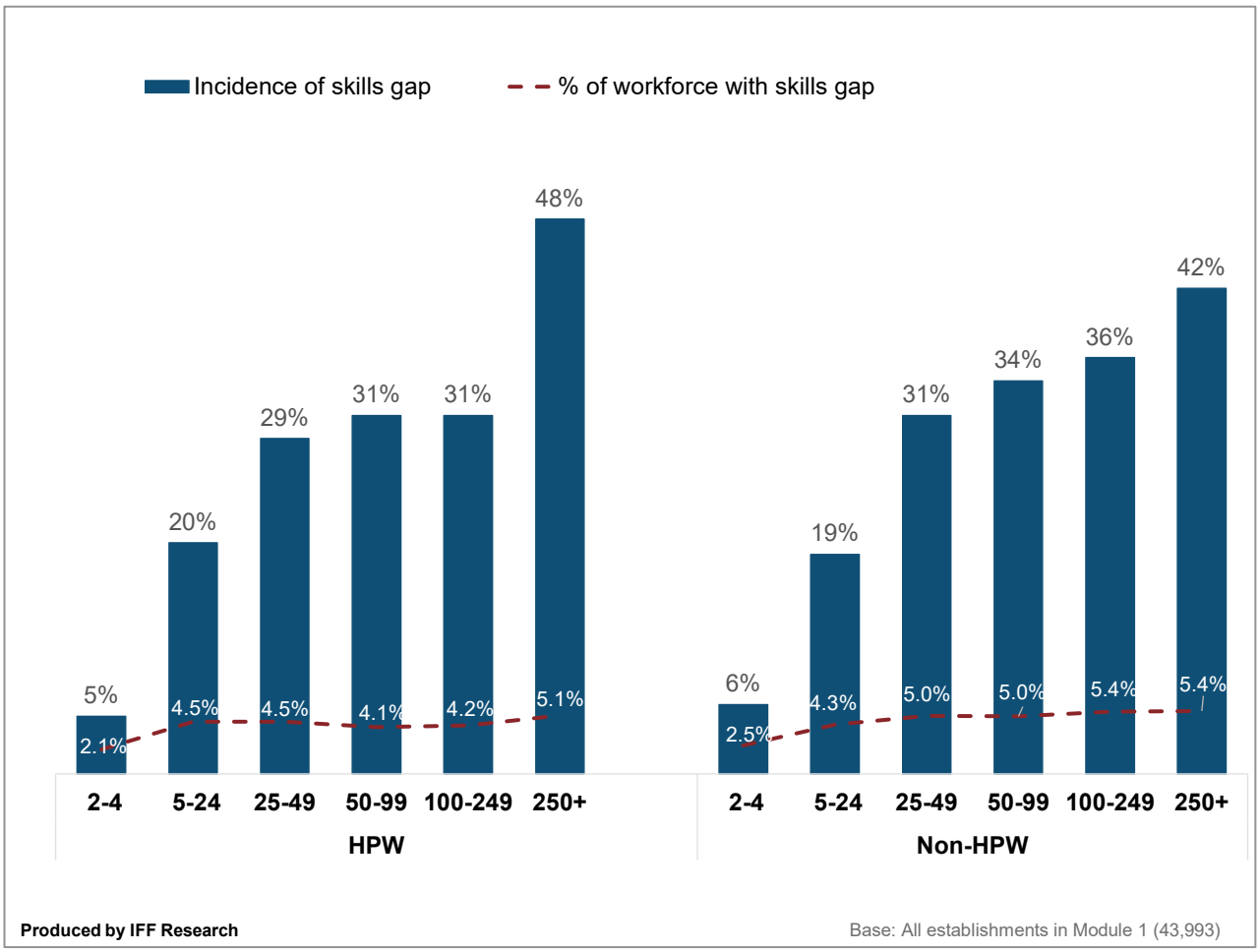
The proportion of employers reporting skills gaps also varies by sector within the HPW and non-HPW groups (Figure 6.7). While in every sector (except for Arts and Other Services) HPW employers are more likely to report at least one employee with a skills gap than non-HPW employers, the percentage point difference ranges from fifteen percentage points for Hotels and Restaurants to one percentage point for Arts and Other Services.

Figure 6.7 Employers reporting skills gaps, by sector and HPW status



The proportion of employers reporting skills gaps varies by size. Larger employers are more likely to report skills gaps than smaller ones (as they have more employees). However, the proportion of staff reported as having skills gaps is relatively similar across all size bands (4% or 5%), except for the smallest employers where it is 2%. This picture holds true regardless of HPW classification (see Figure 6.8).

Figure 6.8 Incidence and density of skills gaps, by size and HPW status



Impact of and responses to skills gaps

Of employers with skill gaps, HPW employers are more likely than average to report that skills gaps have an impact on their businesses (72% compared to 66% of all employers). However, they are not more likely than average to report that skills gaps have a major impact on their business (17% of employers for both groups).

The proportion of employers reporting that skills gaps had an impact on their business varies by sector (and, within that, by HPW status; see Table 6.3). The only two sectors where HPW employers are more likely than non-HPW employers to report that skills gaps had an impact on their business are Financial Services (62% compared to 66%), and Arts and Other Services (61% compared to 66%). HPW employers in Information and Communications are most likely to say skills gaps had a major impact on their business (30% did so).

Table 6.3 Impact of skills gaps by sector and HPW status (% of employers)

	HPW			Not HPW		
	Major impact	Minor impact	Any impact	Major impact	Minor impact	Any impact
Primary Sector and Utilities	18	52	70	21	47	68
Manufacturing	12	65	77	19	51	70
Construction	18	45	63	16	39	55
Wholesale and Retail	19	49	69	16	52	67
Hotels and Restaurants	21	53	74	23	52	74
Transport and Storage	16	51	67	18	48	66
Information and Communications	30	47	77	20	45	65
Financial Services	9	53	62	17	48	66
Business Services	15	64	79	17	48	64
Public Admin.	9	64	73	23	41	64
Education	13	51	64	11	53	64
Health and Social Work	16	58	74	14	44	58
Arts and Other Services	17	44	61	13	53	66

Base: all establishments in Module 1 with skills gaps (18,021)

HPW public sector employers are more likely than HPW private sector employers to report skills gap impacts (77% compared to 71%; see Table 6.4). However, HPW private sector employers are more likely to report major skills gaps impacts (18% compared to 13% of HPW public sector employers). The next section looks at the types of impact skills gaps have.

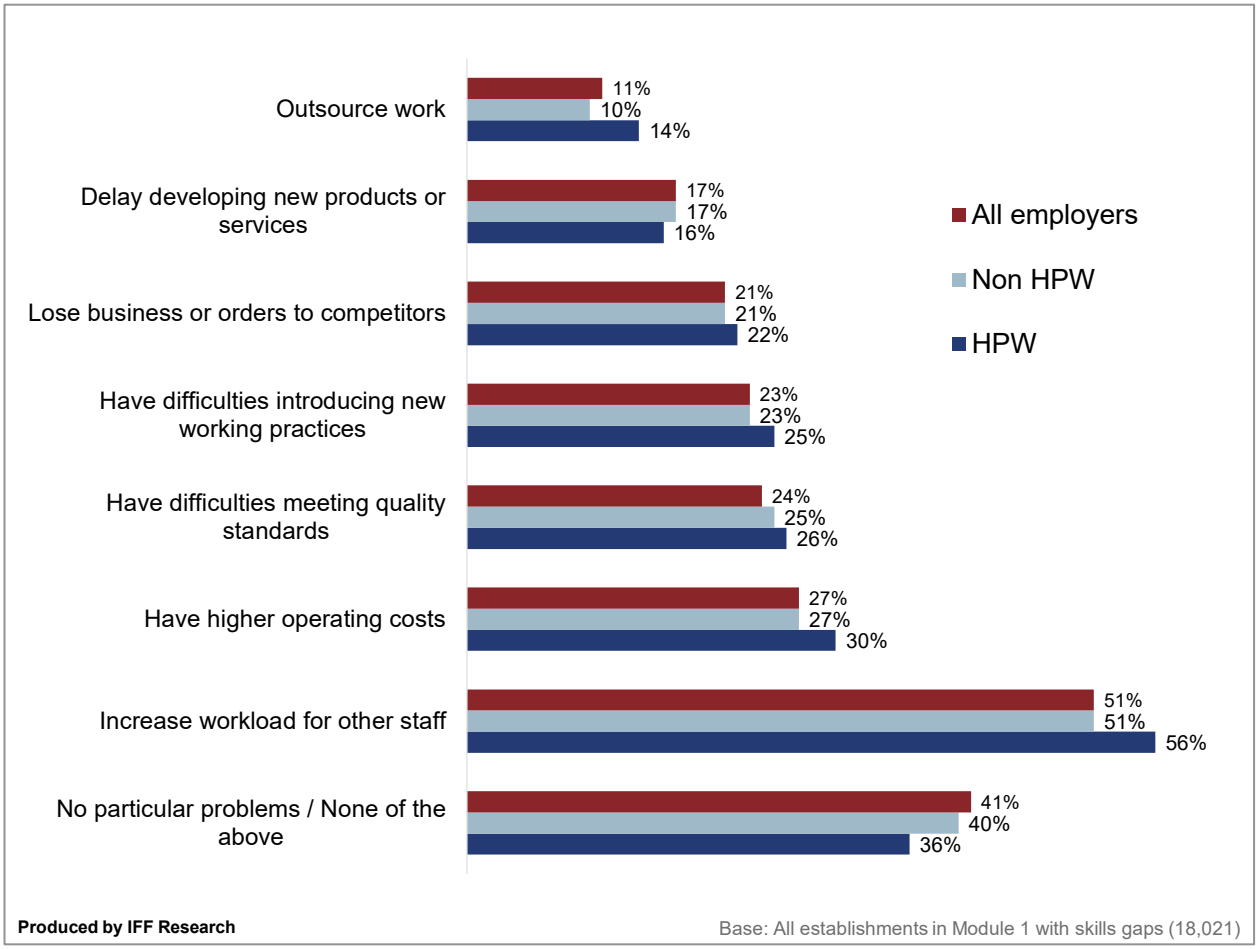
Table 6.4 Impact of skills gaps in public and private sectors (% of employers)

	Private sector		Public sector	
	HPW	not HPW	HPW	not HPW
Major skills gap impact	18	18	13	14
Minor skills gap impact	54	48	64	50
Any skills gap impact	71	66	77	64

Base: all establishments in Module 1 with skills gaps (18,021)

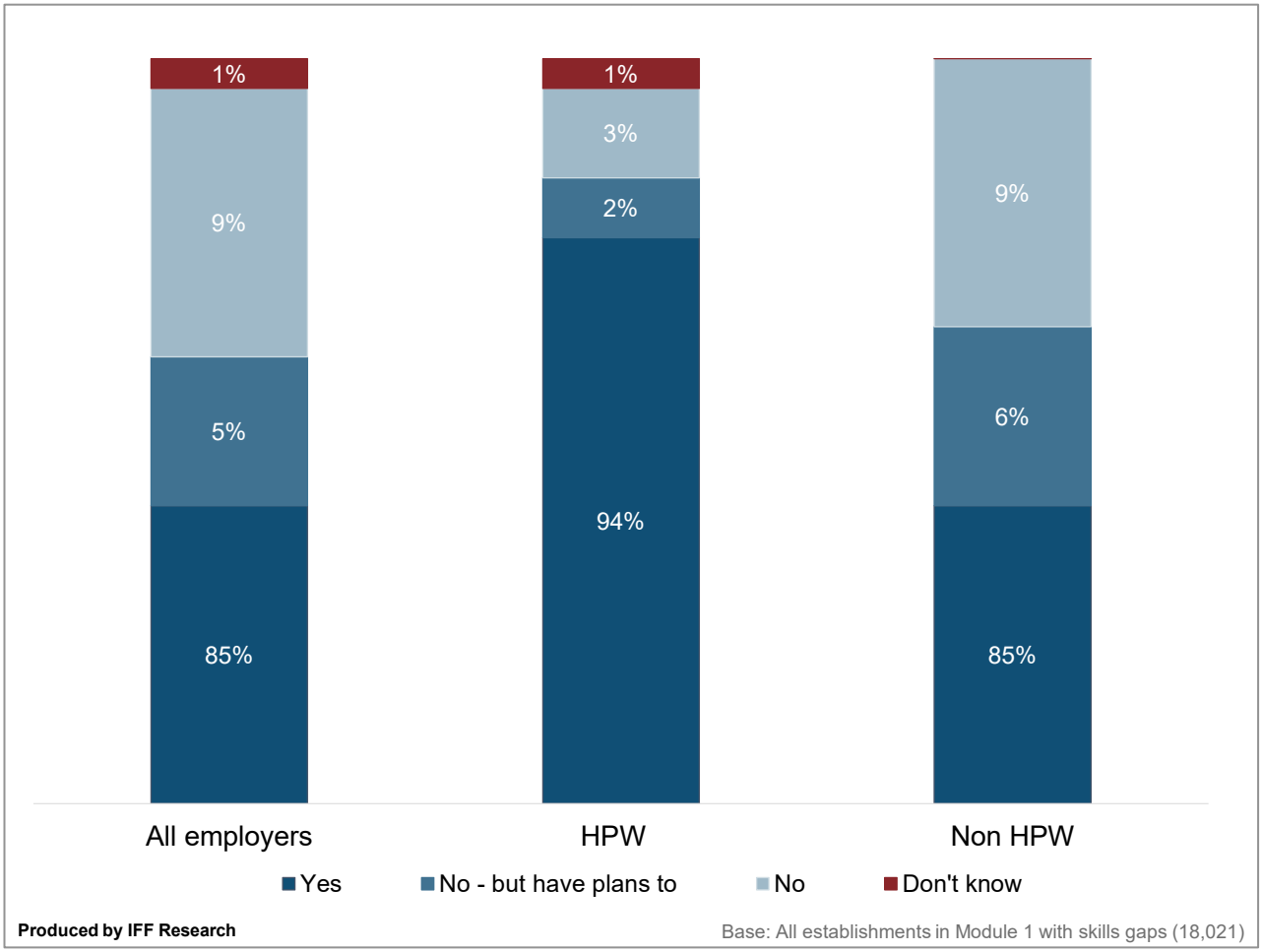
The most commonly-reported impacts of skills gaps across all employers are to increase workload for other staff (reported by 56% of HPW employers and 51% of non-HPW employers), and higher operating costs (reported by 30% and 27% respectively; see Figure 6.9). The ranking of different types of impact is identical across the three groups (all employers, HPW employers, and non-HPW employers). However, a higher proportion of HPW employers than non-HPW employers report each type of impact (except for delays in developing new products and services, reported by 16% of HPW and 17% of non-HPW employers).

Figure 6.9 Impact of skills gaps by HPW status



The majority of employers across all groups report that they had taken steps to improve the proficiency of staff with skills gaps. The proportion ranges from 94% of HPW employers to 85% of non-HPW employers. Across all size bands, HPW employers are more likely to have taken steps in response to skills gaps than non HPW employers.

Figure 6.10 Responses to skills gaps by HPW status



In general, HPW and non-HPW employers employ similar responses to skills gaps (see Table 6.5). For both groups, the most likely response is to increase training activity or spend, or increase or expand trainee programmes (81% of HPW employers and 66% of non-HPW employers). HPW employers are more likely to use each of the individual responses than non-HPW employers. The largest differences in percentage point terms are for implementing mentoring/buddying schemes (66% compared to 42%) and holding more staff appraisal or performance reviews (65% compared to 43%).

Table 6.5 Responses to skills gaps by HPW status (% of employers)

	All employers	HPW	Not HPW
Increase training activity / spend or increase/expand trainee programmes	67	81	66
More supervision of staff	54	65	55
More staff appraisals / performance reviews	45	65	43
Implementation of mentoring / buddying scheme	44	66	42
Reallocating work	35	46	35
Changing working practices	27	36	26
Increase recruitment activity / spend	21	33	19
Recruiting workers who are non-UK nationals	10	17	9
Other	2	2	2

Base: all establishments in Module 1 with skills gaps (18,021)

HPW and skills utilisation

While 35% of all employers report having at least one member of underutilised staff (those that have both qualifications and skills that are more advanced than required for their current job role), this rises to 44% for HPW employers (and is 34% for non-HPW employers). The pattern is consistent across size bands, suggesting the differences are not a function of employer size.

Table 6.7: Proportion of employers reporting at least one member of under-utilised staff

	2-4	5-24	25-49	50-99	100-249	250+
HPW employers	44%	44%	45%	45%	41%	41%
Non-HPW employers	34%	33%	36%	34%	34%	33%

Base: All establishments in Module 1 (43,993)

The relationship between HPW and training

There is a clear relationship between HPW status and training, as well as training to formal qualifications. HPW establishments are much more likely to have funded or arranged training for staff over the past 12 months (96% of HPW establishments did so, compared to 64% of non-HPW establishments). This pattern holds true across all size bands (see Table A.6.6 in

Appendix A), suggesting that the difference is not wholly due to employer size (although the differences are proportionately larger for the smallest employers).

Training is a HPW practice, so this pattern is perhaps unsurprising. However, HPW employers are also more likely to train to qualifications (63% of those HPW employers providing training, compared to 43% of those non-HPW employers providing training). This pattern holds for all employers except the largest (those with 250 or more employees). HPW employers are more likely to train employees to Level 3 or 4 (43% of those providing training, compared to 24% of non-HPW employers providing training), and again this pattern is evident across all size bands. The proportion of employees in scope for training also differs: HPW establishments train 73% of employees, compared to 58% of employees for non-HPW establishments (although the percentage point difference is largest for very small employers and falls with each increase in size band).

In addition, HPW employers are more likely to have recruited in the 12 months prior to the survey (the difference is driven largely by HPW employers in the smaller sizebands, with fewer than 25 employees, being more likely to have recruited). As staff being new in role is one of the main reasons for requiring training, this may explain some of the difference in training behaviour between the two groups of employers.

