Department for Education

Employer Skills Survey 2019

Research report

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Government Social Research

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Key findings across the ESS series (2015 – 2019) for England, Northern Ireland and Wales

	2015	2017	2019
Vacancies and skill-shortage vacancies (SSVs)			
% of establishments with any vacancies	19%	20%	**17%**
% of establishments with any hard-to-fill vacancies	8%	8%	**8%**
% of establishments with SSVs	6%	6%	**5%**
% of all vacancies that are SSVs	22%	22%	**24%**
Number of vacancies	854,000	932,000	**877,000**
Number of skill-shortage vacancies	192,000	209,000	**214,000**
Skills gaps			
% of establishments with any staff not fully proficient	14%	13%	**13%**
Number of staff not fully proficient	1,263,000	1,145,000	**1,245,000**
Number of staff not fully proficient as a % of employment	5.0%	4.3%	**4.5%**
Training			
% of establishments training any staff over the last 12 months	65%	66%	**61%**
% of establishments providing off-the-job training in the last 12 months	48%	48%	**43%**
% of workforce trained	63%	62%	**60%**
Total days training	108m	105m	**99m**
Training days per employee	4.2	4.0	**3.6**
Total training expenditure†	£42.0bn	£42.2bn	**£42.0bn**
Training expenditure per employee†	£1,700	£1,600	**£1,500**

Figures have been rounded to the nearest 1,000.

†Training spend data has been adjusted for inflation and are at 2019 prices.

Executive summary

Introduction

The Employer Skills Survey (ESS) is a definitive source of intelligence for understanding the skills challenges faced by employers, both in terms of their existing workforce and when recruiting, and how they respond to these challenges through investment in training and workforce development. With over 81,000 employers participating in the 2019 wave, it is one of the world's largest business surveys.

Although ESS has been a UK-level survey since 2011, employers in Scotland were not included in the 2019 survey. Another methodological change for the 2019 survey was that the question areas were broader than previous ESS, and included key elements of the Employer Perspectives Survey, which focuses on what drives decisions around recruitment and people development, as well as involvement and experiences with specific programmes such as apprenticeships. Survey fieldwork for the latest wave took place between June and December 2019. While the findings still provide an important source of labour market intelligence, the Covid-19 outbreak in early 2020 means that the economic landscape has changed significantly since survey fieldwork was conducted.

The study reports the experiences of employers at establishment level, with interviews conducted with the most senior person at each site with responsibility for human resources and workplace skills. Employers with at least two people on their payroll were in scope for the survey.

Recruitment and skill-shortage vacancies

Overall, 46% of establishments had recruited anybody over the past 12 months, compared with half of establishments in 2017 and 2015 (50% and 51% respectively). Fewer establishments reported having any vacancies at the time of fieldwork (17%) than in 2017 (20%). The total number of vacancies had also fallen to 877,000, 6% lower than in 2017. This is a change in the pattern between 2011 and 2017 when vacancy incidence and volume increased in each consecutive wave of ESS.

Although the proportion of employers with vacancies was lower than in 2017 across all nations, the most substantial decrease occurred in England (down 3 percentage points from 20% to 17%). England was also the only nation to report a fall in the total number of vacancies (down 7% from 2017, at 811,700) and a lower vacancy density (3.2% compared with 3.6% in 2017).[1] As has been the case throughout the ESS series, the occupational group with the highest vacancy density was Associate Professionals (7.2%). Vacancy density decreased significantly compared with 2017 in Skilled Trades, Sales and Elementary occupations.

The proportion of employers that had skill-shortages vacancies (defined as vacancies hard to fill due to applicants lacking the skills, experience or qualifications employer require) had decreased slightly from 2017 (5% vs. 6% in 2017). This pattern was consistent in Northern Ireland and Wales (each decreasing 1 percentage point to 5% and 6% respectively), though the proportion reporting any skill-shortage vacancies in England remained unchanged at 6%.

Despite a reduction in the overall number of vacancies reported by employers compared with 2017, there were small increases in the number of hard-to-fill vacancies (from 307,000 to 314,000) and skill-shortage vacancies (from 209,000 to 214,000), and therefore a higher density of skill-shortage vacancies (up 2 percentage points to 24%).[2] There was greater national variation on this measure; England saw the highest increase in skill-shortage vacancy density compared with 2017 (up 3 percentage points to 25%), while there was also a marginal increase in Northern Ireland (up 1 percentage point to 22%). In contrast, Wales, by virtue of an increase in vacancies but little change in the number of skill-shortage vacancies, had a lower density of skill-shortage vacancies (24%, compared with 27% in 2017).

The Business Services and Health and Social Work sectors had the highest *volumes* of skill-shortage vacancies, however the *density* of skill-shortage vacancies was highest in Construction and Manufacturing sectors, where approaching two-fifths of vacancies were proving hard-to-fill because of applicants lacking the appropriate skills, qualifications or experience. By occupation, employers faced the greatest challenges in finding suitably skilled candidates for Skilled Trades positions, with nearly half of vacancies in these roles classed as skill-shortage vacancies (48%). Skilled Trades has consistently been the occupation with the highest density of skill-shortage vacancies across the ESS series.

[1] Vacancy density is the number of vacancies as a proportion of employment.
[2] Skill-shortage density is the number of skill-shortage vacancies as a proportion of all vacancies.

The skills lacking among candidates comprised a range of technical and practical skills. The majority of skill-shortage vacancies (63%) were attributed to a lack of specialist skills or knowledge needed by candidates to perform their role. A lack of 'operational skills', including lack of knowledge of the products and services the employer offers and/or knowledge of how their organisation works contributed to 45% of skill-shortage vacancies (up slightly from 43% in 2017). A lack of 'complex analytical skills' also contributed to 45% of skill-shortage vacancies, although its importance has continued to decrease (down from 48% in 2017 and 50% in 2015).

In terms of people and personal skills, the ability to manage one's own time and prioritise tasks remained a common cause of skill-shortage vacancies (45%), although it was a less frequent cause than in 2017 (50%). When time management and task prioritisation skills are combined with the ability to manage one's own feelings and handle the feelings of others – which was cited as a skill lacking for 33% of all skill-shortage vacancies – just over half (52%) of skill-shortage vacancies were at least partly caused by a lack of 'self-management skills.' Furthermore, a lack of management and leadership skills such as managing or motivating other staff, persuading and influencing others, and setting objectives and/or planning resources contributed to 44% of all skill-shortage vacancies.

While only one in 20 employers had skill-shortage vacancies, almost all reported that the skill-shortage vacancies impacted their business, with the most common being an increased workload for staff (84%). Two-fifths or more also mentioned financial impacts including loss of business to competitors (40%) and increased operating costs (45%).

The internal skills challenge

Most employers (87%) reported having a fully proficient workforce. However, 13% felt at least one staff member was not proficient, consistent with levels reported since 2013 (between 13% and 14% each wave). In total, around 1.25m employees in the total workforce were considered not fully proficient at their job. Skills gap density (the percentage of the workforce not proficient at their job) increased slightly to 4.5% from 4.3% in 2017. Although a small change, this is the first time in the ESS series (i.e. since 2011) that skills gap density has increased. This was driven by an increase in skills gap density in England (4.6%, up from 4.3% in 2017). In contrast, skills gap density decreased in Northern Ireland (3.3%, down from 3.8% in 2017) and Wales (4.0%, down from 4.7% in 2017).

Skills gap density remained highest among the Hotels and Restaurants and Manufacturing sectors (6.9% and 5.8% respectively), with both increasing from 2017 levels.

Similarly, Health and Social Work (3.3%) and Education (2.8%) remained the sectors with the lowest skills gap densities. There was a particularly large increase in skills gaps density compared with 2017 in Public Administration (from 3.8% to 5.3% in 2019), and a large fall in the Financial Services sector (from 5.0% to 3.8% in 2017).

Staff in Elementary occupations were the most likely to be described as not being fully proficient (8.0% were considered to have a skills gap) while those in Managerial roles were the least likely (2.2%). Skills gap density increased across most occupations from 2017 to 2019, with the exception of Skilled Trades and Sales and Customer Services occupations. The largest increase was among Elementary occupations, rising from 6.3% of the workforce lacking proficiency in 2017 to 8.0% in 2019. This was also the occupation with the highest number of skills gaps (280,300).

As has been the case historically, skills gaps were most often caused by transient factors (79% of all skills gaps) which would be expected to ease naturally over time, including individuals being new to their role (67%) or their training only having been partially completed (61%). The prevalence of transient factors had increased since 2017 (up 3 percentage points) and a fifth of all skills gaps were entirely attributed to these factors. There was also an increase in causes of skills gaps linked to positive changes made by employers such as introducing new technology or working practices; these causes of skills gaps accounted for 42% of skills gaps in 2019, compared with 34% in 2017 (returning to levels seen in 2015). These increases in potentially ‘positive’ causes of skills gaps, when combined with the increase in number of transient skills gaps, may somewhat offset concerns about the rise in number of skills gaps overall. Other common causes of skills gaps included staff lacking motivation (38%) and training-related causes, including staff having been trained but not sufficiently improving (33%) and staff not having received appropriate training (28%). There was also further evidence of difficulties recruiting suitably skilled staff being an issue, with this being a cause for a third of skills gaps (32%), up from just over a quarter (28%) in 2017.

Skills lacking among the existing workforce tended to match those discussed as lacking among recruits. In terms of technical and practical skills, specialist skills or knowledge required to perform the job role was the most prevalent specific skill lacking among staff (a factor in 53% of all skills gaps). The same proportion of skills gaps were partly due to a lack of operational skills (53%), while a lack of proficiency in complex analytical skills contributed to just under half of all skills gaps (47%). All three of these were most likely to be cited as skills deficiencies within the Financial Services sector. The most common people and soft skills lacking were related to self-management skills (72% of all skills gaps), including the inability among staff to manage their own time or prioritise tasks (60% of all skills gaps) or to manage their feelings and the feelings of others (49%). A lack of management and leadership skills were also a factor for approaching three-fifths (57%) of skills gaps.

Most employers affected by skills gaps reported that it impacted on their establishment's performance (66%). This proportion is similar to historic ESS levels, though slightly fewer employers said skills gaps were having a major impact on performance (15%, compared with 17% in 2015 and 2017). Across all sectors, the key impacts on performance included increased workload for other staff (52%), higher operating costs (26%), having difficulty meeting operating standards (24%) and having difficulties introducing new working practices (23%). All of these were reported at similar levels to 2017.

Training and workforce development

Training and workforce development are often utilised by employers to help address skills shortages in the workforce. However, given that historically a large proportion of training is specifically undertaken for new recruits, the fall in recruitment in 2019 compared with 2017 may partly explain why there have been falls in training and workforce development activities across several measures.

In 2019, fewer employers had arranged or funded training for staff in the last 12 months than in previous ESS (61%, compared with between 65% and 66% from 2013 to 2017). This is largely due to fewer employers training in England and Northern Ireland.

The proportion of staff being trained in the last 12 months also decreased, from 62% in 2017 to 60% in 2019; this was the lowest proportion reported since 2011 (54%). This decrease was predominantly driven by a lower proportion of staff being trained in England (60% vs 62% in 2017). In contrast, there was a sharp increase in the proportion of staff trained in Wales (up 7 percentage points to 65%), and a smaller increase in Northern Ireland (up 2 percentage points to 62%, despite fewer employers training overall in Northern Ireland).

In total, employers had provided 99m training days to staff over the last 12 months, down from 105m in 2017. This equated to 6.0 training days per annum per person trained and 3.6 days per employee, the lowest levels over the 2011-2019 period. These measures of training were down across all nations; this includes Wales, where although more staff had been trained, they were, on average, receiving over a day less training per year than in 2017. The amount of training undertaken was highest in the Public Administration and Hotels sectors (8.2 days and 8.0 days per trainee respectively) and lowest in Transport and Storage (despite levels increasing on 2017), Education and Manufacturing, with trainees in each of these sectors receiving less than 5 days training per annum.