Increasing the take-up of HPW

Wider evidence suggests that HPW employers help employers make better use of workforce skills, with benefits for individuals, employers and the wider economy. Individuals are more likely to feel engaged with their work if they have the opportunity to deploy their skills, and it they feel that their voice is listened to (including through employee or trade union consultation). Better use of skills and more effective work organisation is linked to better workplace relations and higher productivity. The OECD calculate that small productivity improvements in individual businesses could result in macro-level productivity increases of between 3% and 10%.[51]

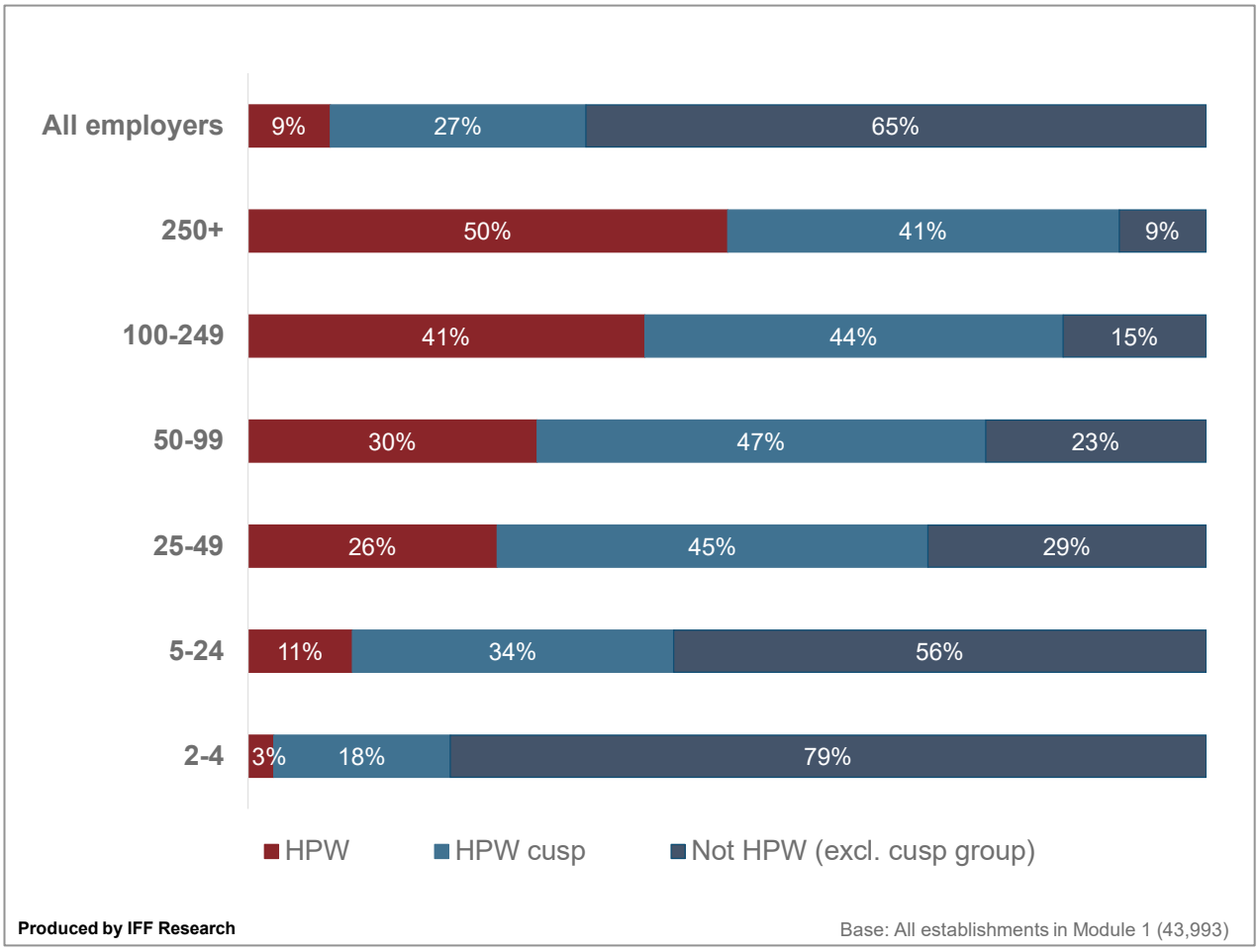
The group of HPW Cusp employers are those that have adopted between 10 and 13 HPW practices (see Figure 6.2 earlier in the chapter). They are a potential target audience for raising the take-up of HPW practices, and encouraging employers to think about their skills needs and responses in a more strategic way.

As shown in Figure 6.11, the proportion of non-HPW employers that are part of the Cusp group tends to increase with size. However, the proportion of employers in the Cusp group that have 250 or more employees is 41%, compared to 44% for those with between 100 and 249

[51] OECD/ILO (2017), *Better Use of Skills in the Workplace: Why It Matters for Productivity and Local Jobs*, OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264281394-en

employees. This may reflect the fact that half (50%) of employers in the former group are HPW, so there is less room to expand take-up of HPW in this group. The size band with the highest proportion of HPW cusp employers is those employers with 50-99 employees. Increasing the take-up of HPW practices in this group could support medium-sized employers to plan ahead for meeting skills needs, and become more responsive to the skills challenges they face.

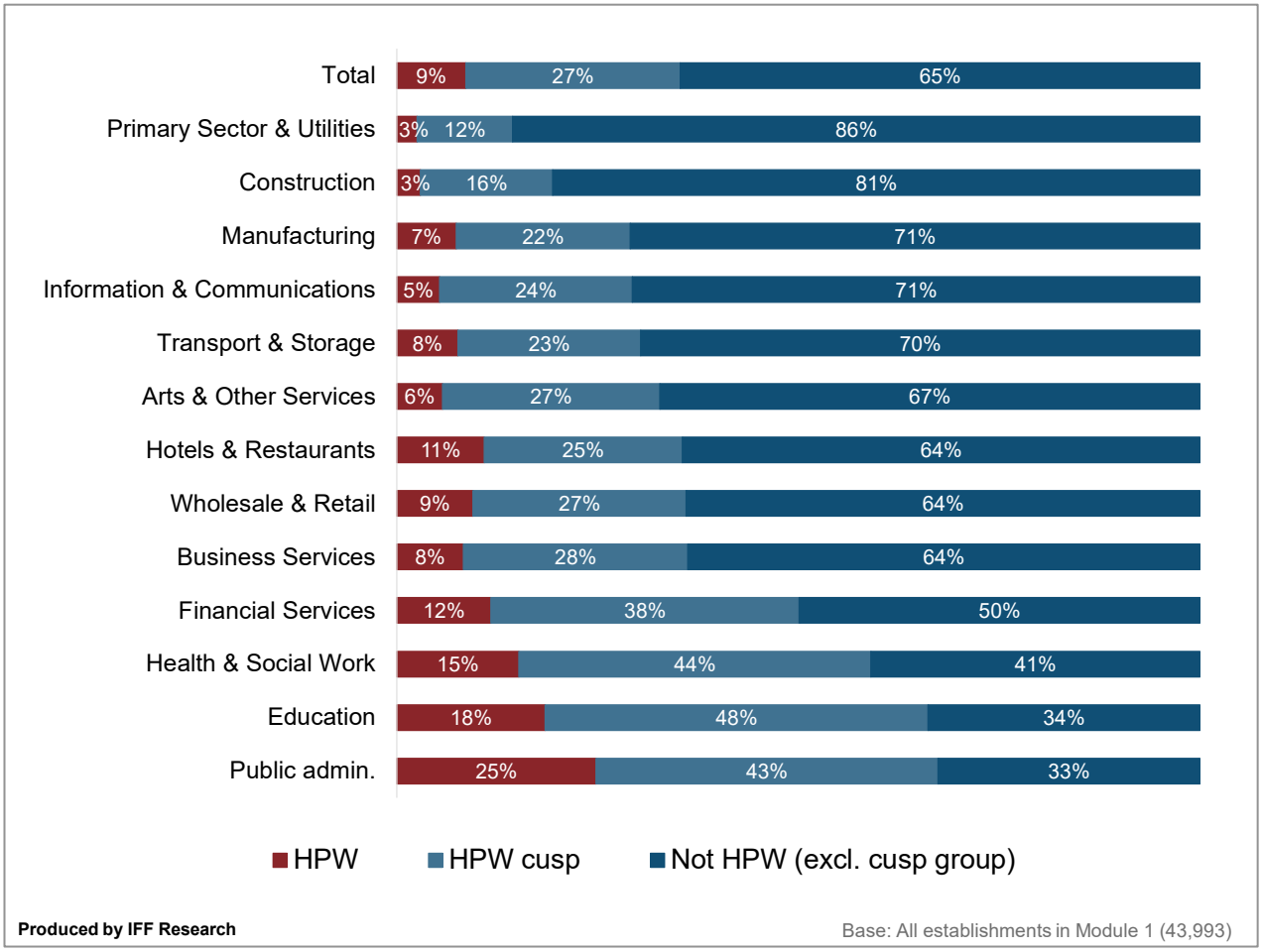
Figure 6.11 HPW, HPW Cusp and non-HPW employers by size



The proportion of employers in the HPW Cusp group ranges from 43% in Public Administration to 12% in Primary Sector and Utilities (see Figure 6.12). Sectors with mid-low levels of HPW employers but reasonably large proportions of HPW Cusp employers include Wholesale and Retail, and Hotels and Restaurants. These might be appropriate target sectors in which to promote HPW practices.

Employers could be encouraged in the first instance to adopt those practices which are free or relatively low-cost to implement, yet provide them with a better understanding of their skills needs and workforce; as well as those which enable employees to provide their views as well as suggestions for improving the business. Such practices include developing a training plan; carrying out a training needs assessment; and setting up mechanisms for employee consultation. Employers could also be encouraged to explore a range of approaches to training and skills development, including training on-the-job, workshops led by more experienced staff, and action learning groups.

Figure 6.12 HPW, HPW Cusp and non-HPW employers by sector



Chapter conclusions

The adoption of HPW working practices varies by sector and employer size, and HPW and non-HPW employers have different experiences of vacancies, skills gaps and training responses. However, while differences in employer size patterns between HPW and non-HPW employers explain much of the differences around skills gaps, and some of the differences around training behaviour, they do not fully explain them.

HPW employers are also more likely to take action (including mentoring and changing working practices) than non-HPW employers, across all employer size bands. It is likely, therefore, that they are better at recognising factors that limit their productivity or the quality of service they provide; and are better employers in terms of equipping staff with the skills they need to do their jobs well.

Promoting HPW could be a means to improving UK productivity, particularly within small- and medium-sized businesses. One approach could be to target this promotion at those businesses which are currently within the HPW ‘Cusp’ group. They are fairly close to being HPW employers and as adopters of several HPW practices already, might be receptive to implementing additional ones in order to benefit their businesses.

7. Conclusions

The 2017 Employer Skills Survey (ESS) is the fourth in the biennial series conducted since 2011 and continues to provide a comprehensive source of intelligence on the skills challenges that UK employers face both within their existing workforces and when recruiting.

Since the last ESS we have continued to see economic growth and job creation. The overall employment rate (75.1%) is close to record levels, and unemployment at its lowest rate since the 1970's. This employment growth has been the main driver behind GDP growth in recent years, with gains in economic growth from improved productivity lagging far behind.

The UK continues to have a long-standing productivity gap relative to international competitors - this gap pre-dates the 2008 recession, and indeed has widened further. If productivity gains can be unlocked, and workers produce more for the same number of hours, the whole UK will benefit from increased growth, rising wages and lower prices. The drivers of productivity are many and varied but improving UK skills has been identified as a key priority for unlocking the UK's future potential.[52]

Although wider economic indicators currently point towards a healthy economy, employers are operating in an uncertain environment with the UK's withdrawal from the European Union on the horizon. The arrangements for trade and availability of labour from the EU are not yet clear.

The latest ESS report provides an important body of evidence at this key juncture. Through assessing skills challenges and understanding how they are impacting on business at the UK level, locally and sectorally, the survey allows a consideration of how prepared UK employers are for the years ahead.

We identify four skills challenges that could constrain the UK from realising its full economic potential over the coming years:

[52] https://www.gov.uk/government/publications/autumn-budget-2017-documents/autumn-budget-2017#economy-and-public-finances

Skills challenge 1: finding the right workers

Employers' access to the right workers for their vacancies is important for economic growth. However, recruitment will naturally become more difficult as the economy grows and employment rates increase. Whether employers have vacancies because they are growing, or because they are replacing the loss of personnel, when employers fail to recruit it is likely to impact on their ability to both satisfy existing work as well as grow. Where employers reported in the survey that they cannot find workers with the right skills, they cite increased workloads for other staff, a loss of business to competitors, and delays in the development of new products and services.

Unsurprisingly given the economic backdrop, the level of recruitment activity reported by employers has *increased* since 2015 by 9%, with one in five employers (20%) having vacancies at the time of fieldwork. So are employers struggling to find the right workers?

The recruitment challenges reported by employers remain broadly the same. In line with previous years, a third of vacancies (33%) were hard to fill. Skills shortage-vacancies, where applicants are lacking the skills, qualifications, or experience required by employers, increased in volume by 8%, but this broadly mirrored the increase in vacancies. As a result - and perhaps contrary to expectations in the current context given lower unemployment rates and indications

of lower net migration[53] − the density of skill-shortage vacancies remained unchanged from 2015. Overall 22% of vacancies were hard to fill because applicants lacked the right skills.

Underneath the headline UK picture, wide variations in skills shortage vacancies exist by sector, occupation and locality. For example, whilst employers in Birmingham reported struggling to fill 32.7% of their vacancies dues to skills shortages, only 4.7% of vacancies in Leeds were skills shortage vacancies. These differences highlight the need for locally targeted solutions and an understanding of local skills requirements, which is the aim of the new local Skills Advisory Panels announced in the UK government's 'Industrial Strategy: Building a Britain fit for the future'.

Further, little improvement has been made in the sectors and occupations that have proved to have persistent concentrations of skills shortages over time. Construction for example continues to report acute recruitment issues, with 36% of vacancies proving hard to fill due to a lack of available skills. Similarly, Skilled Trades occupations continue to have the highest density of skills shortage vacancies. We know however from the 2016 UK Employer Perspectives Survey that the pipeline of talent into businesses and entry routes into employment could be improved, employers are limiting the number and range of recruitment channels they use, with word of mouth still dominating.

Recent policy reforms, including the technical education reforms in England, apprenticeship policy across the nations, and the new national retraining fund in England focusing on Construction should help to address these shortages. However, in the context of uncertainty over future labour supply from the EU, and overall training levels remaining static over recent years (see below), questions remain over whether skills shortage vacancies will act as a brake on growth and productivity. Employers therefore have an important role to play, both in terms of ensuring their jobs remain competitive (e.g. through pay, and conditions etc.) as well as developing a pipeline of talent through improved recruitment practices, training, apprenticeships, and offering work experience and placements.

Skills challenge 2: optimising and improving existing skills

A deficiency of skills in the labour market can appear not only through recruitment challenges, but also through skills gaps within the existing workforce. A job may be filled by an employee who lacks all the skills required. This can be for a range of reasons - some persistent and problematic, others more temporary or associated with healthy business change and innovation.

Regardless of the causes of skill gaps, they can have a major impact, particularly where persistent, including: increasing workloads for existing staff, higher operating costs, difficulties

[53] ONS Migration Statistics Bulletin, 2017.

meeting quality standards, introducing new working practices, and a loss of business to competitors.

The overall picture for 2017 is one of skills gaps continuing to fall among existing employees. While on the one hand this may be viewed as a positive trend with fewer employees operating below the proficiency required, some skills gaps result in employers pursuing more ambitious business strategies. As in previous years, the majority of skills gaps continue to be transient (e.g. training has been started but not completed), however there has been a fall in other factors. In particular, there have been falls in the proportion of skills gaps caused by more transformational factors such as introducing new products and services, introducing new technology, and introducing new working practices.

Alongside this downward trend in skills gaps, the proportion of employers reporting under-use of their employees' skills and qualifications has risen. Coupled with this, employers' projected upskilling requirements are reducing. Employers were asked whether they anticipated their staff would need to acquire *new* skills over the next 12 months. Overall, the proportion of employers anticipating they would need to upskill their staff fell 10 percentage points from 72% in 2013 to 62% in 2017.

It may be that employers are finding it more difficult to anticipate their upskilling requirements in the current context of uncertainty, or more broadly that fewer businesses are planning changes for the future. Rising levels of under-utilisation among employees also suggests there is latent potential among a pool of skilled labour that could perhaps be drawn upon by employers in the future.

While the proportion of vacancies proving difficult to fill due to skills shortages is currently no worse than two years ago, the survey found rising hard-to-fill vacancies for non-related skills reasons. Employers may find they need to look increasingly to upskilling and optimising the skills of the staff they have, rather than relying on recruitment if they are to be fit for the future.

Skills challenge 3: expanding employee training

Key challenges have been identified around tackling skills shortages and skills gaps, as well as the need for more employers who are ambitious and will better optimise the skills of their staff. Training for staff is crucial in enabling employers to address these issues, allowing them to develop their workforce and to increase productivity. Employer-provided training will also take on new significance if there is less recruitment of EU nationals.

This backdrop points to the need for employers to step-up employee training, and a range of recent policy initiatives have been introduced to support employers to meet this challenge. A significant policy change has been the introduction of the apprenticeship levy. The government intends this change to increase apprenticeship starts. But some anticipate a risk that it will

substitute apprenticeships for other forms of training and skill development.[54] Another key policy is the announcement in the Industrial Strategy of a new national retraining scheme in England, which will aim to "drive up adult learning and retraining".

It is however too soon to see the impact of these new policies on the training landscape and the relationship to employers' skills challenges. So what are current employers doing in relation to training?

Overall, the training landscape remains largely consistent with previous years and follows the story seen in the previous two iterations of ESS, the same proportion of employers provide training for their staff (66%), and the proportion of staff trained remains unchanged (62%). However, there are indications that the volume and quality of training may not be being maintained.

Each staff member trained is receiving fewer days training on average compared to 2015, falling from 6.8 to 6.4 days on average. There has also been a fall in both the proportion of staff being trained to a national recognised qualification (45%, down from 47% in 2015), and the number of employees being trained to a nationally recognised qualification (3.2 million, down from 3.5 million). At the same time, the proportion of employers where all or at least half of training is induction or health and safety has increased again, and the use of online training and e-learning has increased across all countries and sectors, now being offered by half of all employers (51%, up from 45% in 2015). In real terms (i.e. adjusted for inflation), there has been a fall in investment in training per employee, from £1,570 in 2015 to £1,530 in 2017.

At a superficial level, it is positive that the proportion of employers training, and the proportion of employees being trained, has held steady rather than declining during a time of peak employment growth. But it is concerning that the volume of training and training spend per employee has reduced. With some persistent pockets of reported skills shortage, employers' aspirations to upskill their staff falling, and measures of training quantity (and potentially quality) abating, important questions remain over whether the UK's employers are ready to raise their game and improve productivity through tackling existing skills challenges.

Skills challenge 4: improving work place practices to drive performance

The final skills challenge facing UK's employers is improving the work place practices deployed by employers. In particular, promoting High Performance Working Practices (HPWPs) could be used as a means to improving UK productivity, particularly within small- and medium-sized businesses. High Performance Working is 'a general approach to managing organisations that

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54 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/562445/The_apprenticeship_levy_how_will_employers_respond.pdf

aims to stimulate more effective employee involvement and commitment in order to achieve high levels of performance' (Belt and Giles, 2010).

This year's survey identifies that, as with many other indicators on the survey, the proportion of employers adopting HPWPs appears to have stagnated over time. HPW employers (those who adopt at least 14 of 21 practices) are more likely to be active in the labour market through recruitment. They are more likely to experience vacancies, hard- to-fill vacancies and skills shortage vacancies than non-HPW employers. These differences are apparently across all size bands, and so are not just a function of difference employer size profiles. However, a lower proportion of their HPW employers' vacancies are hard-to-fill, perhaps because they understand the skills available to them when recruiting and are also more willing to provide training.

HPW employers are more likely to train staff, more likely to train to qualifications, and more likely to train to higher levels than non-HPW employers. This pattern holds true across all size bands, suggesting that the difference is not wholly due to employer size (although the differences are proportionately larger for the smallest employers). They are also more likely to take action (including mentoring and changing working practices) than non-HPW employers. It is likely, therefore, that they are better at recognising factors that limit their productivity or the quality of service they provide; and are better employers in terms of equipping staff with the skills they need to do their jobs well.

One approach could be to consider how to support or nudge businesses who are on the cusp of being HPW employers to further raise their game and adopt additional workplace practices that would benefit their businesses. These employers may be more receptive to altering their workplace practices than the large proportion of employers who deploy few or no HPWPs.

Appendix A: Supplementary tables

Chapter 1: Introduction

Table A.1.1 Unweighted base sizes (i.e. number of completed interviews) for all establishments, by country, size and sector (2011 – 2017)

	2011	2013	2015	2017
UK	86,522	91,279	91,210	87,430
Country				
England	74,156	75,255	75,129	71,527
Northern Ireland	3,921	4,014	4,019	3,973
Scotland	2,487	6,014	6,035	6,017
Wales	5,958	5,996	6,027	5,913
Size				
2 to 4	17,905	19,058	20,527	17,132
5 to 24	47,770	51,565	49,584	46,936
25 to 49	10,239	10,947	11,657	12,526
50 to 99	5,712	5,584	5,836	6,456
100-249	3,270	2,938	2,689	3,302
250+	1,626	1,187	917	1,078
Sector				
Primary Sector & Utilities	2,512	4,693	4,844	4,905
Manufacturing	7,653	7,422	6,827	6,578
Construction	6,656	7,202	7,474	6,846
Wholesale & Retail	15,163	17,287	16,126	14,514
Hotels & Restaurants	8,421	8,888	8,920	8,478
Transport & Storage	4,685	4,182	4,680	4,075
Information & Communications	3,125	2,708	4,256	3,976
Financial Services	1,853	2,330	2,549	2,678
Business Services	14,297	14,011	13,143	13,713
Public Admin.	1,584	942	947	1,162
Education	5,422	5,796	5,515	5,525
Health & Social Work	8,067	8,460	8,556	7,952
Arts & Other Services	7,164	7,358	7,373	7,028

Source: Employer Skills Survey (2017)

Table A.1.2 Unweighted base sizes (i.e. number of completed interviews) for English establishments, by region, size and sector

	2011	2013	2015	2017
England	74,156	75,255	75,129	71,527
Size				
2 to 4	15,457	14,875	16,346	13,371
5 to 24	41,136	42,696	41,013	38,447
25 to 49	8,760	9,259	9,860	10,571
50 to 99	4,790	4,699	4,882	5,461
100-249	2,691	2,463	2,263	2,757
250+	1,322	990	765	920
Sector				
Primary Sector & Utilities	1,987	3,285	3,649	3,761
Manufacturing	6,667	6,302	5,703	5,498
Construction	5,485	5,980	6,334	5,622
Wholesale & Retail	13,060	14,321	13,126	11,841
Hotels & Restaurants	7,202	7,314	7,274	6,917
Transport & Storage	4,041	3,419	3,797	3,317
Information & Communications	2,820	2,324	3,741	3,436
Financial Services	1,452	1,886	2,121	2,195
Business Services	12,656	12,000	11,158	15,582
Public Admin.	1,214	696	721	859
Education	4,582	4,756	4,549	4,516
Health & Social Work	6,872	6,882	6,963	6,315
Arts & Other Services	6,118	6,090	5,993	5,668

Source: Employer Skills Survey (2017)

Table A.1.3 Unweighted base sizes (i.e. number of completed interviews) for Northern Irish establishments, by size and sector

	2011	2013	2015	2017
Northern Ireland	4,004	4,014	4,019	3,937
Size				
2 to 4	989	1,227	1,168	1,097
5 to 24	2,265	2,189	2,236	2,182
25 to 49	327	307	321	368
50 to 99	185	167	191	220
100-249	105	83	72	88
250+	50	41	31	18
Sector				
Primary Sector & Utilities	101	193	122	188
Manufacturing	343	310	330	252
Construction	364	259	246	319
Wholesale & Retail	724	866	859	782
Hotels & Restaurants	334	385	415	384
Transport & Storage	195	184	201	155
Information & Communications	95	98	88	117
Financial Services	137	112	93	122
Business Services	509	491	507	499
Public Admin.	105	55	49	54
Education	285	292	267	255
Health & Social Work	417	408	382	461
Arts & Other Services	312	361	460	385

Source: Employer Skills Survey (2017)

Table A.1.4 Unweighted base sizes (i.e. number of completed interviews) for Scottish establishments, by size and sector

	2011	2013	2015	2017
Scotland	2,503	6,014	6,035	6,017
Size				
2 to 4	297	1,109	1,264	995
5 to 24	895	3,178	3,019	3,138
25 to 49	402	869	929	1,026
50 to 99	413	482	490	482
100-249	323	264	249	284
250+	157	112	84	92
Sector				
Primary Sector & Utilities	191	626	596	445
Manufacturing	176	409	377	409
Construction	229	496	489	424
Wholesale & Retail	317	991	938	933
Hotels & Restaurants	219	571	582	580
Transport & Storage	152	295	323	329
Information & Communications	72	151	260	255
Financial Services	91	205	227	207
Business Services	343	784	763	838
Public Admin.	136	124	102	158
Education	164	354	338	379
Health & Social Work	207	568	594	573
Arts & Other Services	190	440	446	487

Source: Employer Skills Survey (2017)

Table A.1.5 Unweighted base sizes (i.e. number of completed interviews) for Welsh establishments, by size and sector

	2011	2013	2015	2017
Wales	5,958	5,996	6,027	5,913
Size				
2 to 4	1,162	1,847	1,749	1,669
5 to 24	3,474	3,229	3,316	3,169
25 to 49	750	512	547	561
50 to 99	324	236	273	293
100-249	151	128	105	173
250+	97	44	37	48
Sector				
Primary Sector & Utilities	233	589	477	511
Manufacturing	467	401	417	419
Construction	498	467	405	481
Wholesale & Retail	1,062	1,109	1,203	958
Hotels & Restaurants	666	618	649	597
Transport & Storage	297	284	359	274
Information & Communications	138	135	167	168
Financial Services	173	127	108	154
Business Services	789	736	715	794
Public Admin.	129	67	75	91
Education	391	394	361	375
Health & Social Work	571	602	617	603
Arts & Other Services	544	467	474	488

Source: Employer Skills Survey (2017)

Chapter 2: Firmographics

Table A.2.1 Size profile of UK sector population

Row percentages	Size							
	%	2-4	5-9	10-24	25-49	50-99	100-249	250+
Sector								
Primary Sector & Utilities	%	77	14	6	2	1	*	*
Manufacturing	%	44	21	18	8	5	3	1
Construction	%	71	16	8	2	1	1	*
Wholesale & Retail	%	47	27	17	5	2	1	*
Hotels & Restaurants	%	40	27	23	8	2	1	*
Transport & Storage	%	49	19	16	7	5	3	1
Information & Communication	%	69	13	10	4	2	1	1
Financial Services	%	44	26	18	5	3	2	2
Business Services	%	64	18	11	3	2	1	1
Public Admin.	%	22	16	22	14	10	9	7
Education	%	21	15	20	20	14	8	2
Health & Social Work	%	30	22	27	12	6	2	1
Arts & Other Services	%	58	24	11	3	2	1	*

Source: ONS Inter-Departmental Business Register
** denotes a figure greater than zero but less than 0.5%*

Table A.2.2 Classification of UK establishments, by country, size and sector

Row percentages	Unwtd. Base:		Private sector	Third sector	Public sector	Single site	Multi-site
UK	87,430	%	87	9	4	67	33
Country							
England	71,527	%	88	8	3	67	33
Northern Ireland	3,973	%	82	12	7	72	28
Scotland	6,017	%	82	12	6	60	40
Wales	5,913	%	86	7	6	68	32
Size							
2 to 4	17,132	%	90	8	1	78	22
5 to 24	46,936	%	86	9	4	58	42
24 to 49	12,526	%	78	10	12	44	56
50 to 99	6,456	%	70	10	19	41	59
100 to 249	3,302	%	68	12	19	34	66
250+	1,078	%	68	11	21	32	68
Sector							
Primary Sector & Utilities	4,905	%	98	1	1	88	12
Manufacturing	6,578	%	99	1	*	79	21
Construction	6,846	%	99	*	*	90	10
Wholesale & Retail	14,514	%	96	4	*	49	51
Hotels & Restaurants	8,478	%	92	7	1	60	40
Transport & Storage	4,075	%	96	2	2	67	33
Information & Communications	3,976	%	97	2	*	85	15
Financial Services	2,678	%	95	4	1	66	34
Business Services	13,713	%	95	4	1	72	28
Public Admin.	1,162	%	9	4	86	44	56
Education	5,525	%	36	24	40	64	36
Health & Social Work	7,952	%	40	46	13	44	56
Arts & Other Services	7,028	%	66	28	6	70	30

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

Source: Employer Skills Survey (2017)

Chapter 3: Recruitment and SSVs

Table A.3.1 Incidence, number and density of vacancies for all establishments, by country, size and sector

	Unwtd. base	% of establishments with at least one vacancy (incidence) %	Number of vacancies (rounded to nearest 1,000)	Vacancies as a % of employment (density) %	Average (mean) vacancies per establishment with vacancies
UK	87,430	20	1,007,000	3.5	2.7
Country					
England	71,527	20	873,000	3.6	2.7
Northern Ireland	3,973	16	23,000	3.1	2.6
Scotland	6,017	20	75,000	3.1	2.5
Wales	5,913	17	36,000	3.0	2.4
Size					
2 to 4	17,132	11	153,000	5.8	1.6
5 to 24	46,936	24	281,000	4.1	1.8
25 to 49	12,526	44	127,000	3.5	2.7
50 to 99	6,456	55	125,000	3.5	4.0
100-249	3,302	67	137,000	3.1	6.6
250+	1,078	75	185,000	2.4	18.1
Sector					
Primary Sector & Utilities	4,905	8	18,000	2.3	1.9
Manufacturing	6,578	20	58,000	2.4	2.8
Construction	6,846	13	39,000	3.2	1.9
Wholesale & Retail	14,514	19	143,000	3.1	2.1
Hotels & Restaurants	8,478	27	122,000	5.7	2.7
Transport & Storage	4,075	20	38,000	2.9	3.2
Information & Communications	3,976	17	45,000	4.4	3.0
Financial Services	2,678	19	32,000	3.4	3.1
Business Services	13,713	18	212,000	3.9	2.8
Public Admin.	1,162	35	45,000	3.5	6.8
Education	5,525	31	52,000	2.0	2.6
Health & Social Work	7,952	30	148,000	3.8	3.5
Arts & Other Services	7,028	21	55,000	4.1	1.9

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.

Table A.3.2 Incidence, number and density of vacancies by occupation (2015-2017)

	% of establishments with vacancies who have a vacancy in occupation	Number of vacancies		Vacancies as a % of employment (density)
	Unwtd. base	*Rounded to nearest 1,000*	*Unwtd. base*	*%*
2015	*24,306*			
Managers	5	25,000	3,492	0.5
Professionals	14	130,000	1,518	3.8
Associate professionals	18	131,000	1,473	7.9
Administrative / clerical staff	13	89,000	4,301	2.6
Skilled trades occupations	16	87,000	3,142	4.5
Caring, leisure and other services	15	136,000	2,308	4.6
Sales and customer services	13	98,000	4,540	2.8
Machine operatives	6	61,000	1,813	2.6
Elementary staff	17	131,000	4,533	3.5
2017	*25,114*			
Managers	5	30,000	3,437	0.6
Professionals	14	131,000	1,838	3.6
Associate professionals	19	148,000	1,592	7.4
Administrative / clerical staff	14	80,000	4,297	2.2
Skilled trades occupations	16	98,000	3,006	4.9
Caring, leisure and other services	14	126,000	2,138	4.7
Sales and customer services	15	125,000	4,458	3.3
Machine operatives	7	64,000	1,895	2.7
Elementary staff	17	154,000	4,530	3.9

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

Table A.3.3 Incidence, number and density of skills-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 1,000*	*Unwtd. base*	*%*
UK	87,430	6	226,000	25,111	23
Country					
England	71,527	6	194,000	21,033	22
Northern Ireland	3,973	5	5,000	855	21
Scotland	6,017	6	18,000	1,827	24
Wales	5,913	6	10,000	1,399	27
Size					
2 to 4	17,132	4	48,000	1,589	31
5 to 24	46,936	7	74,000	11,506	27
25 to 49	12,526	11	28,000	5,507	22
50 to 99	6,456	14	25,000	3,483	20
100-249	3,302	18	23,000	2,204	17
250+	1,078	20	29,000	825	16
Sector					
Primary Sector & Utilities	4,905	3	6,000	591	33
Manufacturing	6,578	9	17,000	1,810	29
Construction	6,846	5	14,000	1,292	36
Wholesale & Retail	14,514	4	26,000	3,869	18
Hotels & Restaurants	8,478	7	21,000	3,366	17
Transport & Storage	4,075	6	11,000	973	30
Information & Communications	3,976	6	11,000	993	25
Financial Services	2,678	5	6,000	539	18
Business Services	13,713	6	52,000	3,911	24
Public Admin.	1,162	7	6,000	360	14
Education	5,525	9	11,000	2,156	22
Health & Social Work	7,952	7	32,000	3,353	22
Arts & Other Services	7,028	7	14,000	1,901	25

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

Table A.3.4 Density of skill-shortage vacancies, by country, size and sector (2011 - 2017)

	% of vacancies which are SSVs							
	2011		2013		2015		2017	
	Unwtd. base	*%*	*Unwtd. base*	*%*	*Unwtd. base*	*%*	*Unwtd. base*	*%*
UK	17,093	16	18,959	22	24,306	23	25,114	22
Country								
England	14,749	15	15,894	22	20,697	23	21,033	22
Northern Ireland	520	21	550	19	713	14	855	21
Scotland	729	15	1,499	25	1,619	24	1,827	24
Wales	1,095	18	1,016	20	1,277	24	1,399	27
Size								
2-4	1,389	21	1,403	30	1,869	29	1,589	31
5-24	7,869	17	8,969	26	11,864	26	11,506	27
25-49	2,972	18	3,653	21	4,992	21	5,507	22
50-99	2,241	11	2,435	19	3,159	20	3,483	20
100-249	1,698	14	1,737	19	1,759	20	2,204	17
250+	924	8	762	15	663	18	825	16
All sectors								
Primary Sector & Utilities	2,512	21	374	24	451	26	591	33
Manufacturing	1,460	24	1,347	30	1582	30	1,810	29
Construction	575	18	706	23	1173	35	1,292	36
Wholesale & Retail	2,549	14	2,983	18	3753	20	3,869	18
Hotels & Restaurants	2,078	15	2,447	19	3420	19	3,366	17
Transport & Storage	4,685	12	565	25	981	37	973	29
Information & Communications	3,125	15	667	27	1012	27	993	25
Financial Services	331	17	398	10	472	21	539	18
Business Services	2,945	17	3,147	28	3859	26	3,911	24
Public Admin.	402	10	283	22	276	9	360	14
Education	1,487	10	2,062	12	2073	16	2,156	22
Health & Social Work	1,992	10	2,375	22	3152	21	3,353	22
Arts & Other Services	1,578	21	1,605	24	2102	21	1,901	25

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.3.5 Number of skill-shortage vacancies by occupation within sector (corresponds with Table 3.1 in main report)

	Skilled Trades	Machine Operatives	Professionals	Caring, Leisure and Other Services	Associate Professionals	Managers	Administrative and Clerical	Sales and Customer Service	Elementary Occupations
	%	%	%	%	%	%	%	%	%
UK	41500	19600	39500	30400	33800	5600	11600	18800	21400
Sector									
Construction	8200	1500	1100	**	700	400	600	300	1100
Primary Sector & Utilities	600	2000	200	400	400	100	100	**	1800
Transport & Storage	1000	7900	300	**	200	100	400	400	800
Manufacturing	6500	2900	2300	**	1900	400	700	900	600
Arts & Other Services	900	**	700	7000	1800	300	600	800	1700
Information & Communications	500	**	4800	**	3900	200	300	900	100
Business Services	7100	2800	13300	1100	12400	1700	5800	2500	3300
Education	200	**	3900	4800	1300	<100	300	**	300
Health & Social Work	200	<100	10800	15900	2300	300	500	1100	400
Wholesale & Retail	7300	1500	500	300	2500	1100	700	9900	1700
Financial Services	**	**	100	**	3600	100	700	1100	**
Hotels & Restaurants	7700	400	**	800	300	800	500	800	9300
Public Admin.	1300	**	1300	<100	2400	100	400	**	**

Base: all establishments with vacancies for each occupation within sector

*** denotes a base size of fewer than 30 establishments*

Table A.3.5a Unweighted base sizes for Table 3.1 in main report

	Skilled Trades	Machine Operatives	Professionals	Caring, Leisure and Other Services	Associate Professionals	Managers	Administrative and Clerical	Sales and Customer Service	Elementary Occupations
	%	%	%	%	%	%	%	%	%
UK	3,919	1,995	4,261	4,225	4,584	1,426	3,591	3,372	4,864
Sector									
Construction	672	150	142	**	184	74	187	46	131
Primary Sector & Utilities	85	142	39	51	57	38	69	**	203
Transport & Storage	63	485	43	**	79	38	186	101	184
Manufacturing	607	435	277	**	440	116	224	166	191
Arts & Other Services	131	**	161	713	435	145	393	105	302
Information & Communications	76	**	414	**	415	33	128	122	32
Business Services	432	196	1,186	184	1,333	211	818	253	305
Education	53	**	915	998	264	45	275	**	246
Health & Social Work	107	41	811	2,025	490	161	339	72	261
Wholesale & Retail	551	329	119	**	400	253	320	2,225	494
Financial Services	**	**	47	**	249	38	255	70	**
Hotels & Restaurants	1,108	143	**	177	90	242	246	161	2,485
Public Admin.	32	**	89	32	148	32	151	**	**

*** denotes a base size of fewer than 30 establishments*

Table A.3.6 Skills lacking among applicants, overall and by country (prompted)

	UK	England	Northern Ireland	Scotland	Wales
Unweighted base	*7,229*	*5,975*	*251*	*552*	*451*
	%	*%*	*%*	*%*	*%*
Technical and practical skills					
Specialist skills or knowledge needed to perform the role	65	65	69	59	66
Solving complex problems requiring a solution specific to the situation	41	41	40	34	45
Knowledge of products and services offered by your organisation	38	38	38	39	45
Knowledge of how your organisation works	32	32	34	33	41
Computer literacy / basic IT skills	23	23	20	20	29
Reading and understanding instructions, guidelines, manuals or reports	33	33	32	26	38
Adapting to new equipment or materials	22	22	23	22	32
Writing instructions, guidelines, manuals or reports	28	27	30	26	34
More complex numerical or statistical skills and understanding	27	27	36	22	31
Advanced or specialist IT skills	21	21	24	16	27
Basic numerical skills and understanding	30	30	30	24	38
Communicating in a foreign language	16	16	18	19	16
Manual dexterity	17	16	30	18	29
Written Welsh language skills	1	-	-	-	17
Oral Welsh language skills	1	-	-	-	16
None of the above	9	8	10	12	5
People and personal skills					
Ability to manage own time and prioritise own tasks	51	51	46	46	56
Team working	37	36	40	38	49
Customer handling skills	39	39	38	40	38
Managing their own feelings, or handling the feelings of others	37	37	28	42	41
Managing or motivating other staff	35	35	33	37	35
Persuading or influencing others	33	34	24	33	32
Instructing, teaching or training people	26	26	22	23	28
Sales skills	27	27	22	28	28
Setting objectives for others & planning human, financial & other resources	25	25	25	24	25
Making speeches or presentations	17	16	16	21	21
None of the above	21	20	26	30	21