Investment in training had also decreased in real terms (i.e. adjusted for inflation) since 2017 to £42.0bn (down 0.5% on 2017), bringing it in line with the total training expenditure in 2015 (£42.0bn). This was equivalent to a spend of £2,540 per person trained and £1,530 per employee (1% and 5% decreases respectively on 2017). Training spend per trainee per annum was higher in England (£2,570) than in Northern Ireland (£2,190) and Wales (£2,130).

Despite reductions in training levels across several measures, the proportion of employers in ‘training equilibrium’ (i.e. content with their current levels of training) increased to 61% from 59% in 2017, with this feeling most prevalent among non-training employers (72%).

Continuing trends in the ESS series, the most common type of training provided was job-specific training, mentioned by 84% of employers (the same proportion as 2017). While the majority of employers also provided health and safety or first aid training (71%) and basic induction training (60%), both had decreased from 2017 levels (by 3 and 5 percentage points respectively).

1. Introduction

Background to the Employer Skills Survey

From 2010-2017, the Employer Skills Survey (ESS) sat alongside the Employer Perspectives Survey (EPS) to produce insights that complemented each other, with the two surveys run in alternate years (EPS was last conducted UK-wide in 2016). The focus of the Employer Perspectives Survey was primarily outward-looking, covering provision of and engagement with the wider skills system, whereas the Employer Skills Survey had a more inward-looking focus assessing the current skills position and skills needs of employers. For ESS 2019, the two surveys were in effect merged. The 2019 iteration of ESS is the fifth in a series conducted biennially since 2011.[3] Although ESS has been a UK-level survey since 2011, employers in Scotland were not included in the 2019 survey.

This report focuses on findings on "core" ESS measures, namely the skills challenges that employers in England, Northern Ireland and Wales report both within their existing workforces and when recruiting, as well as the levels and nature of investment in training and development.

Policy background

The period between the last ESS in 2017 and the 2019 survey was marked by continued economic growth,[4] and high levels of job creation, with the employment rate at the end of the second quarter of 2019 at 76.1%, at that time the joint highest since records began.[5] However, the post-recession UK economy has also been characterised by its long-standing productivity gap relative to international competitors (Taylor, M., 2017). According to the most recent ONS estimates, the UK had the lowest productivity rate of all G7 countries except Italy.[6] In the second quarter of 2019 output per hour fell by 0.5%, the largest quarterly fall in productivity in five years.[7]

[3] 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.
[4] 2.7% growth in UK gross domestic product (GDP) between 2017 Q2 and 2019 Q2. Source: ONS, *Quarterly National Accounts time series dataset March 2020*, (2020).
[5] ONS, *Labour Market Overview: June 2019* (2019)
[6] ONS, *International comparisons of productivity: 2016* (2018)
[7] ONS, *Labour productivity, UK: April to June 2019*, (2019)

This weak productivity growth during the 2010s was notable enough for the Royal Statistical Society to name the average annual increase in UK productivity during the 2010s of 0.3% to be their UK Statistic of the Decade,[8] and the Institute for Public Policy Research identified the need to address the relatively slow growth of British productivity as a key priority for the UK in the 2020s within their Future Proof: Britain in the 2020s report.[9]

Workplace skills as a driver of economic growth, and productivity growth specifically, remain central to government policy. While skills are recognised as a key contributor to productivity growth, it is widely held that the UK has a skills deficit. The Department for Education's 'Technical education reform: the case for change' (July 2016) reported that 'it is increasingly evident from international surveys that our current skills system is failing to fully meet the country's needs across a range of skills', including numeracy and literacy skills, and intermediate skills. It cited the OECD's forecast that the UK would fall to 28th out of 33 OECD countries for intermediate skills by 2020. The report also discussed how skills shortages were posing significant challenges to employers, but argued that at the same time there was a lack of employer engagement and investment in education and training.[10]

Training and workforce development are vital means of addressing skills shortages and skills gaps, and to improve productivity. There have been a number of changes in training policy in recent years, with a particular focus on developing vocational skills and increasing the uptake and quality of apprenticeships.

In April 2017, the UK government introduced the apprenticeship levy, paid by all employers with an annual wage bill in excess of £3m at a rate of 0.5% of their wage bill. While the apprenticeship levy had already been introduced at the time of the previous ESS survey, many measures (particularly those assessing activity over the previous 12 months) covered a period of time before the April 2017 reforms. ESS 2019 therefore provides the first standalone set of post-reform findings on the extent and nature of employer training and workforce development. More information on the impact of these policies on apprenticeships specifically can be found in the Apprenticeship Thematic Report.

[8] RSS, *The Royal Statistical Society announces its Statistics of the Decade* (2019)
[9] IPPR, *Future Proof: Britain in the 2020s* (2016)
[10] DfE, *Technical Education Reform: the case for change* (2016)

Research background

Accurate, detailed and up-to-date labour market information remains key to informing policy designed to address the UK's skills and productivity issues, especially amid a period of change as the UK leaves the European Union, and against a backdrop of rapid technological change.

Based on survey responses from over 81,000 employers across England, Northern Ireland and Wales, ESS 2019 enables assessment of how skills deficiencies are impacting business and organisational performance at an overall, national, more local and also sectoral level. It measures how prevalent skills challenges are, as well as their character and impact, 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.

It is important to note that the fieldwork for ESS 2019 took place before the Covid-19 outbreak in early 2020, and clearly the economic landscape has, at least temporarily, changed significantly since the survey was conducted.

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

- Present findings across England, Northern Ireland and Wales, including time series analysis comparing the results to those seen in 2015 and 2017;
- Compare experiences and behaviours between employers across England, Northern Ireland and Wales;
- 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.

This report presents insight into key overall findings. Four thematic reports are also being produced covering:

- Skills needs;
- Developing the skills pipeline;
- Apprenticeships; and
- Training;

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

Methodological overview

From 2010 the Employer Skills Survey sat alongside the Employer Perspectives Survey (EPS) to produce insights that complemented each other, with the two surveys run in alternate years (EPS was last conducted UK-wide in 2016). For ESS 2019, the existing ESS and EPS surveys were merged. Consequently, although ESS 2019 had a broadly similar methodology to the previous ESS studies in terms of sampling, data collection and data weighting, in order to maintain the ability to compare data over time, the questionnaire was redeveloped to accommodate the merging of ESS and EPS question content.

As in previous iterations of ESS, the survey was carried out in two parts: a core survey of 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. Full details of the changes made to the questionnaire as a result of the merging of the ESS and EPS surveys, as well as further detail about the methodology, are provided in the technical report published alongside this report on the gov.uk website.

Sampling

The population covered by the survey comprised employers in England, Northern Ireland and Wales at the establishment level (rather than at an organisational level)[11] with at least two staff on the payroll. Sole traders with a single person on the payroll were excluded.

[11] 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.

The survey covered 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 2018 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 Wales, Northern Ireland and eight English regions, while in one region, the West Midlands, a slightly different approach was adopted. In this region a Random Probability Sampling method was used, with no quotas and instead interviews were attempted with all sample records loaded. 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.

Further details about the sampling approaches utilised in the 2019 iteration of ESS are provided in the technical report published alongside this report on the gov.uk website.

Questionnaire

As previously mentioned, from 2010 to 2017 the Employer Skills Survey sat alongside the Employer Perspectives Survey to provide complementary insights. Following a review conducted by Department for Education (DfE) and its partners, the questionnaire for ESS 2019 was designed to merge these two pre-existing surveys in order to provide greater efficiency and to enhance the potential for cross analysis. Merging the surveys involved adding many of the questions used in the EPS series to those of the ESS series. The surveys were required to be combined in such a way that interview length stayed below 25 minutes: a longer survey would have impacted on response rates and the quality of information provided. To avoid an excessively long questionnaire the merger of two surveys required more extensive modularisation of the questionnaire than undertaken previously.[12]

[12] Modularisation involved deciding upon certain sections of the survey (such as upskilling and apprenticeships) only being asked of a certain proportion of respondents, selected at random. The report makes clear which question this applies to. Further details of the modularisation of the questionnaire are available in the full Technical Report published alongside this report on the gov.uk website.

Questions that were included in the merged questionnaire were designed to be as consistent as possible with previous versions of the same question in order to ensure comparability over time. Some new questions were also added to the survey for the first time, including questions on specific IT skills shortages, T Levels (the new technical education qualifications for 16-19-year olds in England), and on awareness and impact of recent apprenticeship policy changes.

Further details of the process of merging the 2017 ESS and 2016 EPS questionnaires for use in ESS 2019, and the questions added to the survey, are provided in the full technical report on the gov.uk website.

Fieldwork

Fieldwork for the core survey was undertaken between June and December 2019 and comprised 81,013 completed interviews.[13] 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 August and December 2019 and involved 10,255 interviews with training establishments that had taken part in the core survey.

An overall response rate of 41% was achieved for the core survey. For the Investment in Training follow-up, respondents were already engaged with the survey so, as in previous years, a higher response rate (68%) was achieved. Table 1-1 shows response rates by country for both surveys.

Table 1-1 Survey response rates[14]

	Total	England	Northern Ireland	Wales
Core survey				
Interviews	81,013	70,217	4,023	6,773
Response rate	41%	41%	57%	43%
Investment in Training follow-up				
Interviews	10,255	8,068	825	1,362
Response rate	68%	68%	72%	67%

[13] Tables A.1.1 to A.1.4 in Appendix A provide full breakdowns on the number of interviews achieved (i.e. unweighted base sizes) by country, size and sector.
[14] A full breakdown of response rates (including the number of records called, number of refusals etc.) is included in the accompanying technical report.

Weighting

Findings from the core survey have been weighted and grossed up to accurately represent the total population of establishments in England, Northern Ireland and Wales with at least two people on their payroll, calculated using the March 2019 IDBR population statistics. This has been done on a size, sector and geographic basis. Separate weights were 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 that were affected by a particular experience. For questions that were modularised (i.e. only asked of a random selected sample of respondents), modular versions of the workplace and employee weights were created. The weighting approach has retained consistency with previous iterations of the survey and allows for time series comparisons across the ESS (and EPS) 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.

Size and sector profile of establishments in England, Wales and Northern Ireland

The profile of establishments in England, Wales and Northern Ireland are shown in Table 1-2. These are taken from the latest ONS Inter-Departmental Register (IDBR) data available at the time the findings were reported and are not survey findings. At an overall level, the number of establishments increased by 5% between 2016 and 2019. By far the greatest change between the 2016 and 2019 iterations of ESS was the number of Transport and Storage establishments, which increased by 20%. Other larger changes included increases in the Information and communications sector (13%), the Construction sector (11%), Business services (9%) and the Hotels and restaurants sector (8%).

There were increases in the number of establishments compared with 2017 across all size bands, though the largest increase was in the number of those employing 2 to 4 staff (a 6% increase).

Table 1-3 shows the profile of employment in England, Wales and Northern Ireland. Across the three nations employment rose by 4%, with the largest growth in employment in Northern Ireland (6%). Wales saw relatively slower growth (increasing 4% since 2016). Sector employment growth was highest overall in the Hotels and Restaurants and Construction sector (each increasing 10% on 2016 levels), while Financial Services was the only sector to contract (decreasing 3% from 2016). In terms of size, employment has grown most among establishments with 2 to 4 staff and 250 or more staff (each increasing 5%).

Table 1-2 Profile of establishments in England, Wales and Northern Ireland for 2017 and 2019

	2017				2019			
	Total (000s)	England (000s)	Northern Ireland (000s)	Wales (000s)	Total (000s)	England (000s)	Northern Ireland (000s)	Wales (000s)
Total	**1,745**	**1,602**	**56**	**86**	**1,831**	**1,683**	**59**	**89**
Size								
2 to 4	941	864	30	47	998	917	32	48
5 to 24	624	573	20	31	648	595	21	33
25 to 49	95	88	3	5	98	90	3	5
50 to 99	48	44	1	2	50	46	2	2
100 to 249	26	24	1	1	27	25	1	1
250+	11	10	<0.5	<0.5	11	11	<0.5	1
Sector								
Primary Sector & Utilities	98	80	8	10	99	80	9	10
Manufacturing	94	86	3	4	94	86	3	4
Construction	161	147	5	8	179	165	6	8
Wholesale & Retail	348	319	12	17	348	319	12	17
Hotels & Restaurants	159	146	4	9	172	157	4	10
Transport & Storage	52	48	2	3	62	57	2	4
Information & Communications	80	77	1	2	91	87	1	2
Financial Services	37	34	1	2	37	34	1	1
Business Services	391	370	7	14	426	403	8	15
Public Admin.	16	14	1	1	15	13	1	1
Education	54	48	3	3	55	49	3	3
Health & Social Work	123	112	4	7	120	108	4	7
Arts & Other Services	133	122	4	7	134	123	5	7

Source: ONS Inter-Departmental Register IDBR (2016 and 2019)

Table 1-3 Profile of employment in England, Wales and Northern Ireland for 2017 and 2019

	2017				2019			
	Total (000s)	England (000s)	Northern Ireland (000s)	Wales (000s)	Total (000s)	England (000s)	Northern Ireland (000s)	Wales (000s)
Total	**26,418**	**24,452**	**745**	**1,221**	**27,532**	**25,481**	**787**	**1,265**
Size								
2 to 4	2,446	2,244	80	122	2,579	2,370	84	125
5 to 24	6,252	5,745	198	309	6,488	5,959	207	322
25 to 49	3,279	3,017	105	157	3,360	3,091	106	163
50 to 99	3,279	3,023	99	146	3,406	3,154	107	145
100 to 249	3,860	3,592	96	172	4,003	3,722	104	177
250+	7,314	6,832	167	315	7,696	7,183	179	333
Sector								
Primary Sector & Utilities	661	581	33	47	702	619	35	48
Manufacturing	2,176	1,964	78	134	2,232	2,012	84	136
Construction	1,119	1,028	34	57	1,226	1,128	38	60
Wholesale & Retail	4,219	3,899	130	190	4,244	3,926	134	185
Hotels & Restaurants	1,945	1,797	50	98	2,138	1,977	53	107
Transport & Storage	1,185	1,118	26	41	1,296	1,219	29	49
Information & Communications	991	951	18	22	1,076	1,030	20	25
Financial Services	946	900	18	28	918	870	18	29
Business Services	4,910	4,673	90	147	5,253	4,986	105	162
Public Admin.	1,142	1,013	45	85	1,147	1,018	42	87
Education	2,406	2,215	69	121	2,425	2,240	69	116
Health & Social Work	3,475	3,154	125	196	3,592	3,261	126	204
Arts & Other Services	1,244	1,158	31	55	1,284	1,195	32	57

Source: ONS Inter-Departmental Register IDBR (2016 and 2019)

Structure of this report

This report is structured as follows:

- Chapter 2: Recruitment and skill-shortage vacancies

  This chapter discusses recruitment activity and difficulties in filling vacancies due to skill-shortages. It examines the proportion of establishments with vacancies and skill-shortage vacancies at the time of the interview, the volume and density of such vacancies (i.e. the proportion of vacancies where skill shortages are encountered) , the skills lacking in the available labour market, and the impact of skill-shortage vacancies on employers.

- Chapter 3: 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.

- Chapter 4: Training and workforce development

  Chapter 4 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 5: 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 1-4.

Table 1-4 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 2019 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. Significance testing on employer measures use the unweighted respondent base, while employment measures, and density measures such as the proportion of the workforce with skills gaps and skills-shortage vacancy density, have been calculated on the basis of the unweighted employment (or vacancy) base. Further statistical information can be found in Appendix E.

2. Recruitment and skill-shortage vacancies

Chapter summary

Fewer establishments in 2019 than in 2017 had any vacancies (17% compared with 20%), and the 877,000 vacancies reported at the time of the survey was 6% lower than the number in 2017. The decrease in the number of vacancies was driven by the situation in England; employers in Northern Ireland and Wales reported more vacancies than in 2017.

Despite the overall fall in vacancies and recruitment activity, more vacancies in 2019 than at any point in the ESS series since 2011 were proving hard to fill due to applicants lacking the relevant skills, qualifications or experience employers require, and these skill-shortage vacancies comprise nearly a quarter of all vacancies (24%, up from 22% in the 2013 to 2017 period).

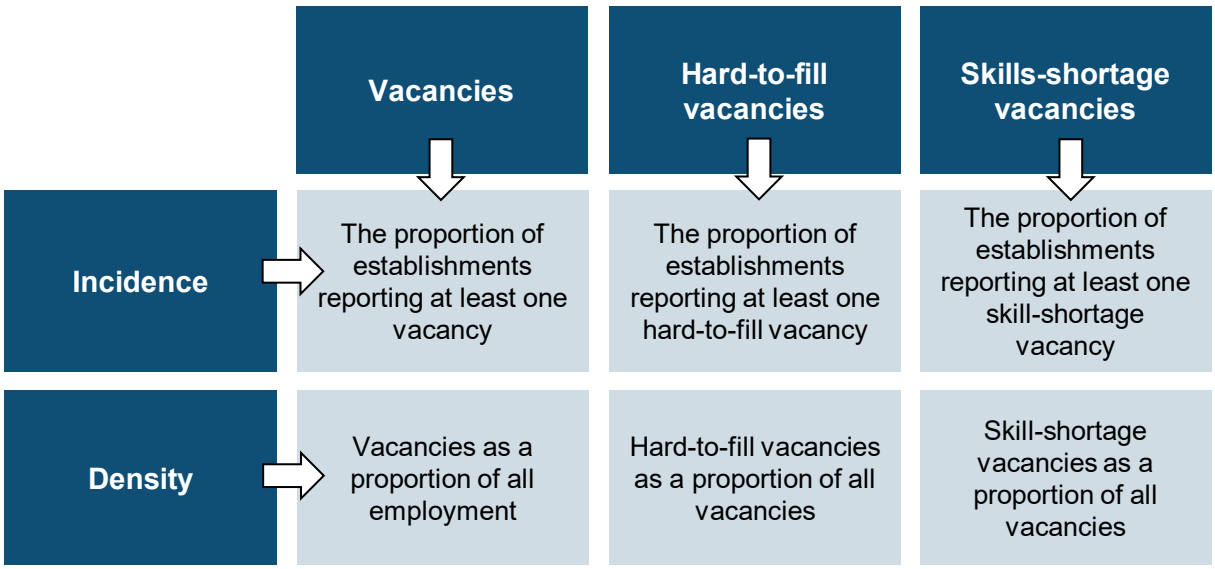
Skill-shortage vacancies were particularly prevalent in certain sectors. The largest volume of skill-shortage vacancies at the time of the interview were in Business Services (48,900) and Health and Social Work (36,300). In both these sectors the proportion of vacancies which were skill-shortage vacancies (skill shortage density) was a little above the 24% average (27% and 25% respectively). Skill shortage density was highest in the Construction sector (36%, the same figure as in 2017) and in Manufacturing (36%, a large increase from the 29% reported in 2017, indicating growing skill shortages in this sector).

Skilled Trades roles have historically had the highest density of skill-shortage vacancies. This continued in 2019, and such roles also saw the biggest increase in skill-shortage density compared with 2017, with nearly half (48%) of all Skill Trades vacancies hard-to-fill for skills-related reasons (up from 42% in 2017).

A wide range of skills were lacking among applicants. Over four-fifths (84%) of skill-shortage vacancies were at least partially caused by a lack of technical or practical skills (a small decrease from a figure of 88% in 2017); specifically a lack of specialist skills or knowledge needed to perform the role was a partial cause of nearly two-thirds (63%) of skill-shortage vacancies. In comparison, two-thirds (66%) of skill-shortage vacancies were at least partially caused by a lack of people and personal skills, much lower than in 2017 (75%). The most common skill of this type lacking was the ability to manage one's own time and prioritise tasks. However, as with most people and personal skills, the proportion of skill-shortage vacancies at least partially attributed to this (45%) was lower than in 2017 (50%).

Introduction

ESS 2019 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, particularly in relation to applicants having the skills and qualifications employers require. The key measures used in this chapter are as follows:



Following a brief analysis of vacancies and recruitment methods, this chapter focusses on the incidence, volume and profile of skill-shortage vacancies, the specific skills that employers have found to be lacking, and the impact skill-shortage vacancies have.

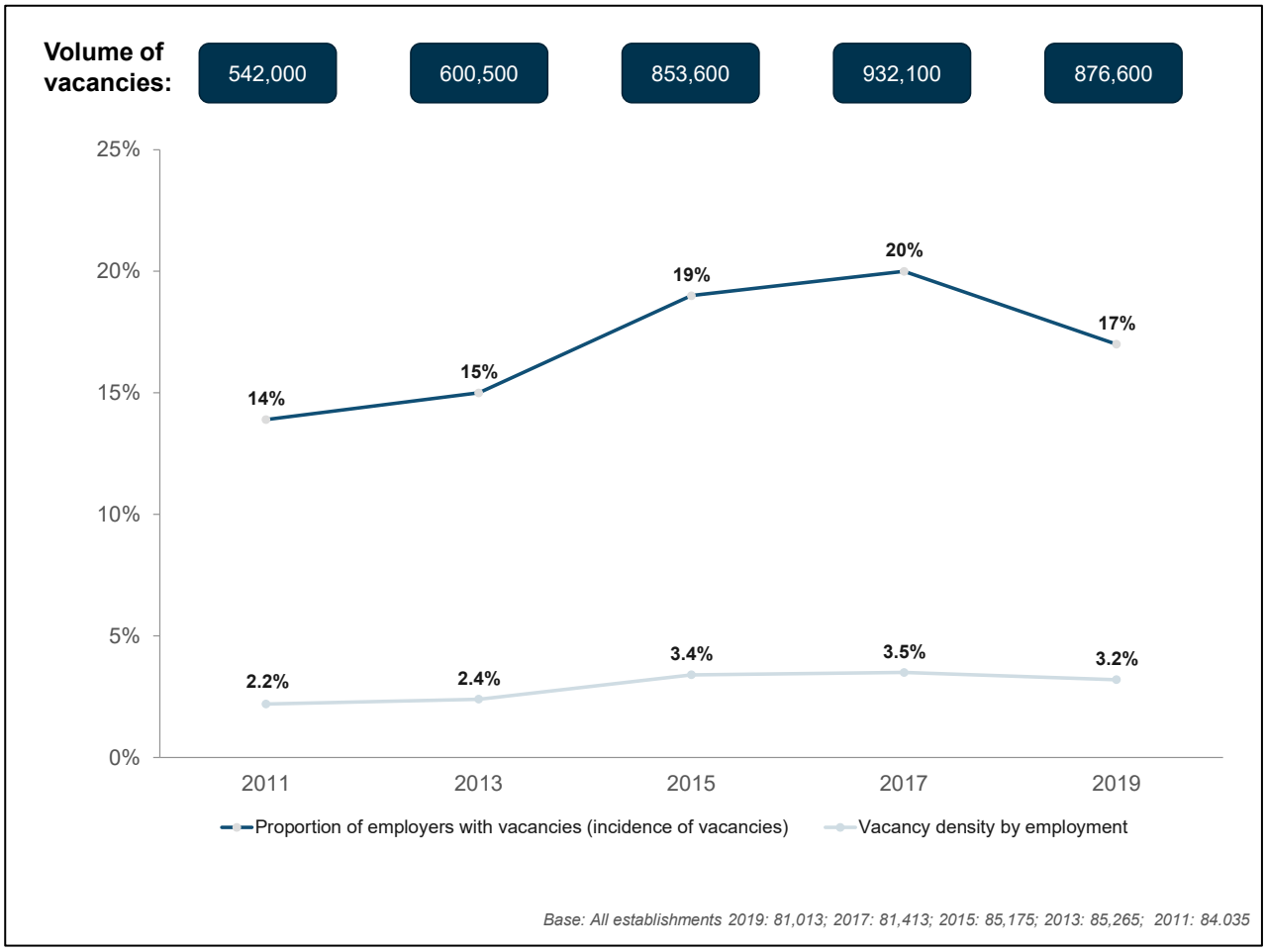
Incidence of recruitment over the past 12 months