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.3.7 Technical and practical skills lacking among applicants, overall and by occupation (prompted)

	Overall	Managers	Professionals	Associate Professionals	Administrative and Clerical	Skilled Trades	Caring, Leisure and Other Services	Sales and Customer Service	Machine Operatives	Elementary Occupations
Unweighted base	*7,229*	*299*	*1,391*	*1,152*	*463*	*1,627*	*984*	*550*	*614*	*777*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Specialist skills or knowledge needed to perform the role	65	66	74	71	59	71	60	49	55	52
Knowledge of products and services offered by your organisation and organisations like yours	38	41	36	42	40	37	31	55	25	41
Solving complex problems requiring a solution specific to the situation	41	57	43	39	51	43	33	47	27	36
Knowledge of how your organisation works	32	38	32	34	31	28	31	40	23	39
Reading and understanding instructions, guidelines, manuals or reports	33	32	20	24	48	31	35	37	39	50
Adapting to new equipment or materials	22	27	18	16	17	30	16	24	22	36
Computer literacy / basic IT skills	24	28	22	19	33	20	23	31	17	22
Writing instructions, guidelines, manuals or reports	28	30	22	25	31	26	34	27	27	33
Basic numerical skills and understanding	30	28	17	24	27	30	33	42	40	36
More complex numerical or statistical skills and understanding	27	42	32	30	30	26	19	27	15	27
Advanced or specialist IT skills	21	27	36	28	24	15	11	19	11	11
Communicating in a foreign language	16	19	17	12	12	12	20	11	22	24
Manual dexterity	17	14	11	9	5	34	10	12	24	23
Written Welsh language skills	1	1	1	*	*	*	1	*	1	1
Oral Welsh language skills	1	1	1	*	*	*	1	*	1	1
None of the above	9	8	7	8	4	10	10	6	14	6

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. '' denotes a figure greater than zero but less than 0.5%.*

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.3.8 People and personal skills lacking among applicants, overall and by occupation (prompted)

	Overall	Managers	Professionals	Associate Professionals	Administrative and Clerical	Skilled Trades	Caring, Leisure and Other Services	Sales and Customer Service	Machine Operatives	Elementary Occupations
Unweighted base	*7,229*	*299*	*1,391*	*1,152*	*463*	*1,627*	*984*	*550*	*614*	*777*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Ability to manage own time and prioritise own tasks	51	41	39	49	45	49	53	63	41	72
Team working	37	41	30	27	31	36	48	39	35	54
Customer handling skills	39	43	25	42	56	29	40	59	39	49
Managing their own feelings, or handling the feelings of others	37	35	29	36	44	32	46	47	30	44
Managing or motivating other staff	35	52	36	31	26	32	39	35	22	48
Persuading or influencing others	33	49	36	44	45	21	30	40	17	36
Instructing, teaching or training people	26	45	28	22	18	24	25	22	22	34
Sales skills	27	40	14	40	42	19	18	61	9	34
Setting objectives for others and planning human, financial and other resources	25	46	24	28	34	23	24	23	11	27
Making speeches or presentations	17	25	18	24	13	14	15	20	9	16
None of the above	21	13	28	17	15	27	22	9	24	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.3.9 Technical or practical skills lacking among applicants, by sector (prompted)

	Overall	Primary Sector & Utilities	Manufacturing	Construction	Wholesale & Retail	Hotels & Restaurants	Transport & Storage	Information & Communications	Financial Services	Business Services	Public Admin.	Education	Health & Social Work	Arts & Other Services
Unweighted base	*7,229*	*384*	*1,495*	*1,001*	*1,660*	*1,691*	*949*	*788*	*287*	*2,900*	*305*	*1,281*	*3,048*	*929*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Specialist skills or knowledge	65	77	73	69	59	59	53	73	77	70	49	67	60	66
Solving complex problems	41	32	44	48	41	38	30	46	41	49	24	33	35	35
Knowledge of products & services offered	38	32	40	40	48	45	20	36	43	40	19	29	36	40
Knowledge of how organisation works	32	34	29	30	34	44	20	20	33	32	25	29	36	39
Computer literacy / basic IT skills	23	16	19	18	25	18	18	19	11	21	25	25	34	26
Reading/understanding instructions, reports etc.	33	43	31	34	35	38	38	21	14	31	37	25	34	34
Adapting to new equipment or materials	22	32	29	28	26	26	15	18	5	22	14	15	20	28
Writing instructions, reports, etc	28	14	25	29	25	30	33	20	14	26	45	26	35	26
Complex numerical or statistical skills	27	15	33	31	28	26	11	23	19	33	13	24	27	21
Advanced or specialist IT skills	21	10	22	17	18	9	8	57	14	28	18	22	19	13
Basic numerical skills	30	38	28	31	35	34	39	13	40	24	25	22	36	26
Communicating in a foreign language	16	28	16	7	12	30	20	13	3	13	7	14	25	15
Manual dexterity	17	26	33	33	24	20	16	4	2	13	6	7	14	13
Written Welsh language skills	1	*	*	2	*	1	*	*	*	*	1	1	2	1
Oral Welsh language skills	1	*	*	2	*	1	*	*	*	*	1	1	2	*
None of the above	9	7	8	7	8	9	8	4	6	8	24	11	10	9

Base: All establishments with skill-shortage vacancies – up to two occupations followed up.

'' denotes a figure greater than zero but less than 0.5%.*

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.3.10 People and personal skills lacking among applicants, by sector (prompted)

	Overall	Primary Sector & Utilities	Manufacturing	Construction	Wholesale & Retail	Hotels & Restaurants	Transport & Storage	Information & Communications	Financial Services	Business Services	Public Admin.	Education	Health & Social Work	Arts & Other Services
Unweighted base	*7,229*	*384*	*1,495*	*1,001*	*1,660*	*1,691*	*949*	*788*	*287*	*2,900*	*305*	*1,281*	*3,048*	*929*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Ability to manage own time and prioritise own tasks	51	47	45	56	53	67	43	46	27	49	44	50	47	59
Team working	37	37	36	41	38	51	33	29	19	32	18	38	40	49
Customer handling skills	39	20	25	41	51	48	51	35	52	42	15	29	30	50
Managing own feelings, or handling feelings of others	37	31	31	31	33	51	34	23	44	36	30	38	46	41
Managing or motivating other staff	35	33	31	36	30	50	19	34	13	35	16	37	41	42
Persuading or influencing others	33	22	25	22	36	37	17	31	53	38	30	29	36	35
Instructing, teaching or training people	26	41	18	24	23	35	15	25	6	24	21	33	31	27
Sales skills	27	11	21	21	38	37	12	31	64	37	*	10	8	45
Setting objectives for others and planning resources	25	19	27	22	22	35	10	30	10	27	20	25	23	28
Making speeches or presentations	17	9	13	16	16	18	7	25	11	19	20	24	17	16
None of the above	21	14	30	24	21	10	26	22	12	21	34	24	23	17

Base: All establishments with skill-shortage vacancies – up to two occupations followed up.

'' denotes a figure greater than zero but less than 0.5%.*

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.3.11a Most common impacts of skill-shortage vacancies (prompted), by country and size

	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 introducing new working practices	Have difficulties meeting quality standards	Outsource work	Withdraw from offering certain products or services altogether	Have difficulties introducing technological change
UK	*6,670*	%	94	85	48	43	43	40	35	34	31	25	23
Country													
England	*5,503*	%	94	84	48	43	42	39	34	34	31	25	22
Northern Ireland	*234*	%	96	89	54	44	47	51	47	40	32	26	30
Scotland	*505*	%	97	89	50	39	45	44	35	36	32	24	25
Wales	*428*	%	94	85	51	47	48	41	36	32	28	26	26
Size													
2 to 4	*571*	%	95	84	45	50	40	42	34	31	32	30	25
5 to 24	*3,314*	%	94	85	51	43	42	40	36	35	29	25	22
25 to 49	*1,278*	%	93	85	49	36	45	36	35	40	31	21	20
50 to 99	*796*	%	94	83	48	29	50	37	32	35	31	17	20
100-249	*514*	%	95	87	49	26	52	34	31	38	37	15	22
250+	*197*	%	96	88	54	27	60	43	43	38	31	16	32

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

Table A.3.11b Most common impacts of skill-shortage vacancies (prompted), by sector

	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 introducing new working practices	Have difficulties meeting quality standards	Outsource work	Withdraw from offering certain products or services altogether	Have difficulties introducing technological change
UK	*6,670*	%	94	85	48	43	43	40	35	34	31	25	23
Sector													
Primary Sector & Utilities	*200*	%	96	89	37	32	52	32	42	34	40	20	26
Manufacturing	*673*	%	95	83	51	47	49	43	32	34	35	28	30
Construction	*478*	%	96	87	47	53	40	38	31	31	41	27	20
Wholesale & Retail	*810*	%	95	87	56	48	40	36	31	33	23	21	23
Hotels & Restaurants	*712*	%	91	84	52	41	46	39	40	45	22	26	16
Transport & Storage	*284*	%	95	74	52	49	60	33	34	35	53	35	21
Information & Communications	*335*	%	96	78	41	46	34	67	29	31	31	19	31
Financial Services	*160*	%	94	90	41	30	37	42	35	32	21	12	19
Business Services	*1,247*	%	95	88	49	47	41	42	34	31	35	26	26
Public Admin.	*70*	%	91	87	52	3	47	35	37	38	26	20	18
Education	*541*	%	94	83	30	25	44	33	30	35	32	25	16
Health & Social Work	*716*	%	93	85	44	24	51	38	40	38	30	23	21
Arts & Other Services	*444*	%	93	78	48	48	36	40	40	32	18	29	20

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

Table A.3.12 Profile of hard-to-fill vacancies, by country, size and sector

	Unweighted base	Total number of hard-to-fill vacancies (rounded to nearest 1,000)	% 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	*25,114*	337,000	33	2.2	0.9
Country					
England	*21,033*	287,000	33	2.2	0.9
Northern Ireland	*855*	7,000	31	2.1	0.8
Scotland	*1,827*	30,000	39	2.3	1.0
Wales	*1,399*	13,000	36	2.0	0.9
Size					
2 to 4	*1,589*	63,000	41	1.3	0.6
5 to 24	*11,506*	108,000	38	1.7	0.7
25 to 49	*5,507*	44,000	35	2.6	1.0
50 to 99	*3,483*	38,000	30	3.8	1.3
100-249	*2,204*	33,000	24	2.1	1.8
250+	*825*	52,000	28	17.4	5.8
Sector					
Primary Sector & Utilities	*591*	8,000	45	1.7	0.9
Manufacturing	*1810*	22,000	38	2.1	1.1
Construction	*1292*	19,000	49	1.6	0.9
Wholesale & Retail	*3869*	38,000	26	1.7	0.5
Hotels & Restaurants	*3366*	40,000	33	2.0	0.8
Transport & Storage	*973*	17,000	44	3.3	1.5
Information & Communications	*993*	17,000	39	2.9	1.2
Financial Services	*539*	6,000	20	2.6	0.9
Business Services	*3911*	63,000	30	2.0	0.8
Public Admin.	*360*	11,000	25	6.3	1.8
Education	*2156*	15,000	28	2.3	0.8
Health & Social Work	*3353*	60,000	40	3.9	1.5
Arts & Other Services	*1901*	20,000	37	1.5	0.7

Base: All establishments with vacancies.

Table A.3.13a Actions taken to overcome difficulties finding candidates to fill hard-to-fill vacancies (unprompted), by country and size

	Unwtd. base		Any Action	Increasing advertising / recruitment spend	Using NEW recruitment methods or channels	Redefining existing jobs	Being prepared to offer training to less well qualified recruits	Increasing the training given to your existing workforce	Increasing / expanding trainee programmes	Bringing in contractors to do the work, or contracting it out	Increasing salaries	Recruiting workers who are non-UK nationals	Making the job more attractive e.g. recruitment incentives enhanced T&Cs working hours
UK	*9,885*	%	87	41	33	14	10	9	8	8	8	5	2
Country													
England	*8,232*	%	88	42	33	14	10	9	8	8	8	6	2
Northern Ireland	*336*	%	85	36	32	18	9	8	10	7	8	7	4
Scotland	*735*	%	86	40	32	13	8	12	9	12	5	3	3
Wales	*582*	%	84	36	33	17	7	7	8	8	6	3	2
Size													
2 to 4	*763*	%	82	37	28	15	9	8	5	9	7	6	1
5 to 24	*4,790*	%	88	43	33	15	10	8	9	6	7	4	2
25 to 49	*2,044*	%	91	44	38	13	11	13	12	9	10	7	3
50 to 99	*1,226*	%	94	45	43	12	10	11	13	10	10	6	4
100-249	*773*	%	95	43	43	13	12	13	12	10	12	6	4
250+	*289*	%	95	42	45	11	11	11	16	10	14	7	5

Base: All establishments with hard-to-fill vacancies

Table A.3.13b Actions taken to overcome difficulties finding candidates to fill hard-to-fill vacancies (unprompted), by sector

	Unwtd. base		Any Action	Increasing advertising / recruitment spend	Using NEW recruitment methods or channels	Redefining existing jobs	Being prepared to offer training to less well qualified recruits	Increasing the training given to your existing workforce	Increasing / expanding trainee programmes	Bringing in contractors to do the work, or contracting it out	Increasing salaries	Recruiting workers who are non-UK nationals	Making the job more attractive e.g. recruitment incentives enhanced T&Cs working hours
UK	*9,885*	%	87	41	33	14	10	9	8	8	8	5	2
Sector													
Primary Sector & Utilities	*284*	%	84	34	30	15	11	8	8	11	7	4	2
Manufacturing	*859*	%	86	37	32	12	11	12	11	6	8	4	2
Construction	*643*	%	83	34	29	11	9	9	8	11	7	2	1
Wholesale & Retail	*1,201*	%	82	40	28	14	7	7	7	5	6	2	2
Hotels & Restaurants	*1,387*	%	91	46	32	17	8	11	7	4	9	8	3
Transport & Storage	*436*	%	82	39	27	14	9	10	8	9	9	6	4
Information & Communications	*401*	%	93	37	39	12	13	10	14	14	10	8	2
Financial Services	*193*	%	92	45	49	15	10	13	11	4	9	2	2
Business Services	*1,576*	%	87	37	38	15	14	9	9	12	8	8	2
Public Admin.	*104*	%	98	50	37	15	12	8	8	16	12	-	5
Education	*738*	%	94	53	42	12	8	8	9	9	9	3	5
Health & Social Work	*1,357*	%	90	50	39	13	8	8	7	8	8	5	4
Arts & Other Services	*706*	%	87	45	25	17	9	10	10	2	6	3	1

Base: All establishments with hard-to-fill vacancies

- denotes a figure of zero.

Chapter 4: Internal Skills Challenges

Table A.4.1a Incidence, number and density of skills gaps, by size (2011-2017)

	2011			2013			2015			2017		
	% of establishment with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff reported as having skills gaps	% of establishment with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff reported as having skills gaps	% of establishment with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff reported as having skills gaps	% of establishment with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff reported as having skills gaps
UK	17	1,485,471	5.5	15	1,409,887	5.2	14	1,380,237	5.0	13	1,267,469	4.4
Size												
2 to 4	8	85,621	3.6	7	69,864	2.9	6	62,138	2.6	6	64,647	2.5
5 to 24	23	352,759	5.5	21	315,589	4.9	19	287,005	4.3	19	291,704	4.3
25 to 49	35	185,218	5.5	32	169,537	5.1	30	157,992	4.5	30	168,992	4.7
50 to 99	39	186,942	5.5	36	178,076	5.2	33	155,736	4.5	32	159,730	4.4
100-249	44	235,846	5.8	44	221,092	5.5	39	216,932	5.1	34	209,048	4.7
250+	47	439,085	6.0	48	455,729	6.2	43	500,434	6.7	43	373,348	4.8

Percentages are based on all employment, rather than all establishments; proportions therefore show the percentage of staff reported as having skills gaps
See Table A.1.1 in Appendix A for base sizes.

Table A.4.1b Incidence, number and density of skills gaps, by sector (2011-2017)

	2011			2013			2015			2017		
	% of establishment with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff reported as having skills gaps	% of establishment with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff reported as having skills gaps	% of establishment with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff reported as having skills gaps	% of establishment with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff reported as having skills gaps
Sector												
Primary Sector & Utilities	12	34,335	4.9	10	35,196	4.9	8	26,918	3.8	9	36,325	4.7
Manufacturing	21	145,062	6.0	18	134,768	5.8	19	172,189	7.2	18	138,418	5.8
Construction	13	64,864	4.8	11	59,123	4.7	10	44,545	3.8	10	47,813	4.0
Wholesale & Retail	19	293,469	6.6	17	254,400	5.8	16	242,154	5.4	15	234,074	5.1
Hotels & Restaurants	23	155,575	9.0	21	159,427	8.9	19	140,138	7.2	19	142,713	6.7
Transport & Storage	16	55,485	4.4	13	41,289	3.3	15	51,997	4.3	13	42,380	3.2
Information & Communications	15	43,823	5.1	13	53,200	6.1	10	56,938	5.7	10	45,194	4.4
Financial Services	21	46,015	4.4	19	83,847	8.1	16	36,372	3.7	15	46,828	5.0
Business Services	13	220,949	5.1	13	224,065	5.0	12	249,255	5.2	11	229,910	4.3
Public Admin.	23	83,016	5.3	20	68,988	4.8	23	85,979	6.4	20	50,413	3.9
Education	22	94,924	3.8	18	97,708	3.8	19	103,656	4.0	18	74,262	2.9
Health & Social Work	20	180,179	5.2	19	143,632	4.0	15	122,688	3.2	13	126,444	3.3
Arts & Other Services	16	67,775	5.6	14	54,244	4.4	12	47,406	3.8	12	52,697	3.9

Percentages are based on all employment, rather than all establishments; proportions therefore show the percentage of staff reported as having a skills gap.
See Table A.1.1 in Appendix A for base sizes.