While most of this chapter focuses on employers' experiences of vacancies at the time of the survey, employers were also asked whether they had recruited at all over the past 12 months. Overall, 46% of establishments had recruited anybody over the past 12 months, compared with half of establishments in 2017 and 2015 (50% and 51% respectively). Establishments in England and Wales (both 46%) were more likely than those in Northern Ireland (40%) to have recruited, however England saw the largest decrease in recruitment activity compared with 2017 (down 5 percentage points, compared with a decrease of 2 percentage points in Northern Ireland and no change in Wales). Recruitment over the last 12 months increased substantially with size from just under a quarter (23%) of establishments with 2 to 4 employees to two-thirds (67%) of those with 5 to 24 employees and almost all (94%) establishments with 25 or more employees.

Vacancies

Just over one in six establishments (17%) had at least one vacancy at the time of the survey, a 3-percentage point decrease from 2017. In volume terms there were 877,000 vacancies, equivalent to 3% of total employment. The vacancy total represents a 6% decrease on the 932,000 vacancies reported in 2017 (which was equivalent to 4% of total employment). As demonstrated in Figure 2-1, vacancy incidence, density and volume were all previously on a rising trajectory, and the fall in each metric represents the first interruption of this pattern since 2011.

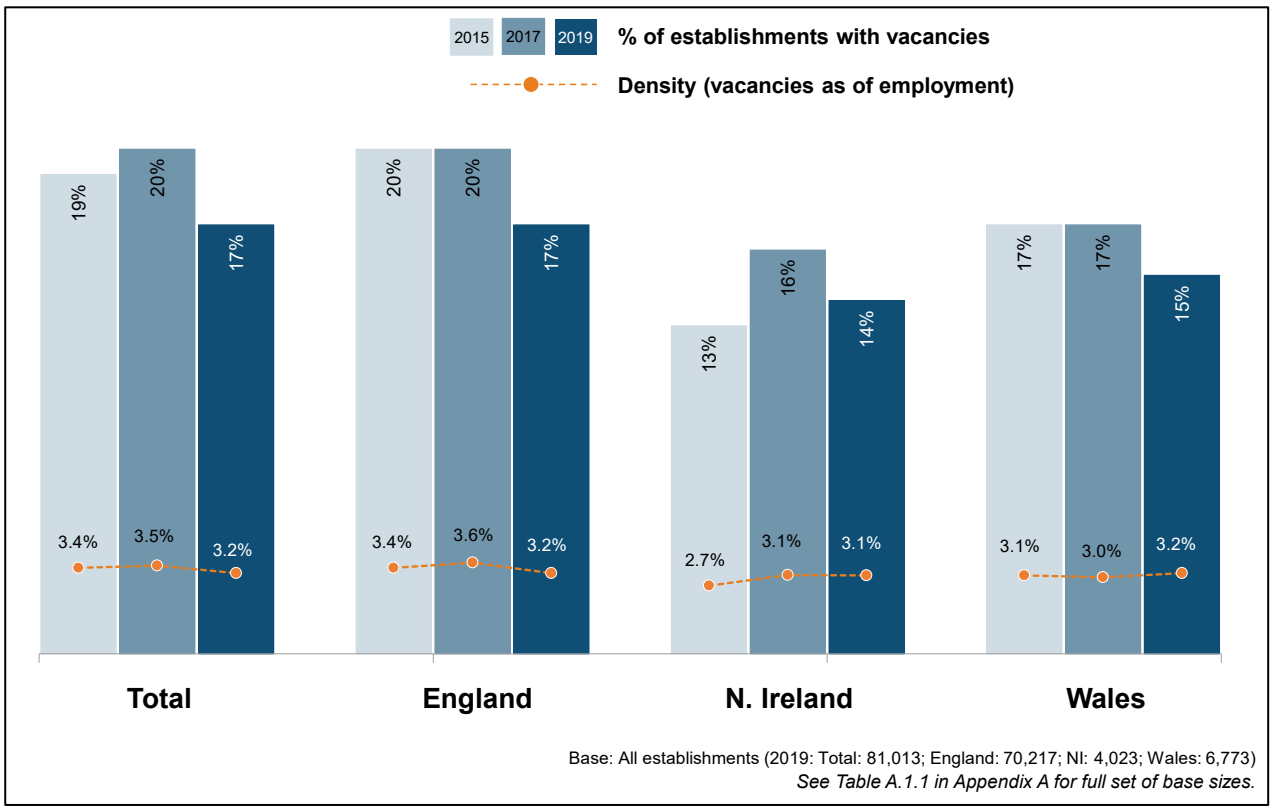
Figure 2-1 Incidence, density and volume of vacancies over time



While in 2017 the picture was broadly consistent across England, Northern Ireland, and Wales, in 2019 there were greater divergences between the three countries (see Figure 2-2). The overall fall in the total number of vacancies was driven entirely by England – in Northern Ireland and Wales there were more vacancies than in 2017 (an increase of 4% in Northern Ireland and 12% in Wales).

The density of vacancies (i.e. vacancies as a proportion of employment) also fell in England from 2017 to 2019, while remaining the same in Northern Ireland and increasing in Wales. At the same time, the proportion of establishments with vacancies fell across each country. In Wales and Northern Ireland, there were a higher number of vacancies in each employer with any vacancies in 2019 than in 2017.

Figure 2-2 Incidence and density of vacancies, by country



Base: All establishments (2019: Total: 81,013; England: 70,217; NI: 4,023; Wales: 6,773)
See Table A.1.1 in Appendix A for full set of base sizes.

Table A.2.1 in Appendix A provides a detailed breakdown of vacancy incidence, volumes and density by country, size and sector.

There was variation in the extent and pattern of vacancies by size of establishment and by sector. As in 2017, the proportion of establishments reporting vacancies increased with size, while the density of vacancies was higher among the smaller establishments.

The sectors with the highest density of vacancies (vacancies as a proportion of employment) were Hotels and Restaurants (4.9%), Public Administration (4.8%), Health and Social Work (4.0%), and Information and Communications (3.8%). There was a marked increase in vacancy density in the Public Administration sector (from 3.3% in 2015 and 3.6% in 2017, to 4.8% in 2019), as well as smaller increases in the Health and Social Work, Transport and Storage, and Primary Sector and Utilities sectors.

Vacancy density decreased across most other sectors, with this fall particularly marked in the Arts and Other Services sector, which continued the trend since 2015 (decreasing from 5.2% in 2015 to 4.2% in 2017 and to 2.9% in 2019).

The survey also identifies the occupational groups where vacancies exist.[15] The pattern of vacancy density by occupation is largely unchanged from 2017 and, as has been the case in all previous versions of the ESS series, the occupation with the highest number of vacancies as a proportion of employment was Associate Professionals (at 7.2%).

Reflecting the overall fall in vacancy density, vacancy density dropped across most occupational groups, with significant decreases in the Skilled Trades, Sales, and Elementary groups.

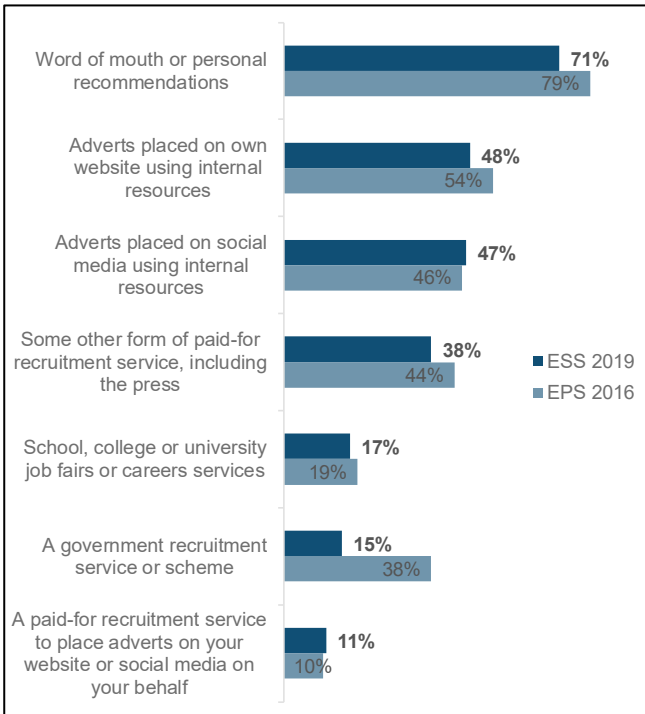
Table A.2.2 in Appendix A provides a detailed breakdown of vacancy incidence, volumes and density by occupation.

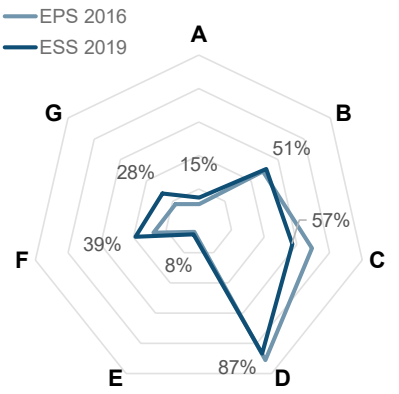
Recruitment methods

Employers with vacancies were asked what methods they had used in the last 12 months to recruit new staff. As Figure 2-3 shows, the most common recruitment methods used remained word of mouth or personal recommendations, followed by adverts placed on the company's own website and adverts placed on social media, similar to the pattern seen in the 2016 Employer Perspectives Survey.

[15] See Appendix D: Occupational Coding for definitions and example types of job roles included under the occupational groupings.

Figure 2-3 Recruitment methods used in the last 12 months





KEY	BROAD RECRUITMENT METHOD
A	Word of mouth only
B	Any Social Media
C	Any External Resource
D	Any Internal Resource
E	External Resources Only
F	Internal Resources Only
G	Single Approach

Base: 2019: All employers with vacancies in Module D (10,990); 2016 (9,546)

There were, however, some changes compared with 2016, with employers tending to use more limited recruitment strategies in 2019. Significantly more employers:

- Used a single recruitment method (28% of establishments with vacancies in the last 12 months, compared with 18% in 2016);
- Only used internal recruitment methods such as relying on word of mouth or personal recommendations and placing adverts on their own website using internal resources (39%, compared with 28%), and
- Exclusively relied on word of mouth or personal recommendations (15%, compared with 11%).

At the same time, significantly fewer employers used any external recruitment methods (57%, compared with 69% in 2016).

Skill-shortage vacancies

Employers were asked if any of their vacancies were proving hard to fill, and if so if this was due to a lack of skills, experience or qualifications among applicants. This measures skill-shortage vacancies that employers are aware of. It would not include hard-to-fill vacancies that receive no applicants, which could be in itself the result of a skill shortage. 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.

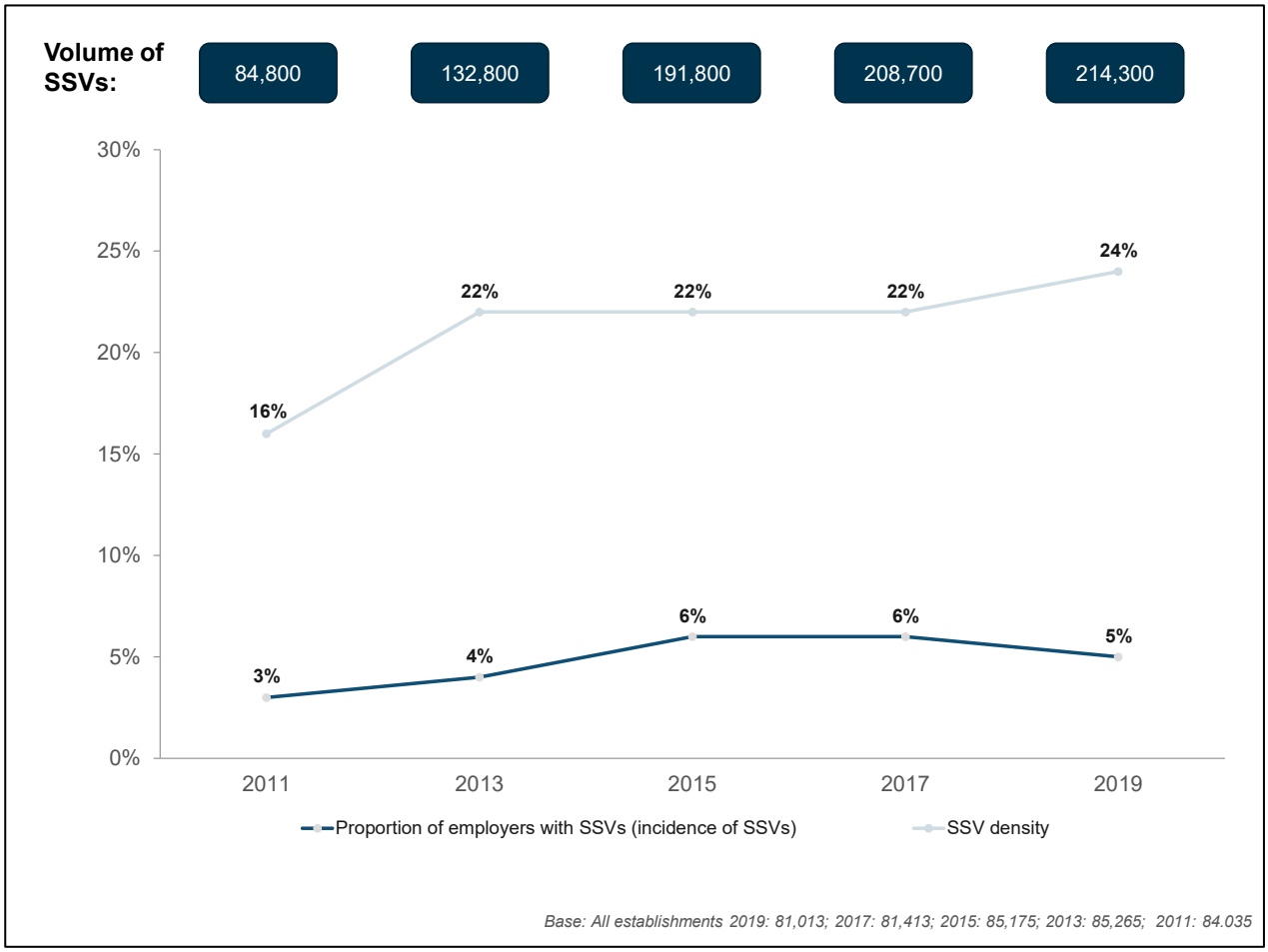
Prevalence of skill-shortage vacancies

Slightly fewer establishments had skill-shortage vacancies in 2019 (5%) than in 2017 (6%). As demonstrated in Figure 2-4, this represents a break from the trend of generally increasing incidence of skill-shortage vacancies since 2011. This fall was driven by changes in Northern Ireland and Wales, where the incidence of skill-shortage vacancies decreased from 5% to 4% and 6% to 5% respectively. In England, the incidence of skill-shortage vacancies remained unchanged, at 6% (see Figure 2-5).

Despite the overall fall in vacancies there has been a small increase in the volume of hard-to-fill and skill-shortage vacancies (from 307,000 to 314,000 and 209,000 to 214,000, respectively). The increase in the proportion of vacancies which are skill-shortage vacancies is likely to reflect the tightening labour market at the time of the survey,[16] both in terms of a continued reduction in unemployment and reduced access to migrant labour since 2016.

[16] Less freely available labour – i.e. continued falls to unemployment and increases in employment, source: ONS, *UK Labour Market: February 2020* (2020), and a sustained reduction of work-related migration, source: ONS, *Migration Statistics Quarterly Report: February 2020* (2020)

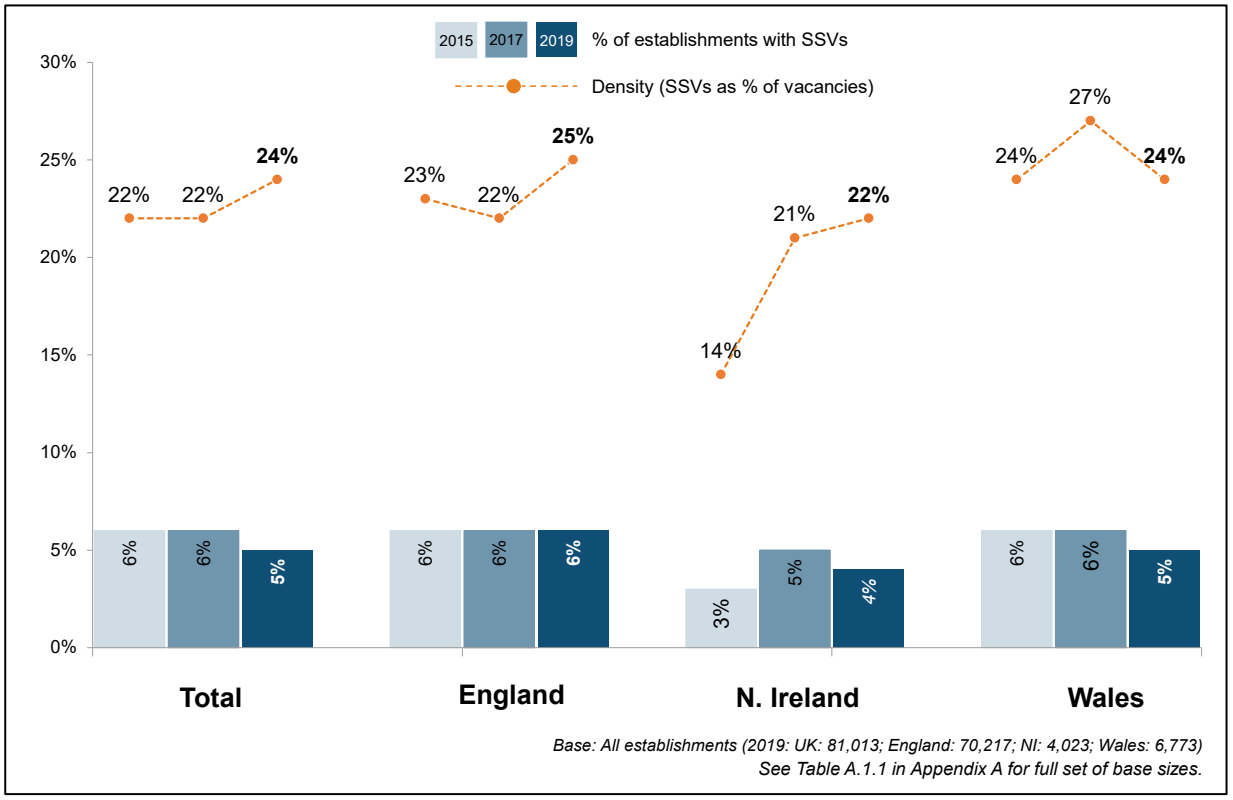
Figure 2-4 Incidence, density and volume of skill-shortage vacancies over time



The picture is not, however, uniform geographically. While the density of skill-shortage vacancies increased in England and Northern Ireland compared with 2017, it fell in Wales (where the number of skill-shortage vacancies remained relatively constant while the total number of vacancies increased).

In Northern Ireland, the skill shortage pressures that were building in 2017 were sustained. While historically, employers in Northern Ireland have found vacancies much less hard to fill than the rest of the UK, in 2019 the density of hard-to-fill and skill-shortage vacancies in Northern Ireland were broadly in line with the average (34% compared with 36%, and 22% compared with 24%, respectively).

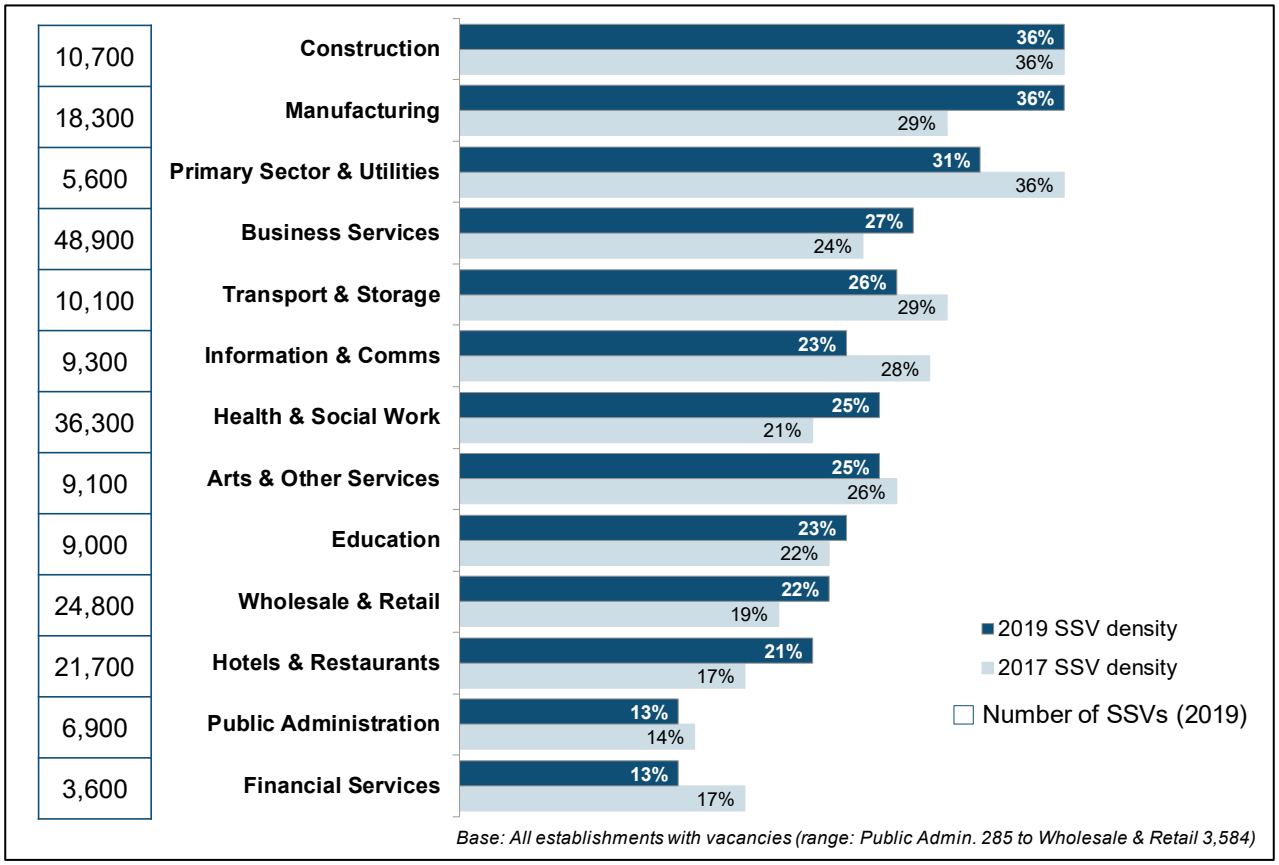
Figure 2-5 Incidence and density of skill-shortage vacancies (SSVs), by country



As in 2017, the density of skill-shortage vacancies was higher among small establishments than large establishments. Over a third of vacancies in establishments with fewer than five employees were proving hard-to-fill due to difficulties in finding applicants with appropriate skills, qualifications or experience (34%). This compares with a fifth (20%) among establishments with 100 or more employees.