Table A.4.2 Density of skills gaps by sector within nation (2015-2017)

	England		Northern Ireland		Scotland		Wales	
	2015 %	2017 %	2015 %	2017 %	2015 %	2017 %	2015 %	2017 %
All sectors	5.0	4.3	3.3	3.8	5.0	5.0	4.5	4.7
Sector								
Primary Sector & Utilities	4.1	4.9	2.2	3.0	2.2	5.1	3.2	1.9
Manufacturing	6.8	5.6	4.2	5.1	10.9	7.2	8.9	5.9
Construction	3.7	3.8	2.8	4.8	4.3	5.0	4.8	4.4
Wholesale & Retail	5.4	4.9	5.7	5.4	5.5	6.8	3.6	5.6
Hotels & Restaurants	7.2	6.6	6.1	8.3	7.2	6.8	6.9	7.3
Transport & Storage	4.3	3.3	3.1	3.3	4.4	2.7	4.3	1.9
Information & Communications	5.8	4.7	0.1	1.7	5.2	2.3	2.7	2.5
Financial Services	3.6	4.9	1.9	3.2	4.3	3.6	4.2	7.7
Business Services	5.2	4.2	2.2	4.0	5.2	5.2	6.3	3.2
Public Admin.	7.6	4.0	*0.2*	0.6	2.1	4.9	1.8	2.3
Education	4.0	2.8	1.3	3.8	5.3	3.5	2.4	3.2
Health & Social Work	3.3	3.2	3.3	1.1	2.7	3.2	3.5	5.7
Arts & Other Services	3.8	3.9	2.9	2.1	3.9	4.6	3.8	4.9

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 30 and 49 establishments, figures are shown in italics.

Table A.4.2a Unweighted base sizes for previous table (Table A.4.2)

	England		Northern Ireland		Scotland		Wales	
	2015	2017	2015	2017	2015	2017	2015	2017
UK	75,129	71,527	4,019	3,937	6,035	6,017	6,027	5,913
Sector								
Primary Sector & Utilities	3,649	3,761	122	188	596	445	477	511
Manufacturing	5,703	5,498	330	252	377	409	417	419
Construction	6,334	5,622	246	319	489	424	405	481
Wholesale & Retail	13,126	11,841	859	782	938	933	1,203	958
Hotels & Restaurants	7,274	6,917	415	384	582	580	649	597
Transport & Storage	3,797	3,317	201	155	323	329	359	274
Information & Communications	3,741	3,436	88	117	260	255	167	168
Financial Services	2,121	2,195	93	122	227	207	108	154
Business Services	11,158	11,582	507	499	763	838	715	794
Public Admin.	721	859	49	54	102	158	75	91
Education	4,549	4,516	267	255	338	379	361	375
Health & Social Work	6,963	6,315	382	461	594	573	617	603
Arts & Other Services	5,993	5,668	460	385	446	487	474	488

Table A.4.3 Proportion of each occupation lacking full proficiency within country

	UK	England	Northern Ireland	Scotland	Wales
	%	%	%	%	%
Managers	2.0	2.0	1.7	2.6	1.6
Professionals	2.7	2.6	2.4	3.3	5.0
Associate professionals	4.2	4.0	4.4	5.0	5.5
Administrative / clerical staff	3.8	3.7	2.5	4.3	4.2
Skilled trades occupations	5.7	5.5	7.5	6.2	6.9
Caring, leisure and other services	3.7	3.7	1.6	4.2	3.0
Sales and customer services	7.0	7.0	6.5	7.0	6.7
Machine operatives	5.2	5.1	4.4	6.7	5.1
Elementary staff	6.4	6.4	5.9	6.8	6.2

Base: All establishments employing each type of occupation (see Table A.4.3a for base sizes)

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

Table A.4.3a Unweighted base sizes for previous table (Table A.4.3)

	UK	England	Northern Ireland	Scotland	Wales
	%	%	%	%	%
Managers	83,848	68,786	3,693	5,743	5,626
Professionals	19,574	16,216	848	1,401	1,109
Associate professionals	15,147	12,588	603	1,160	796
Administrative / clerical staff	54,285	44,687	2,439	3,869	3,290
Skilled trades occupations	22,628	18,361	916	1,823	1,528
Caring, leisure and other services	14,042	11,463	665	957	957
Sales and customer services	25,465	21,059	1,133	1,744	1,529
Machine operatives	14,797	11,984	647	1,178	988
Elementary staff	30,744	24,988	1,307	2,459	1,990

Table A.4.4 Unweighted base sizes for Table 4.1 in main report

	Managers	Professionals	Associate Professionals	Administrative and Clerical	Skilled Trades	Caring, Leisure and Other Services	Sales and Customer Service	Machine Operatives	Elementary Occupations
UK	83,484	19,574	15,147	54,285	22,628	14,042	25,465	14,797	30,744
Sector									
Primary Sector & Utilities	4,425	265	295	2,151	1,077	238	390	1,244	1,849
Manufacturing	6,444	1,289	1,647	5,058	3,047	40	2,223	3,554	2,376
Construction	6,606	868	877	5,058	3,836	26**	823	1,260	1,700
Wholesale & Retail	14,029	1,573	1,646	7,008	3,008	134	10,467	3,482	4,292
Hotels & Restaurants	8,133	220	311	2,154	3,533	505	2,140	386	6,986
Transport & Storage	3,840	316	354	2,603	548	58	1,148	1,789	1,050
Information & Communications	3,829	1,618	1,337	2,402	770	31	1,389	156	291
Financial Services	2,566	510	584	2,126	51	9**	771	11**	117
Business Services	13,253	5,050	4,076	10,595	2,022	578	3,386	1,543	2,258
Public Admin.	1,088	343	342	996	241	153	146	125	376
Education	5,386	3,814	1,213	4,508	1,404	4,466	325	218	3,519
Health & Social Work	7,759	2,765	1,205	5,541	1,879	5,385	633	457	3,546
Arts & Other Services	6,490	943	1,260	4,085	1,212	2,419	1,624	572	2,384

*'**' Corresponds with the asterisks shown in Table 4.1 (base in fewer than 30 establishments)*

Table A.4.5 Main causes of skills gaps, by sector

	Overall	Primary Sector & Utilities	Manufacturing	Construction	Wholesale & Retail	Hotels & Restaurants	Transport & Storage	Information & Communications	Financial Services	Business Services	Public Admin.	Education	Health & Social Work	Arts & Other Services
Unweighted base	*18,021*	*633*	*1,650*	*1,208*	*3,502*	*2,462*	*620*	*622*	*479*	*2,613*	*218*	*1,290*	*1,505*	*1219*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
They are new to the role	63	45	68	57	64	66	66	50	65	64	64	56	68	54
Their training is currently only partially completed	57	36	72	63	56	57	49	43	50	59	68	50	63	49
Staff lack motivation	32	27	28	23	35	35	44	17	18	30	34	33	38	25
They have been on training but their performance has not improved sufficiently	30	23	24	20	34	33	51	14	22	36	29	31	29	22
Unable to recruit staff with the required skills	28	28	36	27	24	32	30	19	13	30	18	30	31	22
They have not received the appropriate training	25	27	30	27	26	24	24	22	16	24	31	24	28	24
The introduction of new working practices	24	18	27	21	24	24	27	14	21	22	25	35	30	21
Problems retaining staff	21	18	20	15	18	26	31	9	8	24	26	20	28	17
The introduction of new technology	19	14	21	14	20	12	25	12	16	20	23	21	23	15
The development of new products and services	16	6	20	11	16	15	25	11	10	18	7	15	14	15

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.4.6 Main causes of skills gaps, by occupation

	Managers	Professionals	Associate Professionals	Administrative and Clerical	Skilled Trades	Caring, Leisure and Other Services	Sales and Customer Service	Machine Operatives	Elementary Occupations
Unweighted base	2,977	1,579	1,334	3,721	2,726	1,982	3,987	1,674	3,996
	%	%	%	%	%	%	%	%	%
They are new to the role	51	65	66	65	61	67	59	69	64
Their training is currently only partially completed	48	66	65	55	67	63	49	63	57
Staff lack motivation	30	26	21	28	25	37	28	31	44
They have been on training but their performance has not improved sufficiently	25	23	36	28	22	29	28	36	39
Unable to recruit staff with the required skills	27	29	19	21	35	33	20	38	32
They have not received the appropriate training	39	27	19	26	30	24	20	28	24
The introduction of new working practices	28	32	22	27	24	23	19	26	25
Problems retaining staff	18	20	17	16	22	29	18	25	26
The introduction of new technology	23	25	15	25	19	13	14	26	17
The development of new products and services	18	20	13	13	16	11	15	21	15
Summary: New to the role / training not complete (transient factors)	**65**	**82**	**80**	**76**	**83**	**82**	**69**	**80**	**76**

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.4.7a Technical and practical skills lacking among staff with skills gaps, by occupation

	Overall	Managers	Professionals	Associate Professionals	Administrative and Clerical	Skilled Trades	Caring, Leisure and Other Services	Sales and Customer Service	Machine Operatives	Elementary Occupations
Unweighted base	*18,021*	*2,977*	*1,579*	*1,334*	*3,721*	*2,726*	*1,982*	*3,987*	*1,674*	*3,997*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Specialist skills or knowledge needed to perform the role	47	47	62	63	43	63	65	35	46	39
Knowledge of products and services offered by your organisation and organisations like yours	39	29	32	34	47	41	30	45	36	41
Solving complex problems requiring a solution specific to the situation	37	46	52	45	42	43	38	28	32	30
Knowledge of how your organisation works	35	31	31	35	42	28	41	33	35	40
Reading and understanding instructions, guidelines, manuals or reports	31	19	22	28	33	29	40	22	46	38
Adapting to new equipment or materials	29	21	20	21	27	38	29	22	48	32
Computer literacy / basic IT skills	25	30	18	20	39	21	32	21	29	22
Writing instructions, guidelines, manuals or reports	23	28	29	25	27	23	35	12	28	22
Basic numerical skills and understanding	21	11	8	20	19	20	22	16	35	27
More complex numerical or statistical skills and understanding	20	26	24	32	31	18	15	13	21	18
Advanced or specialist IT skills	19	26	33	28	36	17	13	14	17	11
Communicating in a foreign language	13	10	6	8	9	16	16	8	21	21
Manual dexterity	13	6	7	4	5	28	6	6	30	20
Written Welsh language skills	1	1	5	*	1	2	1	1	*	*
Oral Welsh language skills	1	1	6	*	1	*	1	1	*	*
None of the above	10	14	11	8	7	9	7	10	7	13

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.

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

Table A.4.7b People and personal skills lacking among staff with skills gaps, by occupation

	Overall	Managers	Professionals	Associate Professionals	Administrative and Clerical	Skilled Trades	Caring, Leisure and Other Services	Sales and Customer Service	Machine Operatives	Elementary Occupations
Unweighted base	*18,021*	*2,977*	*1,579*	*1,334*	*3,721*	*2,726*	*1,982*	*3,987*	*1,674*	*3,997*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Ability to manage own time and prioritise own tasks	59	57	60	67	61	55	68	49	56	66
Team working	51	47	47	49	46	50	58	39	58	62
Customer handling skills	45	32	36	50	54	37	45	55	23	51
Managing their own feelings, or handling the feelings of others	44	56	43	47	38	35	61	37	42	46
Managing or motivating other staff	37	67	45	37	30	39	38	29	35	36
Persuading or influencing others	35	50	45	42	30	29	34	36	29	31
Instructing, teaching or training people	28	48	38	28	25	29	27	20	34	23
Sales skills	26	25	14	29	21	16	10	47	9	26
Setting objectives for others and planning human, financial and other resources	25	56	37	27	23	26	23	19	21	20
Making speeches or presentations	16	30	30	31	15	17	13	12	13	9
None of the above	12	11	18	8	12	19	11	8	13	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 cause.

Table A.4.7c Technical and practical skills lacking among staff with skills gaps, by sector

	Overall	Primary Sector & Utilities	Manufacturing	Construction	Wholesale & Retail	Hotels & Restaurants	Transport & Storage	Information & Communications	Financial Services	Business Services	Public Admin.	Education	Health & Social Work	Arts & Other Services
Unweighted base	*18,021*	*633*	*1,650*	*1,208*	*3,502*	*2,462*	*620*	*622*	*479*	*2,613*	*218*	*1,290*	*1,505*	*1,219*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Specialist skills or knowledge	47	48	56	54	39	40	43	46	35	50	44	58	62	42
Solving complex problems	37	30	41	42	33	33	26	25	33	43	38	35	43	31
Knowledge of products & services offered	39	26	41	38	49	47	34	26	41	38	24	28	31	37
Knowledge of how organisation works	35	24	36	30	38	41	37	18	26	32	42	36	41	35
Computer literacy / basic IT skills	25	20	27	25	28	17	37	9	17	24	32	31	31	23
Reading/understanding instructions, reports etc.	31	32	37	30	28	30	43	13	22	32	34	29	39	23
Adapting to new equipment or materials	29	31	41	33	28	29	42	16	11	24	32	25	30	27
Writing instructions, reports, etc	23	24	25	25	17	19	30	12	16	27	25	26	36	16
Complex numerical or statistical skills	20	20	27	21	17	16	16	12	22	26	22	25	17	15
Advanced or specialist IT skills	19	18	23	18	15	8	14	36	20	25	31	23	20	16
Basic numerical skills	21	16	25	20	21	25	33	6	17	20	25	20	14	16
Communicating in a foreign language	13	24	18	5	10	18	25	5	3	14	15	9	14	9
Manual dexterity	13	23	26	24	12	14	24	4	1	8	16	6	7	13
Written Welsh language skills (Wales base only)	1	1	*	*	1	1	*	*	0	*	*	4	5	1
Oral Welsh language skills (Wales base only)	1	*	*	*	1	1	*	*	0	*	1	1	5	1
None of the above	10	8	6	11	12	14	8	22	4	8	3	8	7	11

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.

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

Table A.4.7d People and personal skills lacking among staff with skills gaps, by sector

	Overall	Primary Sector & Utilities	Manufacturing	Construction	Wholesale & Retail	Hotels & Restaurants	Transport & Storage	Information & Communications	Financial Services	Business Services	Public Admin.	Education	Health & Social Work	Arts & Other Services
Unweighted base	*18,021*	*633*	*1,650*	*1,208*	*3,502*	*2,462*	*620*	*622*	*479*	*2,613*	*218*	*1,290*	*1,505*	*1,219*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Ability to manage own time and prioritise own tasks	59	54	54	61	59	64	61	38	50	62	55	58	68	54
Team working	51	49	54	42	50	55	59	33	33	52	47	53	60	41
Customer handling skills	45	22	24	37	53	62	43	36	39	48	45	32	45	47
Managing own feelings, or handling feelings of others	44	32	44	35	43	45	55	20	26	43	35	52	63	38
Managing or motivating other staff	37	33	41	34	36	43	38	27	21	37	27	43	42	33
Persuading or influencing others	35	23	38	29	37	36	38	30	30	35	27	36	41	30
Instructing, teaching or training people	28	23	39	24	26	31	32	13	15	25	24	37	29	28
Sales skills	26	11	19	15	41	42	20	30	29	24	4	8	8	27
Setting objectives for others and planning resources	25	23	29	26	23	24	26	19	14	28	18	30	29	24
Making speeches or presentations	16	7	18	11	13	13	22	16	12	20	18	20	20	14
None of the above	12	15	16	20	11	10	10	20	7	11	11	10	11	12

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.4.7e Skills lacking among staff with skills gaps, by nation

	UK	England	Northern Ireland	Scotland	Wales
Unweighted base	*18,021*	*14,806*	*657*	*1,502*	*1,056*
	%	*%*	*%*	*%*	*%*
Technical and practical skills					
Specialist skills or knowledge needed to perform the role	47	47	51	48	57
Solving complex problems requiring a solution specific to the situation	37	36	34	40	48
Knowledge of products and services offered by your organisation	39	38	47	44	48
Knowledge of how your organisation works	35	34	37	41	42
Computer literacy / basic IT skills	25	25	27	24	29
Reading and understanding instructions, guidelines, manuals or reports	31	31	21	29	39
Adapting to new equipment or materials	29	28	30	32	33
Writing instructions, guidelines, manuals or reports	23	22	26	24	33
More complex numerical or statistical skills and understanding	20	20	18	19	26
Advanced or specialist IT skills	19	19	20	21	20
Basic numerical skills and understanding	21	21	21	16	24
Communicating in a foreign language	13	14	13	14	6
Manual dexterity	13	12	17	18	15
Written Welsh language skills	1	-	-	-	22
Oral Welsh language skills	1	-	-	-	20
None of the above	10	10	10	10	9
People and personal skills					
Ability to manage own time and prioritise own tasks	59	58	62	63	66
Team working	51	49	56	59	61
Customer handling skills	45	45	49	45	47
Managing their own feelings, or handling the feelings of others	44	42	48	49	56
Managing or motivating other staff	37	37	41	35	48
Persuading or influencing others	35	34	41	38	44
Instructing, teaching or training people	28	27	28	30	40
Sales skills	26	26	35	24	23
Setting objectives for others & planning human, financial & other resources	25	25	25	25	35
Making speeches or presentations	16	16	16	14	26
None of the above	12	12	13	10	10

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.4.8 Extent of impact of skills gaps, by year, country, size and sector

	Unweighted 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
UK 2017	*18,021*	%	17	48	34
Country					
England	*14,806*	%	17	48	35
Northern Ireland	*657*	%	19	50	31
Scotland	*1,502*	%	19	49	32
Wales	*1,056*	%	16	51	32
Size					
2 to 4	*998*	%	20	43	37
5 to 24	*9,570*	%	17	48	35
25 to 49	*3,781*	%	17	50	33
50 to 99	*2,048*	%	14	53	33
100-249	*1,163*	%	17	56	27
250+	*461*	%	12	65	23
Sector					
Primary Sector & Utilities	*633*	%	21	42	37
Manufacturing	*1,650*	%	17	48	35
Construction	*1,208*	%	14	42	44
Wholesale & Retail	*3,502*	%	17	51	32
Hotels & Restaurants	*2,462*	%	21	51	28
Transport & Storage	*620*	%	22	44	34
Information & Communications	*622*	%	20	47	33
Financial Services	*479*	%	14	46	39
Business Services	*2,613*	%	18	49	33
Public Admin.	*218*	%	15	54	31
Education	*1,290*	%	11	49	40
Health & Social Work	*1,505*	%	15	46	39
Arts & Other Services	*1,219*	%	16	46	39

Base: All establishments with skills gaps

Table A.4.9 Implications of skills gaps (prompted), by country, size and sector

	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	*18,021*	*%*	51	27	24	23	21	17	11
Country									
England	*14,806*	*%*	50	26	24	22	21	16	11
Northern Ireland	*657*	*%*	55	31	27	28	24	19	12
Scotland	*1,502*	*%*	53	30	25	28	20	18	9
Wales	*1,056*	*%*	54	30	23	26	22	19	12
Size									
2 to 4	*998*	*%*	45	24	18	19	22	19	12
5 to 24	*9,570*	*%*	52	26	25	23	22	16	9
25 to 49	*3,781*	*%*	54	31	28	25	19	16	11
50 to 99	*2,048*	*%*	54	30	27	26	15	14	12
100-249	*1,163*	*%*	59	34	30	26	19	15	13
250+	*461*	*%*	59	34	28	30	18	16	16
Sector									
Primary Sector & Utilities	*633*	*%*	48	39	19	24	12	14	16
Manufacturing	*1,650*	*%*	51	38	26	22	20	23	14
Construction	*1,208*	*%*	42	27	16	15	18	13	12
Wholesale & Retail	*3,502*	*%*	54	23	22	23	26	14	7
Hotels & Restaurants	*2,462*	*%*	58	36	36	26	28	17	11
Transport & Storage	*620*	*%*	51	30	27	26	26	17	10
Information & Communications	*622*	*%*	48	27	21	22	22	28	15
Financial Services	*479*	*%*	49	23	23	16	13	12	9
Business Services	*2,613*	*%*	51	26	22	22	22	19	12
Public Admin.	*218*	*%*	54	19	23	27	4	12	9
Education	*1,290*	*%*	51	21	26	27	9	12	10
Health & Social Work	*1,505*	*%*	45	20	24	28	8	14	10
Arts & Other Services	*1,219*	*%*	46	22	24	22	19	17	8