As shown in Figure 2-6, the experience of skill-shortage vacancies varied by sector. Reflecting the relative size of the sectors, skill-shortage vacancies were most *numerous* in the Business Services and Health and Social Work sectors. Skill-shortage vacancy *density*, however, was highest in the Construction and Manufacturing sectors, where almost two-fifths of vacancies were classed as skill-shortage vacancies.

Figure 2-6 Number and density of skill-shortage vacancies (SSVs), by sector



The sectoral pattern of skill-shortage vacancy density, in terms of the ordering of sectors from highest to lowest density (as in Figure 2-6, above), was broadly similar to both 2017 and 2015: Construction and Primary Sector and Utilities remained among those most affected by skill-shortage vacancies, and Public Administration and Financial Services remained among those least affected (despite Public Administration seeing proportionately the largest increase in the number of overall vacancies, indicating that the increased volume of vacancies in this sector had not at the time of interview led to significant challenges in terms of finding applicants with suitable skills).

There were, however, some notable changes in the density of skill-shortage vacancies within sectors, with increased densities in:

- Manufacturing (from 29% in 2017 to 36%);
- Health and Social Work (from 21% to 25%);
- Business Services (from 24% to 27%);
- Wholesale and Retail (from 19% to 22%); and
- Hotels and Restaurants (from 17% to 21%).

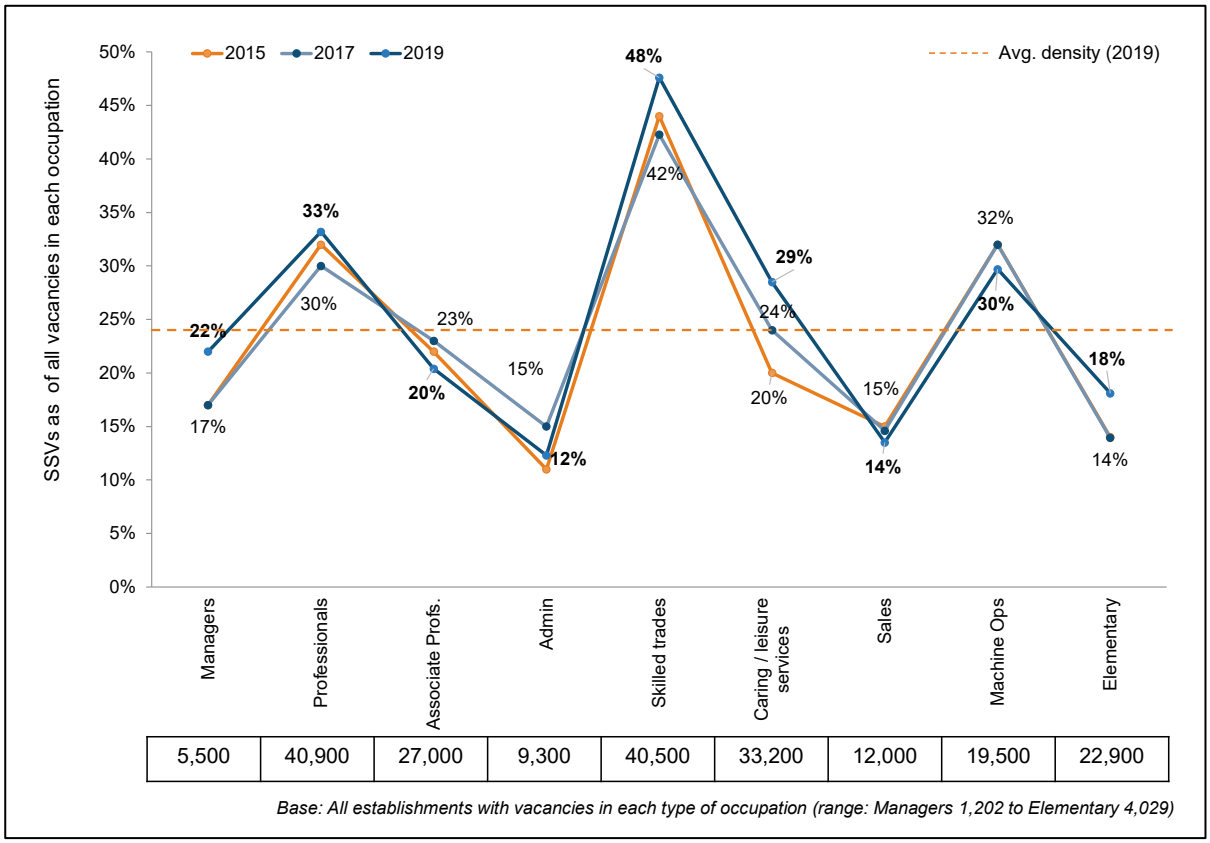
The sectors with the biggest decreases in skill-shortage vacancy density were Primary Sector and Utilities (from 36% to 31%), Information and Communications (from 28% to 23%), and Financial Services (from 17% to 13%). Despite this fall, the Primary Sector and Utilities sector also reported one of the biggest increases in overall vacancy density, indicating that new vacancies were proving relatively easy to fill.

Table A.2.3 and Table A.2.4 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. Nearly half of vacancies for such roles were proving hard to fill for skills-related reasons (a skill-shortage vacancy density of 48%). This occupation has had the highest density of skill-shortage vacancies in all previous iterations of the ESS series, and the skills situation has intensified in 2019, with skill-shortage vacancy density increasing by the highest amount of all occupation groups (from 42% to 48%).

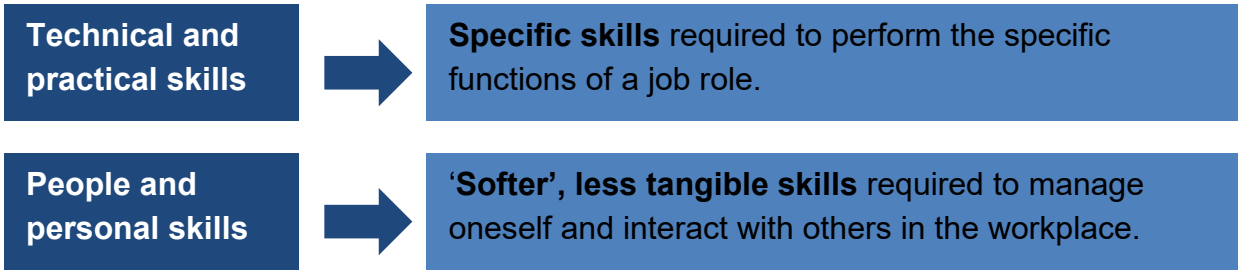
As illustrated in Figure 2-7, the pattern of skill-shortage vacancy density by occupation was broadly the same as in 2015 and 2017, though the density had been increasing among Professionals (from 30% in 2017 to 33%), Caring and Leisure Services (from 24% to 29%), Managers (from 17% to 22%), and Elementary (from 14% to 18%) roles (as well as for Skilled Trades, as already discussed).

Figure 2-7 Density and number of skill-shortage vacancies (SSVs), by occupation



Skills lacking in the labour market

Employers with skill-shortage vacancies were read a list of skills and asked, for each occupation in which they reported skill-shortage vacancies,[17] which skills were lacking. The specific skills that employers perceive to be lacking among applicants can be broadly grouped into two categories:



The skills lacking across these two categories of skills are shown in Figure 2-8. The data in this figure are based on the total number of skill-shortage vacancies, as opposed to establishments with skill-shortages vacancies.[18]

Technical and practical skills

Looking first at technical and practical skills, 84% of skill-shortage vacancies were at least partially caused by a lack of technical or practical skills in applicants. This represents a decrease from a figure of 88% in 2017. However, as shown in Figure 2-8 the prevalence of specific technical and practical skills lacking among the current labour market was similar to 2017. One notable exception to this was the proportion of skill-shortage vacancies caused by basic numerical skills, which dropped by six percentage points.

Of the specific technical and practical skills lacking, a lack of specialist skills or knowledge needed to perform the role was the most commonly reported skill shortage. In line with 2017, this was mentioned as being at least a partial cause of nearly two-thirds of skill-shortage vacancies (63%).

[17] Up to a maximum of two occupations chosen at random.
[18] 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%.

Among the other technical and practical skills lacking, it is possible to group some of the skills. A lack of ‘operational skills’, including knowledge of products and services offered, was at least partially responsible for 45% of skill-shortage vacancies, similar to levels reported in 2015 and 2017 (44% and 43% respectively). As in 2017, shortages of such skills were especially prevalent among employers in the Wholesale and Retail sector, and appear to be increasingly prevalent among employers in the Financial Services sector (in both sectors a lack of such skills was at least partially responsible for 53% of skill-shortage vacancies; in Financial Services this represented an increase from 42% in 2017).

A lack of ‘complex analytical skills’ remains common. Approaching half (45%) of skill-shortage vacancies were attributed to a lack of this group of skills, although they were slightly less prevalent than in 2017 (48%), continuing a downward trend from 2015 (50%). Within this grouping, the most prevalent was a lack of complex problem-solving skills (39%). A lack of complex analytical skills was most prevalent in the Information and Communications and Public Administration sectors, where they contributed to nearly three-fifths (58%) of skill-shortage vacancies.

A lack of basic level skills, defined here as basic numerical or basic IT skills, contributed to a third of skill-shortage vacancies (34%), representing a slight decrease from 2017 (39%). These skills contributed to a larger proportion of skill-shortage vacancies for the following groups of employers: those in Northern Ireland (46%, compared to 38% in Wales and 33% among those in England); smaller employers (42% among employers with 2 to 4 employees compared to 32% among large establishments with 100 or more staff); and employers in Transport and Storage (43%) and Primary Sector and Utilities (41%).

Among employers in Wales, the proportion of skill-shortage vacancies at least partially caused by a lack of oral and/or written Welsh language skills has remained stable (at 19% and 17%, respectively). A lack of such skills was particularly prevalent among Welsh employers in the Health and Social Work and, to a lesser extent, Education sectors.

People and personal skills

Turning to people and personal skills, 66% of skill-shortage vacancies were at least partially caused by a lack of people and personal skills. This represents a substantial drop from 2017 (75%), falling closer to 2015 levels (70%). Technical and practical skill shortages were already more prevalent than people and personal skill shortages in 2017, and in 2019 this difference became more pronounced. The largest decrease in incidence of this type of skill-shortage vacancy occurred among larger employers; the proportion of skill-shortage vacancies among employers with 100 or more employees that were related to a lack of people or personal skills decreased by 16 percentage points, compared with a decrease of 5 percentage points among those with fewer than 100 employees.