Base: All establishments with skills gaps

Table A.4.10 Actions taken to overcome skills gaps, by country, size and sector

	Unwtd. base		Increase training activity	More supervision of staff	More staff appraisals	Implementation of mentoring scheme	Reallocating work	Changing working practices	Increase recruitment activity / spend	Any action
UK	*18,021*	*%*	67	54	45	44	35	27	21	83
Country										
England	*14,806*	*%*	66	54	45	43	34	27	21	83
Northern Ireland	*657*	*%*	65	58	48	43	41	29	21	82
Scotland	*1,502*	*%*	70	56	44	47	37	31	17	84
Wales	*1,056*	*%*	70	60	48	47	39	31	23	85
Size										
2 to 4	*998*	*%*	57	45	31	32	29	21	13	75
5 to 24	*9,570*	*%*	67	56	46	44	35	27	20	84
25 to 49	*3,781*	*%*	75	60	55	53	39	33	28	89
50 to 99	*2,048*	*%*	76	61	58	55	38	33	30	90
100-249	*1,163*	*%*	78	60	57	58	43	34	35	91
250+	*461*	*%*	76	50	49	61	41	37	35	87
Sector										
Primary Sector & Utilities	*633*	*%*	53	44	26	27	27	21	15	72
Manufacturing	*1,650*	*%*	66	50	37	40	33	25	23	82
Construction	*1,208*	*%*	56	45	30	35	27	18	15	75
Wholesale & Retail	*3,502*	*%*	64	54	48	44	35	26	18	83
Hotels & Restaurants	*2,462*	*%*	72	62	55	47	38	33	31	87
Transport & Storage	*620*	*%*	60	49	40	38	34	23	21	79
Information & Communications	*622*	*%*	63	46	37	41	32	27	17	77
Financial Services	*479*	*%*	75	61	44	55	42	25	21	85
Business Services	*2,613*	*%*	68	52	42	42	36	26	20	83
Public Admin.	*218*	*%*	73	49	41	45	40	30	19	88
Education	*1,290*	*%*	75	67	60	63	43	38	19	91
Health & Social Work	*1,505*	*%*	76	66	55	56	38	34	25	90
Arts & Other Services	*1,219*	*%*	67	53	46	39	32	30	16	83

Base: All establishments with skills gaps

Table A.4.11 Need for upskilling by country, size and sector

	% of establishments with a need for upskilling			
	2013		2017	
	Unweighted base	*%*	*Unweighted base*	*%*
UK	*45,644*	71	*43,437*	63
Country				
England	*37,559*	70	*35,490*	62
Northern Ireland	*2,015*	72	*1,945*	62
Scotland	*3,044*	74	*3,064*	69
Wales	*3,026*	72	*2,938*	63
Size				
2 to 4	*9,532*	65	*8,568*	57
5 to 24	*25,704*	75	*23,171*	67
25 to 49	*5,545*	83	*6,341*	75
50 to 99	*2,802*	86	*3,195*	78
100-249	*1,472*	89	*1,624*	80
250+	*589*	90	*538*	82
Sector				
Primary Sector & Utilities	*2,372*	67	*2,420*	58
Manufacturing	*3,763*	62	*3,353*	58
Construction	*3,623*	62	*3,374*	55
Wholesale & Retail	*8,731*	69	*7,153*	61
Hotels & Restaurants	*4,359*	62	*4,174*	54
Transport & Storage	*2,074*	67	*2,074*	58
Information & Communications	*1,353*	82	*2,001*	71
Financial Services	*1,169*	83	*1,333*	72
Business Services	*6,939*	74	*6,798*	67
Public Admin.	*480*	84	*545*	80
Education	*2,907*	84	*2,790*	74
Health & Social Work	*4,221*	82	*3,929*	72
Arts & Other Services	*3,653*	72	*3,493*	59

Base: All establishments in Module 2.

Need for upskilling calculated as the percentage of establishments which mentioned any cause of a need for new skills.

Table A.4.12 Reasons for expected need for upskilling by country and size

	The development of new products and services		The introduction of new working practices		The introduction of new technologies or equipment		New legislative or regulatory requirements		Increased competitive pressure		The UK's decision to leave the EU		General training / CPD		Expected general business growth		Expected financial or economic pressures	
	2013	2017	2013	2017	2013	2017	2013	2017	2013	2017	2013	2017	2013	2017	2013	2017	2013	2017
UK	43	35	42	35	44	39	46	39	31	24	-	13	-	1	-	*	-	*
Country																		
England	43	35	42	35	44	38	45	38	31	24	-	13	-	1	-	*	-	*
Northern Ireland	40	32	43	36	47	39	47	39	32	25	-	17	-	2	-	*	-	*
Scotland	44	39	45	39	46	41	51	42	30	25	-	17	-	2	-	*	-	1
Wales	45	37	45	39	46	42	51	41	31	23	-	11	-	1	-	*	-	*
Size																		
2 to 4	38	31	35	29	40	35	41	34	27	21	-	12	-	1	-	*	-	*
5 to 24	47	39	47	40	45	40	48	41	34	26	-	13	-	2	-	*	-	1
25 to 49	52	44	58	49	54	50	58	49	37	30	-	16	-	2	-	*	-	1
50 to 99	55	46	63	51	62	55	63	53	42	32	-	17	-	2	-	*	-	1
100-249	56	49	64	54	67	58	65	56	47	34	-	21	-	2	-	*	-	1
250+	66	54	71	60	71	66	69	60	52	39	-	27	-	2	-	*	-	*

Base: All establishments in Module 2 (base sizes are the same as displayed in Table A.3.12).

'' denotes a figure greater than zero but smaller than 0.5; '-' denotes that the reason was not asked in 2013.*

Table A.4.13 Reasons for expected need for upskilling by sector

	The development of new products and services		The introduction of new working practices		The introduction of new technologies or equipment		New legislative or regulatory requirements		Increased competitive pressure		The UK's decision to leave the EU		General training / CPD		Expected general business growth		Expected financial or economic pressures	
	2013	2017	2013	2017	2013	2017	2013	2017	2013	2017	2013	2017	2013	2017	2013	2017	2013	2017
Sector																		
Primary Sector & Utilities	27	21	34	29	48	37	47	37	21	18	-	16	-	1	-	*	-	*
Manufacturing	40	34	33	29	41	37	35	30	27	24	-	12	-	1	-	*	-	*
Construction	34	28	38	32	38	34	43	36	24	17	-	7	-	1	-	*	-	*
Wholesale & Retail	48	41	43	34	45	40	38	32	35	28	-	13	-	1	-	*	-	*
Hotels & Restaurants	39	32	41	34	31	28	40	32	30	24	-	14	-	1	-	*	-	*
Transport & Storage	39	29	37	33	46	35	45	35	28	24	-	16	-	2	-	*	-	*
Information & Communications	67	49	34	29	72	57	36	30	42	30	-	14	-	1	-	*	-	*
Financial Services	61	45	52	40	48	37	68	60	39	24	-	18	-	2	-	*	-	*
Business Services	42	36	39	35	45	41	51	45	33	25	-	16	-	1	-	*	-	*
Public Admin.	47	33	63	56	53	53	67	62	27	14	-	18	-	2	-	*	-	1
Education	40	36	59	48	52	42	65	55	27	24	-	13	-	3	-	*	-	1
Health & Social Work	45	35	59	49	42	39	61	54	32	23	-	12	-	3	-	*	-	1
Arts & Other Services	47	35	44	34	45	35	40	31	29	20	-	10	-	2	-	1	-	*

Base: All establishments in Module 2 (base sizes are the same as displayed in Table A.3.12).

'' denotes a figure greater than zero but smaller than 0.5; '-' denotes that the reason was not asked in 2013*

Chapter 5: Training and workforce development

Table A.5.1 Proportion of employers providing any training (2011-2017), by country, size and sector

	2011		2013		2015		2017	
	Unwtd. base	Any training	*Unwtd. base*	Any training	*Unwtd. base*	Any training	*Unwtd. base*	Any training
		%		%		%		%
UK	*86,522*	65	*91,279*	66	*91,210*	66	*87,430*	66
Country								
England	*74,156*	65	*75,255*	66	*75,129*	66	*71,527*	66
Northern Ireland	*3,921*	65	*4,014*	63	*4,019*	62	*3,973*	63
Scotland	*2,487*	73	*6,014*	70	*6,035*	71	*6,017*	71
Wales	*5,958*	63	*5,996*	62	*6,027*	63	*5,913*	62
Size								
2 to 4	*17,905*	51	*19,058*	52	*20,527*	51	*17,132*	53
5 to 24	*47,770*	77	*51,565*	77	*49,584*	78	*46,936*	78
25 to 49	*10,239*	92	*10,947*	93	*11,657*	92	*12,526*	92
50 to 99	*5,712*	95	*5,584*	95	*5,836*	95	*6,456*	95
100-249	*3,270*	96	*2,938*	97	*2,689*	96	*3,302*	96
250+	*1,626*	97	*1,187*	97	*917*	97	*1,078*	96
Sector								
Primary Sector & Utilities	*2,512*	54	*4,693*	52	*4,844*	52	*4,905*	53
Manufacturing	*7,653*	61	*7,422*	59	*6,827*	63	*6,578*	62
Construction	*6,576*	58	*7,202*	56	*7,474*	57	*6,846*	59
Wholesale & Retail	*15,163*	60	*17,287*	61	*16,126*	60	*14,514*	61
Hotels & Restaurants	*8,421*	61	*8,888*	62	*8,920*	63	*8,478*	64
Transport & Storage	*4,685*	58	*4,182*	61	*4,680*	63	*4,075*	61
Information & Communications	*3,125*	67	*2,708*	66	*4,256*	60	*3,976*	60
Financial Services	*1,853*	76	*2,330*	77	*2,549*	74	*2,678*	78
Business Services	*14,297*	67	*14,011*	67	*13,143*	68	*13,713*	68
Public Admin.	*1,584*	90	*942*	90	*947*	90	*1,162*	90
Education	*5,422*	91	*5,796*	92	*5,515*	93	*5,525*	91
Health & Social Work	*8,067*	89	*8,460*	89	*8,556*	88	*7,952*	87
Arts & Other Services	*7,164*	69	*7,358*	69	*7,373*	70	*7,028*	68

Base: All establishments

Table A.5.2 Proportion of employers providing any training (2011-2017)

	2011		2013		2015		2017	
	Any off-job training	Any on-job training	Any off-job training	Any on-job training	Any off-job training	Any on-job training	Any off-job training	Any on-job training
	%	%	%	%	%	%	%	%
UK	47	53	49	52	49	53	48	53
Country								
England	46	52	48	52	48	52	48	53
Northern Ireland	48	50	49	47	47	49	47	48
Scotland	53	60	53	57	52	58	51	58
Wales	47	50	47	48	49	49	47	48
Size								
2 to 4	34	38	36	37	35	37	36	40
5 to 24	56	64	58	63	58	64	57	64
25 to 49	75	83	77	83	76	83	76	83
50 to 99	82	87	83	88	82	88	81	87
100-249	84	91	87	92	85	91	85	91
250+	87	94	89	93	86	92	87	92
Sector								
Primary Sector & Utilities	40	39	43	33	43	34	42	36
Manufacturing	43	48	43	45	46	50	45	50
Construction	46	38	45	37	46	38	47	40
Wholesale & Retail	36	50	40	50	39	48	39	50
Hotels & Restaurants	38	50	39	51	40	52	40	54
Transport & Storage	39	44	44	44	47	49	42	48
Information & Communications	47	54	48	53	42	48	41	48
Financial Services	52	67	54	66	53	64	58	66
Business Services	50	52	51	52	51	53	50	54
Public Admin.	73	81	73	79	74	78	75	77
Education	80	81	80	82	82	84	79	82
Health & Social Work	73	78	75	77	72	77	70	75
Arts & Other Services	50	56	52	56	51	58	49	57

Base: All establishments (base sizes are the same as displayed in Table A.5.1)

Table A.5.3 Number employed and trained over the last 12 months by sector, and the proportion of the workforce trained

	2011	2013	2015		2017		
	% of staff trained	% of staff trained	% of staff trained	*Unwtd. base*	Number employed (000s)	Number trained (000s)	% of staff trained
Primary Sector & Utilities	46	52	48	*2,961*	778	402	52
Manufacturing	46	50	52	*4,839*	2,405	1,168	49
Construction	49	48	53	*5,035*	1,209	605	50
Wholesale & Retail	52	55	55	*10,753*	4,574	2,674	58
Hotels & Restaurants	55	59	64	*6,493*	2,135	1,331	62
Transport & Storage	43	60	57	*2,753*	1,318	675	51
Information & Communications	44	50	53	*2,782*	1,018	540	53
Financial Services	59	67	71	*2,170*	943	678	72
Business Services	52	60	60	*11,009*	5,364	3,238	60
Public Admin.	61	67	74	*1,030*	1,290	757	59
Education	65	76	75	*5,308*	2,593	1,974	76
Health & Social Work	66	80	78	*7,369*	3,889	3,066	79
Arts & Other Services	55	63	61	*5,448*	1,345	802	60

Base: Establishments that had funded or arranged training in the previous 12 months.

Note: '% 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.5.4 Unweighted base sizes for Figure 5.3 in main report

	2013	2015	2017
Occupation			
Managers	87,946	87,590	83,848
Professionals	17,407	17,483	19,574
Associate professionals	12,577	13,309	15,147
Administrative / clerical staff	53,759	53,622	54,285
Skilled trades occupations	23,644	24,025	22,628
Caring, leisure and other services	14,017	15,310	14,042
Sales and customer services	27,417	25,940	25,465
Machine operatives	14,059	14,105	14,797
Elementary staff	32,192	31,970	30,744

Base: All establishments with staff in each occupation (excluding establishments where the number of staff are unknown)

Table A.5.5 Unweighted base sizes for Tables 5.2 and 5.3 in main report

	2011	2013	2015	2017
UK	66,439	69,842	69,541	67,950
Country				
England	56,713	57,787	57,422	55,775
Northern Ireland	2,903	2,894	2,869	2,893
Scotland	2,170	4,884	4,894	4,999
Wales	4,653	4,277	4,356	4,283
Size				
2 to 4	9,121	9,580	10,317	8,798
5 to 24	37,758	40,801	39,461	37,207
25 to 49	9,416	10,123	10,742	11,577
50 to 99	5,416	5,315	5,547	6,145
100-249	3,150	2,864	2,584	3,181
250+	1,578	1,159	890	1,042

Base: Establishments that had funded or arranged training in the previous 12 months

Table A.5.6 Average training days over the last 12 months per person trained

			Average days training per person trained					
	Unwtd. base		1 day or less	2	3-4	5-6	7-10	11+
UK	*67,950*	%	14	16	20	16	12	15
Country								
England	*55,775*	%	14	16	20	15	12	15
Northern Ireland	*2,893*	%	14	16	25	18	11	10
Scotland	*4,999*	%	13	16	21	16	11	16
Wales	*4,283*	%	14	16	19	18	11	15
Size								
2 to 4	*8,798*	%	15	15	20	17	12	16
5 to 24	*37,207*	%	14	16	20	15	12	15
25 to 49	*11,577*	%	13	17	19	15	11	15
50 to 99	*6,145*	%	15	16	19	15	10	13
100-249	*3,181*	%	15	17	18	15	8	12
250+	*1,042*	%	15	18	19	13	9	9
Sector								
Primary Sector & Utilities	*2,961*	%	17	22	23	14	8	9
Manufacturing	*4,839*	%	16	18	19	14	9	15
Construction	*5,035*	%	14	16	21	16	11	16
Wholesale & Retail	*10,753*	%	16	16	19	14	12	16
Hotels & Restaurants	*6,493*	%	18	14	18	11	11	19
Transport & Storage	*2,753*	%	21	19	19	13	9	12
Information & Communications	*2,782*	%	12	16	17	17	14	16
Financial Services	*2,170*	%	9	14	17	19	15	18
Business Services	*11,009*	%	13	15	20	18	12	15
Public Admin.	*1,030*	%	12	19	21	15	9	15
Education	*5,308*	%	11	17	23	22	11	9
Health & Social Work	*7,369*	%	9	13	21	17	14	16
Arts & Other Services	*5,448*	%	15	16	20	15	11	16

Base: Establishments that had funded or arranged training in the previous 12 months.

Table A.5.7 Total training and development days, and days per person trained, and per employee, by sector (2011 – 2017)

	2011				2013				2015				2017			
	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	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	*67,950*	114m	6.4	4.0
Sector																
Primary Sector & Utilities	*1,760*	2.4m	7.5	3.5	*2,691*	2.7m	7.2	3.8	*2,807*	1.8m	5.3	2.5	*2,961*	1.8m	4.6	2.4
Manufacturing	*5,308*	8.9m	7.7	3.6	*5,128*	6.2m	5.4	2.7	*4,915*	7.5m	6.1	3.2	*4,839*	7.4m	6.3	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	*5,035*	4.0m	6.5	3.3
Wholesale & Retail	*11,001*	20.0m	8.7	4.5	*12,425*	19.4m	7.9	4.4	*11,470*	19.0m	7.7	4.2	*10,753*	17.7m	6.6	3.9
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	*6,493*	11.9m	9.0	5.6
Transport & Storage	*3,085*	3.5m	6.3	2.7	*2,895*	3.3m	4.4	2.6	*3,103*	3.8m	5.5	3.1	*2,753*	3.0m	4.4	2.3
Information & Communications	*2,345*	2.7m	6.9	3.1	*2,044*	3.6m	8.2	4.1	*2,878*	2.8m	5.2	2.8	*2,782*	2.7m	4.9	2.6
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	*2,170*	3.6m	5.3	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	*11,009*	18.2m	5.6	3.4
Public Admin.	*1,444*	9.4m	9.9	6.0	*861*	7.4m	7.7	5.2	*851*	5.1m	5.2	3.8	*1,030*	7.3m	9.6	5.7
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	*5,308*	9.9m	5.0	3.8
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	*7,369*	21.7m	7.1	5.6
Arts & 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	*5,448*	5.4m	6.7	4.0

Base: Establishments that had funded or arranged training in the previous 12 months

Table A.5.8 Types of training provided over the last 12 months (prompted)

	Unwtd. base		Job specific	Health & Safety	Basic induction*	New technology	Extensive induction*	Management
UK 2011	*66,439*	%	85	75	n/a	47	n/a	35
UK 2013	*69,842*	%	85	74	n/a	48	n/a	35
UK 2015	*69,541*	%	85	75	66	49	37	37
UK 2017	*67,950*	%	84	74	65	48	36	35
Country								
England	*55,775*	%	83	74	65	47	36	35
Northern Ireland	*2,893*	%	84	76	63	48	34	34
Scotland	*4,999*	%	86	74	63	50	34	34
Wales	*4,283*	%	86	74	66	48	38	36
Size								
2 to 4	*8,798*	%	79	61	47	46	24	22
5 to 24	*37,207*	%	85	80	74	46	40	38
25 to 49	*11,577*	%	91	92	89	53	54	58
50 to 99	*6,145*	%	93	95	93	60	58	66
100-249	*3,181*	%	94	96	94	70	65	76
250+	*1,042*	%	95	96	96	76	67	88
Sector								
Primary Sector & Utilities	*2,961*	%	81	72	43	41	21	18
Manufacturing	*4,839*	%	82	80	67	50	35	28
Construction	*5,035*	%	76	80	54	36	24	22
Wholesale & Retail	*10,753*	%	85	78	70	51	39	41
Hotels & Restaurants	*6,493*	%	83	85	80	34	47	48
Transport & Storage	*2,753*	%	84	73	66	42	35	32
Information & Communications	*2,782*	%	79	49	54	71	27	24
Financial Services	*2,170*	%	89	58	58	56	36	36
Business Services	*11,009*	%	84	59	57	53	31	29
Public Admin.	*1,030*	%	92	77	72	56	41	50
Education	*5,308*	%	91	91	79	51	47	56
Health & Social Work	*7,369*	%	88	88	78	42	49	48
Arts & Other Services	*5,448*	%	83	75	63	43	34	29

Base: Establishments that had funded or arranged training in the previous 12 months.

n/a: since the 2015 survey induction training has been split between 'basic' and 'extensive' induction training, hence data from 2013 and 2011 is not comparable.