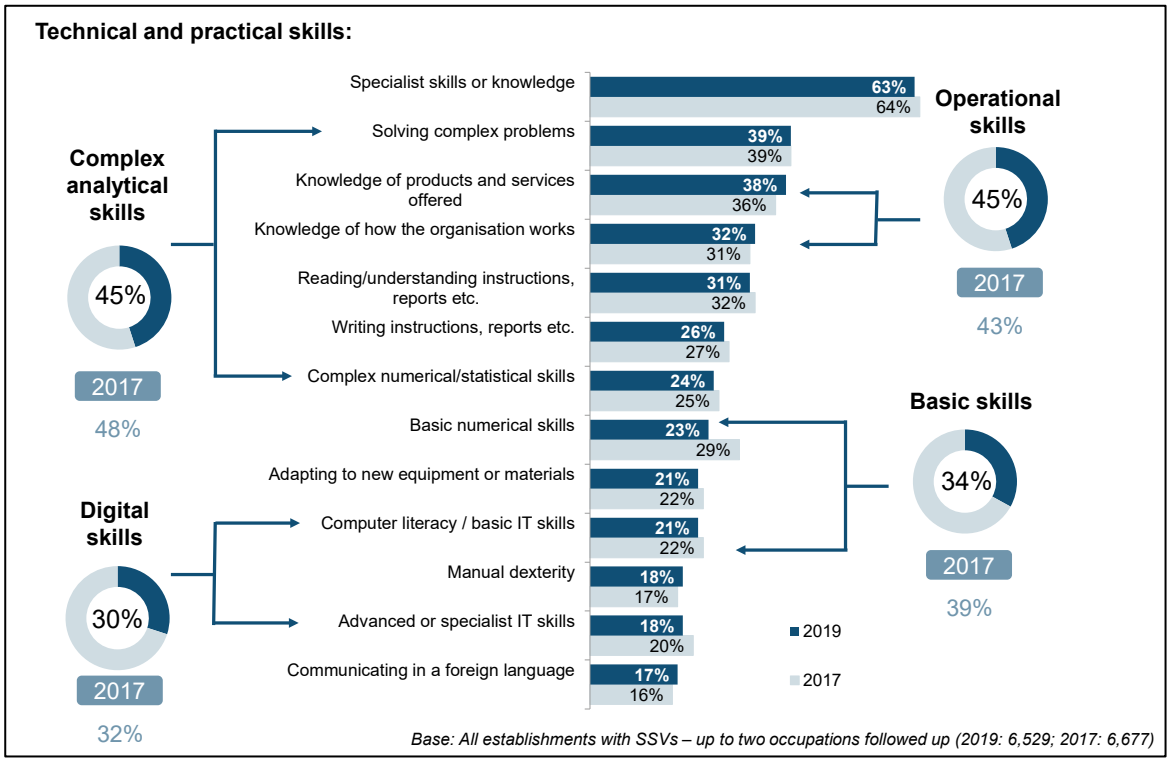
As was the case in previous waves of ESS, the most common skill of this type lacking in the labour market was the ability to manage one's own time and prioritise tasks – however the proportion of skill-shortage vacancies at least partially attributed to this has dropped since 2017 (from 50% to 45%). This represents a trend across most people and personal skills, which were generally less commonly cited as a reason for skill-shortage vacancies than in 2017 and 2015, although with 2019 figures generally being closer to those found in 2015.

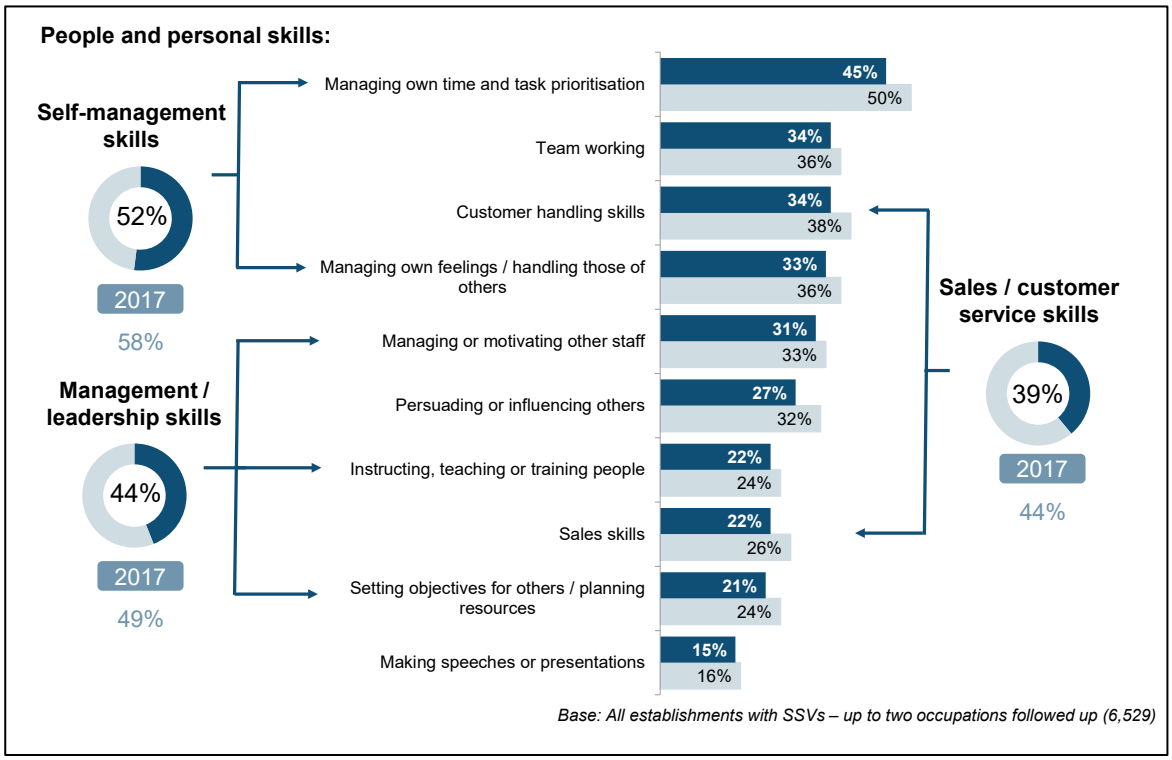
When time management and task prioritisation skills are combined with the ability to manage one's own feelings and handle the feelings of others – which was cited as a skill lacking for 33% of all skill-shortage vacancies – just over half (52%) of skill-shortage vacancies were at least partly caused by a lack of 'self-management skills'. As in 2017, a lack of self-management skills was particularly prevalent for employers in the Hotels and Restaurants sector (a factor for 65% of all skill-shortage vacancies in the sector).

Over two-fifths (44%) of skill-shortage vacancies were at least partially attributable to a lack of 'management and leadership' skills, such as managing or motivating other staff, persuading and influencing others, and setting objectives and/or planning resources. Again, in line with 2017, a lack of management and leadership skills was most prevalent for employers in the Hotels and Restaurants sector (54%).

Another group of skills that were commonly lacking were 'sales and customer skills' – such as customer handling skills and sales skills – which were cited as a cause of just under four-in-ten (39%) skill-shortage vacancies. As was the case in 2017, a lack of such skills was particularly prevalent in the Arts and Other Services (55%) and Wholesale and Retail (50%) sectors. There was a sharp drop in the proportion of Financial Services skill-shortage vacancies attributable to a lack of these skills, with this now falling in line with the overall average.

Figure 2-8 The skills found difficult to obtain from applicants[19]





[19] Note that 'basic skills' category, as shown in Figure 2-8 ('Technical and practical skills'), includes 'basic numerical skills and understanding' and 'computer literacy / basic IT skills'. It does *not* include 'reading / understanding instructions, reports, etc.' or 'writing instructions, reports, etc.'.

The impact of skill-shortage vacancies

Nearly all of the 5% of employers that reported skill-shortage vacancies said that they had an impact on business performance (94%), as shown in Figure 2-9. In many cases the impact was significant.[20] As was the case in 2017, the most common impact was an increased workload for staff (84%), and in every case the proportion of employers with skill-shortage vacancies reporting the impacts of these skills shortages was similar to findings in 2017.

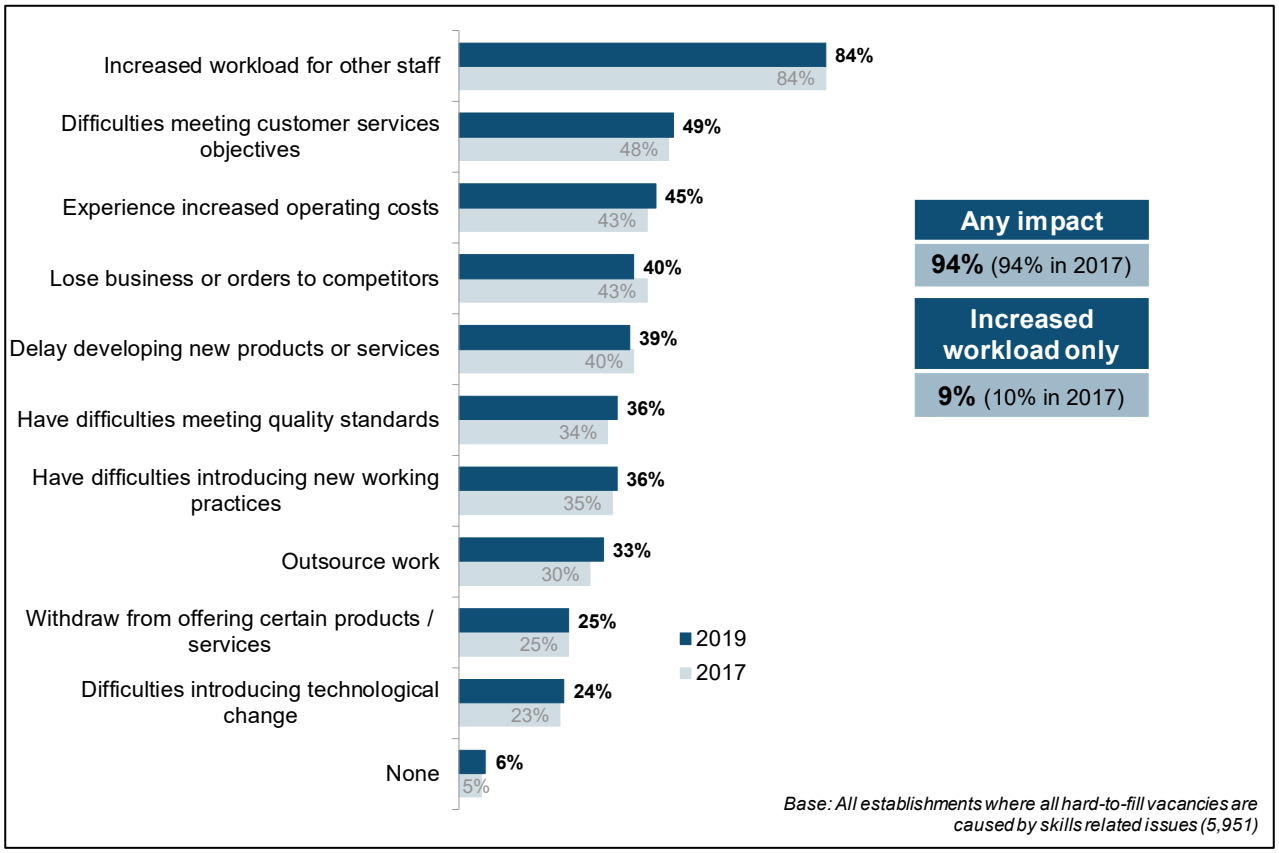
A number of impacts have a direct financial impact on the establishment, including a loss of business or orders to competitors (40%) and increased operating costs (45%). A loss of business to competitors was more commonly reported by smaller establishments, whereas increased operating costs were more common among larger establishments. Smaller establishments were also more likely to withdraw from certain product lines as a result of skill-shortage vacancies (31% of establishments with under 5 employees, compared to 12% of establishments with 250 or more staff).