Table A.5.9 Percentage of training that has been health and safety or induction training (2011 – 2017)

	2011	*2013*	2015	2017				
	UK	*UK*	UK	UK	England	Northern Ireland	Scotland	Wales
Unweighted base				*67,950*	*55,775*	*2,893*	*4,999*	*4,283*
	%	*%*	%	%	%	%	%	%
Less than 20%	*23*	*28*	25	24	24	23	27	25
20-49%	*24*	*22*	23	21	21	23	23	21
50-80%	*18*	*15*	17	17	17	18	16	19
More than 80% but not all	*5*	*3*	4	4	4	4	3	4
All of it (100%)	*7*	*9*	11	12	13	12	10	10
None	*18*	*19*	15	16	17	16	17	16
Don’t know	*5*	*3*	5	5	5	5	4	5

Base: Establishments that had funded or arranged training in the previous 12 months

Table A.5.10 Training to nationally recognised qualifications in the last 12 months among employers that train

	Unwtd. base	Any staff trained to a qualification	Number trained to a qualification	% of all trainees trained to a qualification	% of all employees trained to a qualification
		%		%	%
UK	*67,950*	45	3.2m	18	11
Size					
2 to 4	8,798	35	0.3m	26	11
5 to 24	37,207	49	0.9m	24	14
25 to 49	11,577	62	0.5m	22	14
50 to 99	6,145	68	0.4m	19	12
100-249	3,181	72	0.5m	16	11
250+	1,042	74	0.6m	11	8
Sector					
Primary Sector & Utilities	2,961	46	0.1m	25	13
Manufacturing	4,839	43	0.2m	18	9
Construction	5,035	51	0.2m	33	17
Wholesale & Retail	10,753	38	0.3m	12	7
Hotels & Restaurants	6,493	50	0.2m	18	11
Transport & Storage	2,753	39	0.1m	20	10
Information & Communications	2,782	31	*	9	5
Financial Services	2,170	51	0.1m	14	10
Business Services	11,009	39	0.5m	16	10
Public Admin.	1,030	56	0.1m	14	8
Education	5,308	66	0.3m	13	10
Health & Social Work	7,369	61	0.8m	26	21
Arts & Other Services	5,448	46	0.2m	23	14

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.5.11 Whether establishment has funded or arranged online training or e-learning, or other self-learning, over the past 12 months

	2015				2017			
	Unwtd. base	% funding or arranging online	% funding or arranging other	% funding or arranging either	Unwtd. base	% funding or arranging online	% funding or arranging other	% funding or arranging either
UK	*69,541*	45	38	57	*67,950*	51	42	62
Country								
England	*57,422*	45	39	57	*55,775*	52	43	63
Northern Ireland	*2,869*	34	35	48	*2,893*	38	34	50
Scotland	*4,894*	44	36	55	*4,999*	51	41	61
Wales	*4,356*	43	37	56	*4,283*	50	41	62
Size								
2 to 4	*10,317*	35	32	48	*8,798*	41	36	53
5 to 24	*39,461*	47	39	58	*37,207*	55	43	65
25 to 49	*10,742*	61	51	72	*11,577*	67	53	76
50 to 99	*5,547*	62	56	74	*6,145*	71	58	80
100-249	*2,584*	70	60	81	*3,181*	75	61	84
250+	*890*	78	65	87	*1,042*	80	67	88
Sector								
Primary Sector & Utilities	*2,807*	18	22	31	*2,961*	23	24	35
Manufacturing	*4,915*	29	24	39	*4,839*	33	30	46
Construction	*5,044*	30	25	42	*5,035*	38	29	49
Wholesale & Retail	*11,470*	41	34	52	*10,753*	52	40	62
Hotels & Restaurants	*6,849*	49	39	61	*6,493*	57	43	65
Transport & Storage	*3,103*	30	29	42	*2,753*	35	28	45
Information & Communications	*2,878*	53	51	69	*2,782*	56	52	70
Financial Services	*1,920*	71	54	80	*2,170*	73	60	84
Business Services	*10,623*	48	40	60	*11,009*	52	44	64
Public Admin.	*851*	67	55	79	*1,030*	68	53	75
Education	*5,300*	65	55	76	*5,308*	75	56	82
Health & Social Work	*7,941*	62	55	75	*7,369*	69	59	79
Arts & Other Services	*5,840*	35	36	51	*5,448*	42	37	55

Base: Establishments that had funded or arranged training in the previous 12 months.

Table A.5.12 Total training expenditure and training spend per person trained and per employee by country and size (2011 - 2017), in 2017 prices

	2011			2013			2015			2017		
	Total	Per trainee	Per employee	Total	Per trainee	Per employee	Total	Per trainee	Per employee	Total	Per trainee	Per employee
	£	£	£	£	£	£	£	£	£	£	£	£
UK	43.8bn	2,970	1,620	41.1bn	2,450	1,520	43.6bn	2,500	1,570	44.2bn	2,470	1,530
Country												
England	37.2bn	3,020	1,640	34.8bn	2,460	1,530	37.3bn	2,540	1,590	37.5bn	2,460	1,530
Northern Ireland	1.2bn	2,870	1,600	1.1bn	2,540	1,490	0.9bn	2,000	1,280	1.0bn	2,340	1,410
Scotland	3.8bn	2,770	1,600	3.4bn	2,250	1,450	3.3bn	2,220	1,390	3.7bn	2,420	1,510
Wales	1.6bn	2,480	1,390	1.9bn	2,580	1,600	2.1bn	2,710	1,730	2.0bn	2,790	1,610
Size												
2-4	5.6bn	5,860	2,350	5.4bn	5,500	2,260	5.8bn	5,740	2,440	6.3bn	5,650	2,390
5-24	12.2bn	3,620	1,900	12.3bn	3,520	1,910	13.5bn	3,610	2,030	13.9bn	3,640	2,020
25-49	6.1bn	3,100	1,810	6.2bn	2,950	1,850	6.1bn	2,690	1,740	6.7bn	2,910	1,870
50-99	5.5bn	2,720	1,600	5.2bn	2,310	1,520	6.1bn	2,670	1,760	5.3bn	2,260	1,470
100+	14.4bn	2,250	1,270	11.9bn	1,500	1,050	12.0bn	1,480	1,020	12.0bn	1,440	990

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.5.13 Total training expenditure and training spend per person trained and per employee by sector (2011 - 2017), in 2017 prices

	2011			2013			2015			2017		
	Total	Per trainee	Per employee	Total	Per trainee	Per employee	Total	Per trainee	Per employee	Total	Per trainee	Per employee
	£	£	£	£	£	£	£	£	£	£	£	£
UK	43.8bn	2,970	1,620	41.1bn	2,450	1,520	43.6bn	2,500	1,570	44.2bn	2,470	1,53
Sector												
Primary Sector & Utilities	1.6bn	4,980	2,280	0.8bn	2,190	1,150	1.3bn	3,930	1,870	1.1bn	2,670	1,38
Manufacturing	3.2bn	2,860	1,320	2.4bn	2,110	1,060	2.9bn	2,340	1,210	3.0bn	2,550	1,24
Construction	2.4bn	3,610	1,780	2.4bn	4,010	1,940	2.4bn	3,910	2,080	2.7bn	4,510	2,25
Wholesale & Retail	5.0bn	2,170	1,130	6.0bn	2,450	1,360	4.8bn	1,950	1,070	6.4bn	2,410	1,41
Hotels & Restaurants	2.9bn	3,080	1,680	2.5bn	2,310	1,370	3.1bn	2,480	1,590	3.1bn	2,310	1,44
Transport & Storage	2.0bn	3,650	1,580	1.3bn	1,770	1,050	1.4bn	2,030	1,160	1.5bn	2,290	1,17
Information & Comms	1.1bn	2,970	1,320	1.8bn	4,100	2,070	1.8bn	3,300	1,770	1.4bn	2,650	1,40
Financial Services	1.4bn	2,360	1,390	1.2bn	1,770	1,190	1.5bn	2,160	1,540	1.3bn	1,860	1,34
Business Services	8.3bn	3,700	1,910	8.1bn	2,990	1,810	9.4bn	3,270	1,960	9.7bn	2,990	1,80
Public Administration	3.1bn	3,290	1,990	2.0bn	2,110	1,420	1.9bn	1,910	1,410	2.2bn	2,940	1,73
Education	5.0bn	3,030	1,960	5.4bn	2,740	2,090	4.5bn	2,290	1,720	3.8bn	1,930	1,47
Health & Social Work	5.3bn	2,290	1,520	5.1bn	1,770	1,410	5.9bn	1,990	1,550	5.6bn	1,820	1,43
Arts & Other Services	2.3bn	3,500	1,930	2.0bn	2,620	1,640	2.6bn	3,380	2,050	2.4bn	2,970	1,77

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 (in 2017 prices)

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	*12,466*	£3.5bn	£536m	%	15
Country					
England	*8,872*	£3.1bn	£463m	%	15
Northern Ireland	*859*	£0.1bn	£9m	%	13
Scotland	*1,407*	£0.3bn	£42m	%	16
Wales	*1,328*	£0.1bn	£22m	%	18
Size					
2 to 4	*2,090*	£0.6bn	£110m	%	18
5 to 24	*6,988*	£1.1bn	£170m	%	16
25 to 49	*1,885*	£0.5bn	£61m	%	12
50 to 99	*947*	£0.4bn	£54m	%	13
100+	*556*	£0.9bn	£141m	%	15
Sector					
Primary Sector & Utilities	*546*	£0.1bn	£17m	%	17
Manufacturing	*807*	£0.3bn	£40m	%	15
Construction	*857*	£0.3bn	£51m	%	17
Wholesale & Retail	*1,670*	£0.5bn	£75m	%	17
Hotels & Restaurants	*1,011*	£0.1bn	£18m	%	14
Transport & Storage	*534*	£0.1bn	£10m	%	11
Information & Communications	*573*	£0.2bn	£15m	%	10
Financial Services	*390*	£0.1bn	£13m	%	14
Business Services	*2,373*	£0.9bn	£173m	%	18
Public Admin.	*256*	£0.2bn	£21m	%	13
Education	*895*	£0.3bn	£42m	%	15
Health & Social Work	*1,478*	£0.4bn	£48m	%	12
Arts & Other Services	*1,076*	£0.2bn	£15m	%	9

Base: Establishments completing the Investment in Training study.

Table A.5.15 Unweighted base sizes for all establishments training, by country, size and sector (2011 – 2017)

	2011	2013	2015	2017
UK	11,027	12,522	12,614	12,466
Country				
England	74,156	75,255	75,129	8,872
Northern Ireland	3,921	4,014	4,019	859
Scotland	2,487	6,014	6,035	1,407
Wales	5,958	5,996	6,027	1,328
Size				
2 to 4	1,774	2,317	1,963	2,090
5 to 24	6,542	6,953	7,661	6,988
25 to 49	1,452	1,722	1,779	1,885
50 to 99	708	928	782	947
100+	551	602	429	556
Sector				
Primary Sector & Utilities	253	480	463	546
Manufacturing	816	882	937	807
Construction	655	906	826	857
Wholesale & Retail	1,815	1,971	1,813	1,670
Hotels & Restaurants	1,055	1,092	1,273	1,011
Transport & Storage	482	541	556	534
Information & Communications	380	414	579	573
Financial Services	220	369	344	390
Business Services	2,036	2,341	2,073	2,373
Public Admin.	231	211	176	256
Education	558	630	678	895
Health & Social Work	1,515	1,572	1,790	1,478
Arts & Other Services	1,011	1,113	1,106	1,076

Base: Establishments completing the Investment in Training study.

Table A.5.16 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				
	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 subject areas we need	Difficulty finding providers to deliver where and when we want
UK	*67,950*	45	*31,525*	%	51	50	15	5	5
Country									
England	*55,775*	44	*25,481*	%	51	49	15	5	4
Northern Ireland	*2,893*	47	*1,422*	%	58	51	16	4	6
Scotland	*4,999*	51	*2,598*	%	50	58	12	5	8
Wales	*4,283*	46	*2,024*	%	57	51	14	6	7
Size									
2 to 4	*8,798*	40	*3,477*	%	52	49	15	5	5
5 to 24	*37,207*	46	*16,787*	%	49	51	14	5	4
25 to 49	*11,577*	50	*5,782*	%	54	50	14	4	4
50 to 99	*6,145*	51	*3,112*	%	56	51	14	4	3
100-249	*3,181*	54	*1,735*	%	59	53	12	3	3
250+	*1,042*	61	*632*	%	67	50	11	2	3
Sector									
Primary Sector & Utilities	*2,961*	36	*1,122*	%	50	52	12	8	8
Manufacturing	*4,839*	40	*2,084*	%	50	53	14	7	5
Construction	*5,035*	39	*1,994*	%	54	52	12	4	5
Wholesale & Retail	*10,753*	47	*4,983*	%	39	54	16	4	4
Hotels & Restaurants	*6,493*	49	*3,386*	%	45	42	15	4	3
Transport & Storage	*2,753*	42	*1,157*	%	49	48	17	4	4
Information & Communications	*2,782*	45	*1,318*	%	55	51	19	5	3
Financial Services	*2,170*	35	*757*	%	36	58	18	4	4
Business Services	*11,009*	40	*4,494*	%	51	53	17	4	4
Public Admin.	*1,030*	48	*478*	%	56	50	14	6	8
Education	*5,308*	57	*3,135*	%	74	47	9	4	5
Health & Social Work	*7,369*	50	*3,759*	%	61	48	11	6	8
Arts & Other Services	*5,448*	51	*2,858*	%	62	43	15	6	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.5.17 Reasons for not funding or arranging training over the last 12 months (unprompted)

	2011	2013	2015	2017				
	UK	UK	UK	UK	England	Northern Ireland	Scotland	Wales
Unweighted base	*19,363*	*20,704*	*20,719*	*18,293*	*14,731*	*1,041*	*956*	*1,565*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*
All our staff are fully proficient / no need for training	64	69	68	67	66	71	70	70
No money available for training	11	10	7	7	7	7	6	8
Training is not a priority for the establishment	9	7	7	9	9	6	9	7
No training available in relevant subject area	7	5	5	4	4	5	3	3
Managers have lacked the time to organise training	3	3	2	3	3	2	3	3
Employees are too busy to undertake training	2	2	2	2	2	2	1	3
Employees are too busy to give training	1	2	2	1	1	1	2	2
External courses are too expensive	2	2	1	1	1	1	2	2
Learn by experience / as you go	3	2	3	2	2	3	2	4
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	2	2	1	1	2
Trained staff will be poached by other employers	1	1	1	1	1	1	1	1
Courses interested in not available	1	1	1	1	1	*	1	2
No new staff (only train new staff)	*	1	*	1	1	*	*	*
No particular reason	5	5	6	6	6	5	6	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.5.18a Incidence of wider development activities among non-trainers, by country and sizeband

						2011	2013	2015	2017			
	2011 Unwtd. base	*2013 Unwtd. base*	*2015 Unwtd. base*	*2017 Unwtd. base*		Any wider development activities	Any wider development activities	Any wider development activities	Any wider development activities	*Supervision guiding employee through their job role*	*Opportunities for staff to watch others carry out their roles*	*Allowed to perform tasks beyond their job roles*
UK	*20,083*	*21,437*	*21,669*	*18,293*	%	66	68	68	65	52	49	48
Country												
England	*17,443*	*17,468*	*17,707*	*14,731*	%	66	69	69	66	53	49	48
Northern Ireland	*1,018*	*1,120*	*1,150*	*1,041*	%	69	65	71	61	49	46	45
Scotland	*317*	*1,130*	*1,141*	*956*	%	65	66	67	65	52	46	45
Wales	*1,305*	*1,719*	*1,671*	*1,565*	%	59	61	64	60	49	46	44
Size												
2 to 4	*8,784*	*9,478*	*10,210*	*8,181*	%	60	63	62	60	46	42	43
5 to 24	*10,012*	*10,764*	*10,123*	*9,034*	%	81	83	84	82	71	68	61
25 to 49	*823*	*824*	*915*	*774*	%	86	89	93	90	84	78	68
50 to 99	*296*	*269*	*289*	*210*	%	90	90	92	88	79	76	66
100-249	*120*	*74*	*105*	*74*	%	92	91	95	89	82	78	61
250+	*48*	*28*	*27*	*20*	%	95	**	**	**	**	**	**

Base: Establishments that had not funded or arranged training or development in the previous 12 months.

*** denotes a figure not shown due to a low base size of fewer than 30 establishments*

Note: In previous years, the incidence of wider development activities among was asked of all establishments –this year, the question was only asked of non-training establishments. In order to maintain comparability, figures from previous years have been adjusted to reflect the responses on non-trainers only.

Table A.5.18b Incidence of wider development activities among non-trainers, by sector

						2011	2013	2015	2017			
	2011 Unwtd. base	*2013 Unwtd. base*	*2015 Unwtd. base*	*2017 Unwtd. base*		Any wider development activities	Any wider development activities	Any wider development activities	Any wider development activities	*Supervision guiding employee through their job role*	*Opportunities for staff to watch others carry out their roles*	*Allowed to perform tasks beyond their job roles*
UK	*20,083*	*21,437*	*21,669*	*18,293*	%	66	68	68	65	52	49	48
Sector												
Primary Sector & Utilities	*752*	*2002*	*2037*	*1,905*	%	54	53	50	51	39	37	33
Manufacturing	*2,345*	*2294*	*1912*	*1,664*	%	63	66	67	62	47	45	46
Construction	*2,177*	*2425*	*2430*	*1,741*	%	57	59	62	56	45	39	34
Wholesale & Retail	*4,162*	*4862*	*4656*	*3,535*	%	69	74	72	69	56	53	52
Hotels & Restaurants	*2,236*	*2127*	*2071*	*1,830*	%	71	75	78	74	64	58	54
Transport & Storage	*1,600*	*1287*	*1577*	*1,261*	%	62	68	67	61	50	44	39
Information & Communications	*780*	*664*	*1378*	*1,122*	%	68	70	65	66	47	46	54
Financial Services	*393*	*506*	*629*	*487*	%	76	75	71	69	58	48	50
Business Services	*3,029*	*2884*	*2520*	*2,490*	%	65	68	68	66	51	48	50
Public Admin.	*140*	*81*	*96*	*116*	%	75	87	80	80	66	67	59
Education	*305*	*228*	*215*	*169*	%	70	77	82	71	57	59	60
Health & Social Work	*583*	*525*	*615*	*474*	%	77	82	81	85	77	65	66
Arts & Other Services	*1,581*	*1552*	*1533*	*1,499*	%	70	73	74	67	52	49	47

Base: Establishments that had not funded or arranged training or development in the previous 12 months.

Note: In previous years, the incidence of wider development activities among was asked of all establishments –this year, the question was only asked of non-training establishments. In order to maintain comparability, figures from previous years have been adjusted to reflect the responses on non-trainers only.

Chapter 6: High Performance Working practices and product market strategies

Table A.6.1 Adoption of practices by sector

		14+ out of 21 HPW practices	Equal opportunity policy	On or off job training	Annual performance review	Business plan	Task variety	Training needs assessment	Training plan	Task discretion	Formally assess performance after training	Flexible working	Awards performance related bonuses	Training budget	Flexible benefits	Individual performance related pay
	Unwtd. base	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
UK	*53,993*	9	*82*	67	66	57	52	51	48	47	43	40	38	37	36	32
Sector																
Primary Sector & Utilities	*2,842*	3	62	53	34	48	63	34	30	53	28	47	21	21	22	17
Manufacturing	*7,147*	7	80	63	60	55	47	47	40	44	37	34	40	30	33	30
Construction	*5,304*	3	74	59	45	34	54	42	35	50	32	36	32	24	26	25
Wholesale & Retail	*36,205*	9	84	62	67	56	47	48	49	41	42	33	49	32	41	34
Hotels & Restaurants	*18,824*	11	82	66	65	53	39	51	54	36	49	50	40	34	31	30
Transport & Storage	*4,142*	8	83	64	62	51	41	48	48	41	40	34	37	34	32	28
Information & Communications	*4,582*	5	77	62	63	59	63	39	33	63	31	56	46	31	41	41
Financial Services	*4,621*	12	87	82	85	78	48	66	66	45	55	40	50	46	49	43
Business Services	*34,437*	8	84	68	69	60	55	49	46	51	40	43	46	38	41	41
Public Admin.	*4,716*	25	95	91	92	77	57	79	72	41	65	48	17	78	48	25
Education	*10,845*	18	97	92	94	78	56	81	74	43	75	25	18	72	42	37
Health & Social Work	*20,832*	15	97	89	92	76	55	78	78	46	71	38	22	62	40	23
Arts & Other Services	*8,140*	6	85	69	68	57	54	52	48	50	45	43	28	40	32	26

Base: All establishments in Module 1.

Note: Table displays all HPW practices adopted by 30% or more of establishments in Module 1.

Table A.6.2 HPW status by size

	HPW: Yes	HPW: No
Unwtd. base	*6,476*	*37,517*
	%	*%*
2 to 4	17	57
5 to 24	46	36
25 to 49	16	4
50 to 99	10	2
100-249	7	1
250+	4	*

Base: All establishments in Module 1.

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

Table A.6.3 HPW status by multi- or single-site

	Unwtd. base		Single site	Multi-site (head office)	Multi-site (not head office)	Multi-site (don't know if head office)	All multi-site
HPW - Yes	*6,476*	*%*	31	12	57	*	69
HPW - No	*37,517*	*%*	70	8	22	*	30

Base: All establishments in Module 1.

Note: '' denotes a figure greater than zero but smaller than 0.5.*
Table shows row percentages.

Table A.6.4 Characteristics of CUSP employers

	HPW	CUSP	Not HPW (excluding CUSP group)
Characteristics of employers			
Unwtd. base	*6,476*	*14,754*	*22,763*
	%	*%*	*%*
Employers with vacancies	41	29	13
Employers with HtF vacancies (base: employers with vacancies)	34	37	41
Employers with skills gaps	22	17	11
Impact of skills gaps			
Unwtd. base	*1,691*	*3,642*	*3,861*
	%	%	%
Major	17	17	17
Minor	54	50	48
None	28	33	35

Base: All establishments in Module 1.

Table A.6.5 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 as % of vacancies	SSVs as % of vacancies	SSVs as % of HtFVs
	Unweighted base	*%*	*%*	*%*	*%*	*%*	*%*
HPW Employers							
2-4	195	30	15	11	37	25	69
5-24	2789	33	11	8	33	23	71
25-49	1571	48	15	11	26	17	68
50-99	966	57	17	13	30	21	70
100-249	680	71	22	19	15	12	79
250+	275	73	25	19	27	11	40
5-99	5326	39	12	9	30	21	70
Non-HPW Employers							
2-4	8,369	10	5	4	49	36	73
5-24	20,976	23	9	7	39	26	67
25-49	4,614	43	17	12	36	22	61
50-99	2,295	54	20	14	29	19	63
100-249	998	66	23	17	27	18	65
250+	265	76	26	19	34	21	61
5-99	27,885	27	11	8	36	24	65

Base: All establishments in Module 1.

'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.6.6 Training activity among HPW employers and non-HPW employers by size and sector

		Any training	Proportion of staff trained
	Unwtd. base	*%*	*%*
Size			
HPW Employers			
2 to 4	*195*	93	93
5 to 24	*2,789*	97	79
25 to 49	*1,571*	97	75
50 to 99	*966*	98	74
100-249	*680*	98	76
250+	*275*	98	69
5-99	*5,326*	97	76
Non-HPW Employers			
2 to 4	*8,369*	53	42
5 to 24	*20,976*	76	54
25 to 49	*4,614*	91	61
50 to 99	*2,295*	94	63
100-249	*998*	94	68
250+	*265*	94	64
5-99	*27,885*	79	58
Sector			
HPW Employers			
Primary Sector & Utilities	*116*	99	82
Manufacturing	*345*	98	59
Construction	*232*	99	72
Wholesale & Retail	*1,336*	95	80
Hotels & Restaurants	*834*	96	83
Transport & Storage	*192*	94	59
Information & Communications	*187*	93	67
Financial Services	*159*	98	83
Business Services	*1,039*	96	71
Public Admin.	*127*	96	60
Education	*685*	99	77
Health & Social Work	*838*	99	80
Arts & Other Services	*386*	92	75
Non-HPW Employers			
Primary Sector & Utilities	*2,369*	52	48
Manufacturing	*2,880*	60	43
Construction	*3,240*	58	47
Wholesale & Retail	*6,025*	58	51
Hotels & Restaurants	*3,470*	63	56
Transport & Storage	*1,809*	61	52
Information & Communications	*1,788*	61	50
Financial Services	*1,186*	80	69
Business Services	*5,876*	65	59
Public Admin.	*490*	89	53
Education	*2,050*	90	74
Health & Social Work	*3,185*	87	76
Arts & Other Services	*3,149*	68	59

Base: All establishments in Module 1

Appendix B: National time series tables

The UK-wise ESS series was designed in such a way as to, where possible, preserve key time series measures from the surveys carried out previously by the individual nations.

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 from ESS 2013 onwards (2+ employment), therefore it is possible to make some comparisons over a longer time period. It should be noted that the weighting strategy of the NESS surveys was based on Sector Skills Council (SSC) defined sectors rather than the SIC sector groupings used in the ESS series, therefore some caution needs to be exercised when making sector 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 from ESS 2013 onwards, 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 from ESS 2013 onwards, 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 the ESS series, therefore some caution needs to be exercised when making comparisons with the 2005 data.

The tables below provide time series for key figures in the ESS survey, alongside those in the earlier legacy surveys, where appropriate.

England Time Series: Key Figures

	NESS 03	NESS 05	NESS 07	NESS 09	ESS 2011	ESS 2013	ESS 2015	ESS 2017
Vacancies and skill-shortage vacancies (SSVs)								
% of establishments with any vacancies	17%	17%	18%	12%	14%	15%	20%	**20%**
% of establishments with any hard-to-fill vacancies	8%	7%	7%	3%	5%	5%	8%	**8%**
% with SSVs	n/a	5%	5%	3%	3%	4%	6%	**6%**
% of all vacancies which are SSVs	n/a	25%	21%	16%	15%	22%	23%	**22%**
Number of vacancies	679,000	574,000	620,000	386,000	501,000	560,000	797,000	**873,000**
Number of hard-to-fill vacancies	271,000	204,000	184,000	85,000	107,000	160,000	262,000	**287,000**
Number of skill-shortage vacancies	135,000	143,000	130,000	63,000	77,000	125,000	180,000	**194,000**
Skills gaps								
% of establishments with any staff not fully proficient	22%	16%	15%	19%	17%	15%	14%	**13%**
Number of skills gaps	2.4m	1.26m	1.36m	1.70m	1.28m	1.17m	1.18m	**1.06m**
Number of staff not fully proficient as a % of employment	11%	6%	6%	7%	6%	5%	5%	**4%**
Training								
% of establishments training staff over the last 12 months	59%	65%	67%	68%	65%	66%	66%	**66%**
% of establishments providing off-the-job training in the last 12 months	n/a	46%	46%	51%	47%	48%	48%	**48%**
% of workforce trained	53%	61%	63%	56%	54%	62%	63%	**62%**
Total number of training days	n/a	n/a	n/a	109m	97m	95m	100m	**98m**

Northern Ireland Time Series: Key Figures

	ESS 2011	ESS 2013	ESS 2015	ESS 2017
Vacancies and skill-shortage vacancies (SSVs)				
% of establishments with any vacancies	10%	10%	13%	**16%**
% of establishments with any hard-to-fill vacancies	3%	3%	4%	**6%**
% with SSVs	2%	3%	3%	**5%**
% of all vacancies which are SSVs	21%	19%	14%	**21%**
Number of vacancies	18,000	15,000	20,000	**23,000**
Number of hard-to-fill vacancies	5,000	4,000	4,000	**7,000**
Number of skill-shortage vacancies	4,000	3,000	3,000	**5,000**
Skills gaps				
% of establishments with any staff not fully proficient	13%	14%	9%	**12%**
Number of skills gaps	34,000	38,000	24,000	**28,000**
Number of staff not fully proficient as a % of employment	4%	5%	3%	**4%**
Training				
% of establishments training staff over the last 12 months	65%	63%	62%	**63%**
% of establishments providing off-the-job training in the last 12 months	48%	49%	47%	**47%**
% of workforce trained	56%	59%	64%	**60%**
Total number of training days	2.7m	2.7m	2.6m	**2.6m**

Scotland Time Series: Key Figures

	ESS 2011	ESS 2013	ESS 2015	ESS 2017
Vacancies and skill-shortage vacancies (SSVs)				
% of establishments with any vacancies	14%	15%	19%	**20%**
% of establishments with any hard-to-fill vacancies	4%	6%	8%	**8%**
% with SSVs	3%	4%	6%	**6%**
% of all vacancies which are SSVs	15%	25%	24%	**24%**
Number of vacancies	45,000	55,000	74,000	**75,000**
Number of hard-to-fill vacancies	9,000	18,000	25,000	**30,000**
Number of skill-shortage vacancies	7,000	13,000	18,000	**18,000**
Skills gaps				
% of establishments with any staff not fully proficient	21%	19%	14%	**16%**
Number of skills gaps	121,000	135,000	118,000	**122,000**
Number of staff not fully proficient as a % of employment	5%	6%	5%	**5%**
Training				
% of establishments training staff over the last 12 months	73%	70%	71%	**71%**
% of establishments providing off-the-job training in the last 12 months	53%	53%	52%	**51%**
% of workforce trained	58%	65%	62%	**62%**
Total number of training days	9.8m	10.0m	9.9m	**10.0m**

Wales Time Series: Key Figures

	FSW 05	ESS 2011	ESS 2013	ESS 2015	ESS 2017
Vacancies and skill-shortage vacancies (SSVs)					
% of establishments with any vacancies	21%	12%	14%	17%	**17%**
% of establishments with any hard-to-fill vacancies	10%	4%	5%	7%	**8%**
% with SSVs	4%	3%	4%	6%	**6%**
% of all vacancies which are SSVs	14%	18%	20%	24%	**27%**
Number of vacancies	38,000	23,000	26,000	37,000	**36,000**
Number of hard-to-fill vacancies	13,000	7,000	7,000	12,000	**13,000**
Number of skill-shortage vacancies	5,000	4,000	5,000	9,000	**10,000**
Skills gaps					
% of establishments with any staff not fully proficient	18%	16%	16%	14%	**13%**
Number of skills gaps	64,000	54,000	67,000	54,000	**57,000**
Number of staff not fully proficient as a % of employment	6%	5%	6%	5%	**5%**
Training					
% of establishments training staff over the last 12 months	n/a	63%	62%	63%	**62%**
% of establishments providing off-the-job training in the last 12 months	n/a	47%	47%	49%	**47%**
% of workforce trained	n/a	56%	62%	64%	**58%**
Total number of training days	n/a	4.9m	5.6m	5.4m	**4.4m**

Appendix C: Industry coding

Each establishment was allocated to one of 13 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 Market Location 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 Market Location'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 (around a fifth of cases), a verbatim response was collected to find out what they do. At the analysis stage this was coded to a four-digit SIC which was then used as the basis for allocation into sector.

The table below shows the 13 sectors and their corresponding SIC 2007 definitions.[55]

Sector	SIC 2007
Primary Sector and Utilities	A - Agriculture, forestry and fishing (01-03) Including farming, hunting and other related service activities, forestry and logging, fishing and aquaculture B - Mining and quarrying (05-09) Including mining of coal, metals, sand/stone/clay, and extraction of crude petroleum and natural gas 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
Manufacturing	C - Manufacturing (10-33) 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
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
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

[55] UK Standard Industrial Classification of Economic Activities 2007 (SIC 2007) https://www.gov.uk/government/publications/standard-industrial-classification-of-economic-activities-sic

Sector	SIC 2007
Hotels and Restaurants	I - Accommodation and food service activities (55-56) Including hotels, campsites, youth hostels, holiday centres, villages and other short stay accommodation, restaurants and takeaways, event catering and licensed clubs, pubs and bars
Transport and Storage	H - Transport and storage (49-53) Including land, water and air transport (passenger and freight), warehousing and support activities for transportation, postal and courier activities,
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)
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
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
Public Administration	O - Public administration and defence; compulsory social security (84) Including administration of the State and economic and social policy of the community, provision of services to the community such as defence activities, foreign affairs, justice and judicial activities, fire service and compulsory social security activities
Education	P - Education (85) Including pre-primary, primary, secondary and higher education, other education (such as sports, driving schools, cultural education), educational support activities
Health and Social Work	Q - Human health and social work activities (86-88) Including Hospitals, medical and dental practices, residential care, social work activities
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 D5A 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 C7) 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 (Primary Sector & Utilities, Manufacturing, Construction	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 Table E.1. Figures have been based on a survey result of 50% (the ‘worst’ case in terms of statistical reliability) and have used a 95% confidence level. Where the table indicates that a survey result based on all respondents has a sampling error of ±0.32%, this should be interpreted as follows: ‘for a question asked of all respondents where the survey result is 50%, we are 95% confident that the true figure lies within the range 49.64% to 50.36%’.

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 assumptions of probability random sampling and a normal distribution of responses.

Table E.1 Sampling error (at the confidence 95% level) associated with findings of 50%

	Population	Number of interviews	(Maximum) Sampling Error
Overall	**1,895,000**	**87,430**	**± 0.32**
By country			
England	1,602,000	71,527	± 0.36
Northern Ireland	56,000	3,973	± 1.50
Scotland	151,000	6,017	± 1.24
Wales	86,000	5,913	± 1.23
By size			
2-4	1,017,000	17,132	± 0.74
5-9	399,000	20,452	± 0.67
10-24	284,000	26,484	± 0.57
25-49	104,000	12,526	± 0.82
50-99	52,000	6,456	± 1.14
100-249	28,000	3,302	± 1.60
250+	12,000	1,078	± 2.85
By sector			
Primary Sector and Utilities	111,000	4,905	± 1.37
Manufacturing	101,000	6,578	± 1.17
Construction	173,000	6,846	± 1.16
Wholesale and Retail	377,000	14,514	± 0.80
Hotels and Restaurants	175,000	8,478	± 1.04
Transport and Storage	57,000	4,075	± 1.48
Information and Communications	85,000	3,976	± 1.52
Financial Services	40,000	2,678	± 1.83
Business Services	420,000	13,713	± 0.82
Public Administration	18,000	1,162	± 2.78
Education	59,000	5,525	± 1.25
Health and Social Work	135,000	7,952	± 1.07
Arts and Other Services	145,000	7,028	± 1.14

Source for population data is the ONS Inter-Departmental Register (IDBR). Populations have been rounded to the nearest 1,000.

Appendix F: Weighted base sizes

	UK	England	NI	Scotland	Wales
Overall	1,895,140	1,602,193	55,979	150,502	86,466
Chapter 2: Recruitment and skill-shortage vacancies					
With a vacancy	374,706	320,596	8,816	30,261	15,032
With a hard-to-fill vacancy	150,872	128,243	3,383	12,628	6,618
With a skill-shortage vacancy	112,585	95,249	2,522	9,634	5,179
Chapter 3: The Internal Skills Challenge					
With at least one skills gap	249,501	208,086	6,532	23,887	10,995
With at least one employee with more qualifications and skills than job role requires	656,675	552,077	20,653	52,965	30,979
Chapter 4: Training and Workforce Development					
Providing any training	1,250,563	1,055,933	35,150	106,169	53,311
Any on-the-job training	1,009,537	854,012	26,654	87,549	41,322
Any off-the-job training	910,012	766,301	26,285	77,038	40,389
Both on- and off-the-job training	668,987	564,380	17,789	58,419	28,400
Providing no training for staff	644,577	546,260	20,829	44,333	33,155
Providing training towards a nationally recognised qualification	567,712	481,013	15,507	44,031	27,160
Chapter 5: High Performance Working					
14 out of 21 HPW practices	162,637	141,038	3,313	11,843	6,443

Base: All establishments

Appendix G: References

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Any enquiries regarding this publication should be sent to us at:

employer.surveys@education.gov.uk or www.education.gov.uk/contactus

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