The impact of skill-shortage vacancies varied to some degree by sector. Employers in the Education sector were particularly likely to report skill shortages caused problems meeting quality standards (47% compared to 36% of employers across all sectors, and an increase from 35% in 2017).

Other notable sectoral differences included employers in the Health and Social Work sector being more likely to report increased operating costs as a result of skill-shortage vacancies (51% of Health and Social Work employers – unchanged from 2017 – compared to 45% overall), and Primary Sector and Utilities and Construction employers being more likely to address skill-shortage vacancies by resorting to outsourcing work (each 46%, compared to 33% overall – a similar pattern to 2017).

[20] 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 (68%) – in part reflecting that the majority had just a single vacancy that was proving hard-to-fill – this was a suitable sample from which it was possible to gain a robust measurement.

Figure 2-9 Impact of skill-shortage vacancies (prompted)



3. The internal skills challenge

Chapter summary

Overall, 13% of employers reported skills gaps within their workforce, unchanged from 2017. However, the proportion of all employees considered not to be fully proficient by their employer has increased slightly (from 4.3% to 4.5%), the first increase since the ESS series began in 2011. This was equivalent to 1.25 million employees lacking full proficiency, compared with 1.15 million in 2017.

This increase in skills gap density and volume marks a change in the trend seen since 2011 of overall volume and density decreasing. The change from 2017 to 2019 was driven by an increase in skills gap density in England (from 4.3% to 4.6%) that was offset slightly by decreases in Northern Ireland (from 3.8% to 3.3%) and Wales (from 4.7% to 4.0%).

The sectoral profile of skills gap density has remained relatively consistent, and this remained highest in the Hotels and Restaurants sector (6.9% of the workforce considered to have a skills gap) and lowest in the Education sector (2.8%). There was an increase compared with 2017 in the proportion of the workforce not considered fully proficient in Public administration (a 1.5 percentage point increase) and a decrease in the Financial Services sector (of 1.2 percentage points), the latter returning to a skills gap density similar to 2015.

Elementary staff occupations/roles experienced the greatest increase in skills gap density compared to 2017 (1.7 percentage points) and 2015 (1.1 percentage points) and was the occupation with the highest skills gap density (8.0%). In comparison, as in previous years, managerial occupations had the lowest skills gap density (2.2%).

The skills lacking in the workforce remained relatively consistent with findings in previous years, with skills relating to self-management still the most prevalent. The most commonly lacking skills were the ability to manage their own time and to prioritise tasks (a factor in 60% of skills gaps), specialist skills or knowledge needed to perform the role (53%) and team working (50%).

Skills gaps had an impact on most employers experiencing them (66%, similar to the 65% in 2017). Skills gaps were more likely to impact large employers (74% for those with 100 or more employees compared to 64% for those with 2 to 4 staff). The most common consequence of skills gaps remained increased workloads for other members of staff.

Introduction

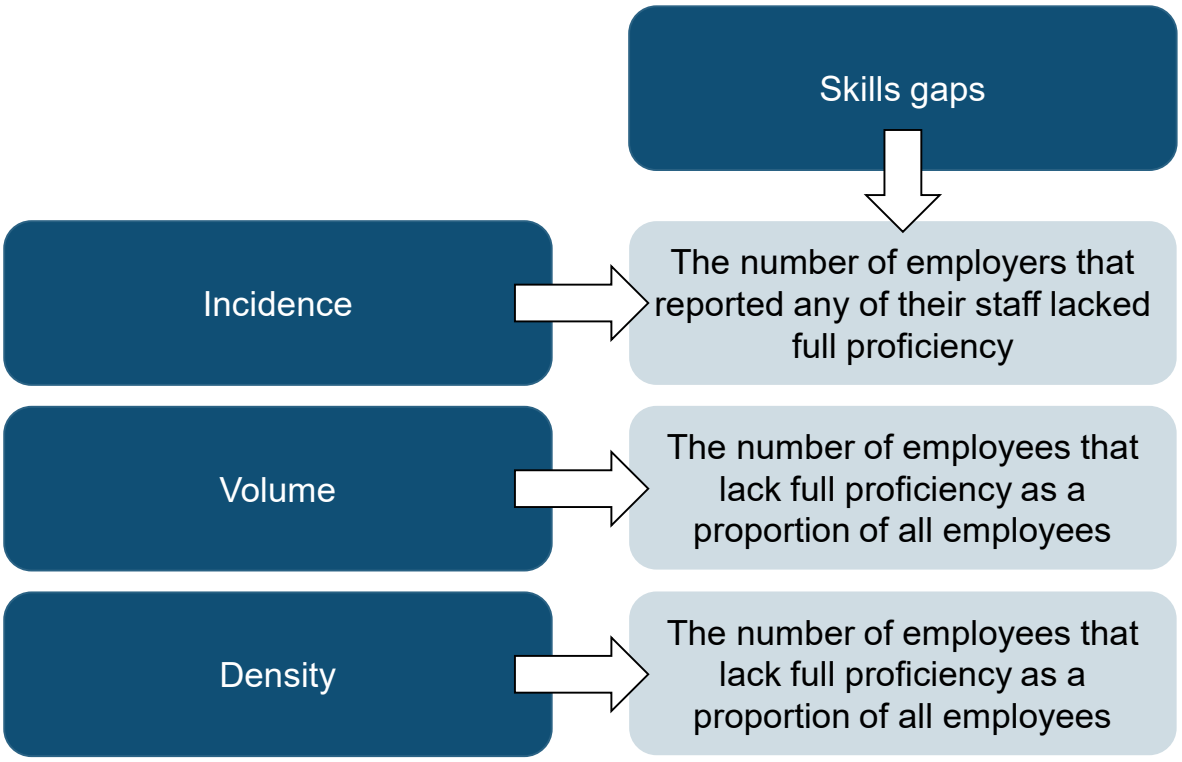
The previous chapter considered challenges faced by employers in terms of finding suitably skilled staff when recruiting. Results showed that the number of vacancies had decreased since 2017, but despite this the number and proportion of these that are proving hard to fill because of skills shortages among applicants had increased.

This chapter explores the incidence and impact of skills gaps within the existing workforce. These can arise as a result of not being able to find suitably skilled applicants, or intentionally taking on recruits who are not fully experienced in order to train them up to the organisation's way of working, but can also arise for a host of other reasons such as the skills needed within an organisation changing. Some skills gaps may be by their nature temporary, for example where new staff have been recruited who are not yet fully trained or experienced in their new role. However, others can be more persistent and a result of under-investment in training and development, staff reluctance to develop existing skills or develop new ones, or high staff turnover. Persistent skills gaps can hinder an establishment's ability to function effectively and harm its productivity, profitability and ability to innovate in terms of internal processes and regarding new products or services.

It is worth bearing in mind that the survey only captures the skills gaps that 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. Some commentators have termed these 'latent skill gaps'.[21]

This chapter covers the incidence, volume, density, profile and causes of reported skills gaps, overall and at a sectoral and occupational level. The relationship between the incidence of skills gaps, their volume and their density is demonstrated in the diagram below. It also considers the specific skills that establishments reported their staff to be lacking and the impact that skills gaps have on these employers.

[21] Terence Hogarth, Rob Wilson, *Skills Matter: a Synthesis of Research on the Extent, Causes and Implications of Skill Deficiencies* (2001)

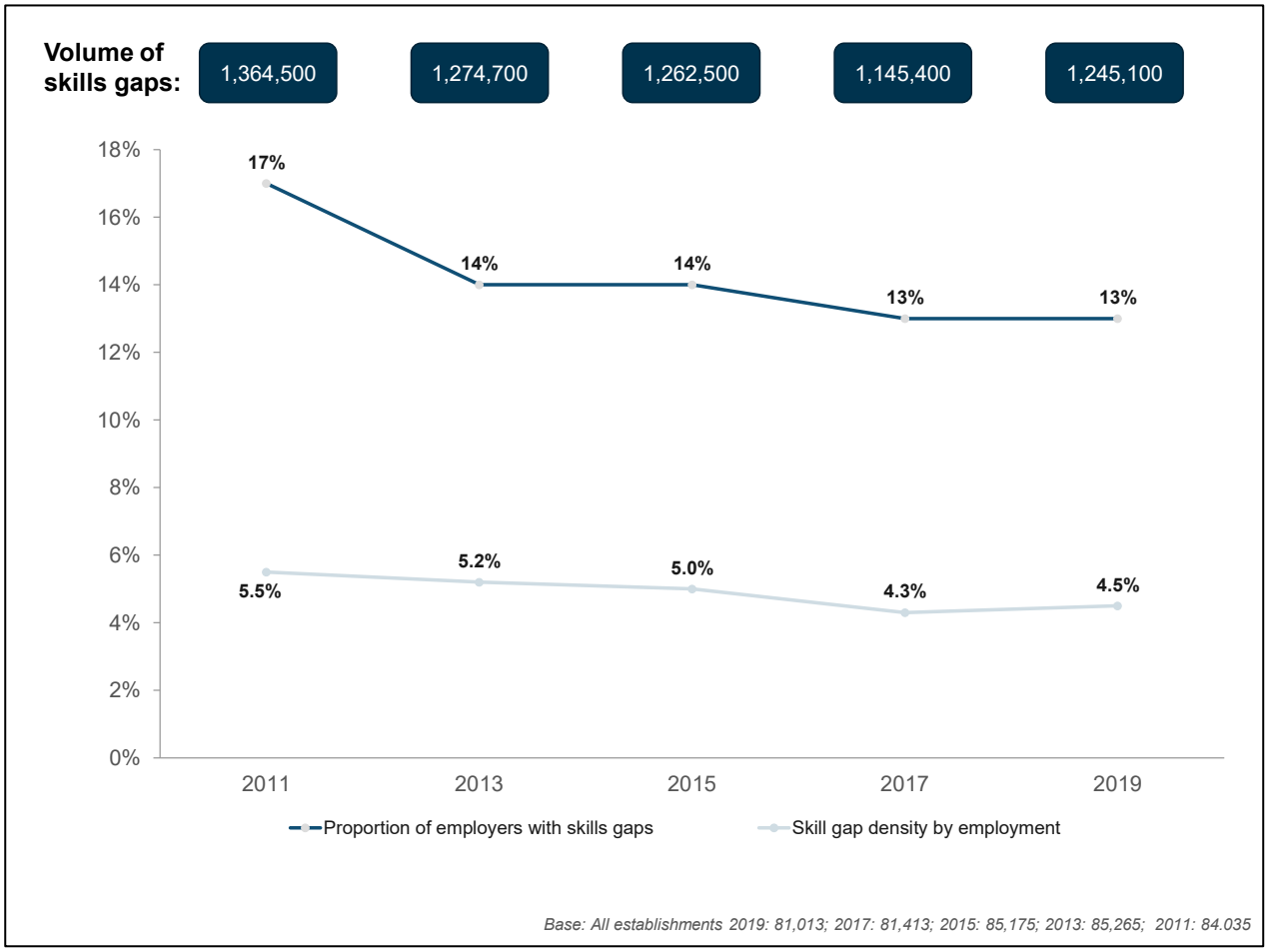


Incidence, volume and density of skills gaps

The vast majority of employers (87%) considered all of their staff to be fully proficient at their job. As shown in Figure 3-1, the proportion who reported that at least some of their staff were not fully proficient has remained relatively consistent over the last five years, ranging from 14% in 2015 to 13% in 2017 and 2019.

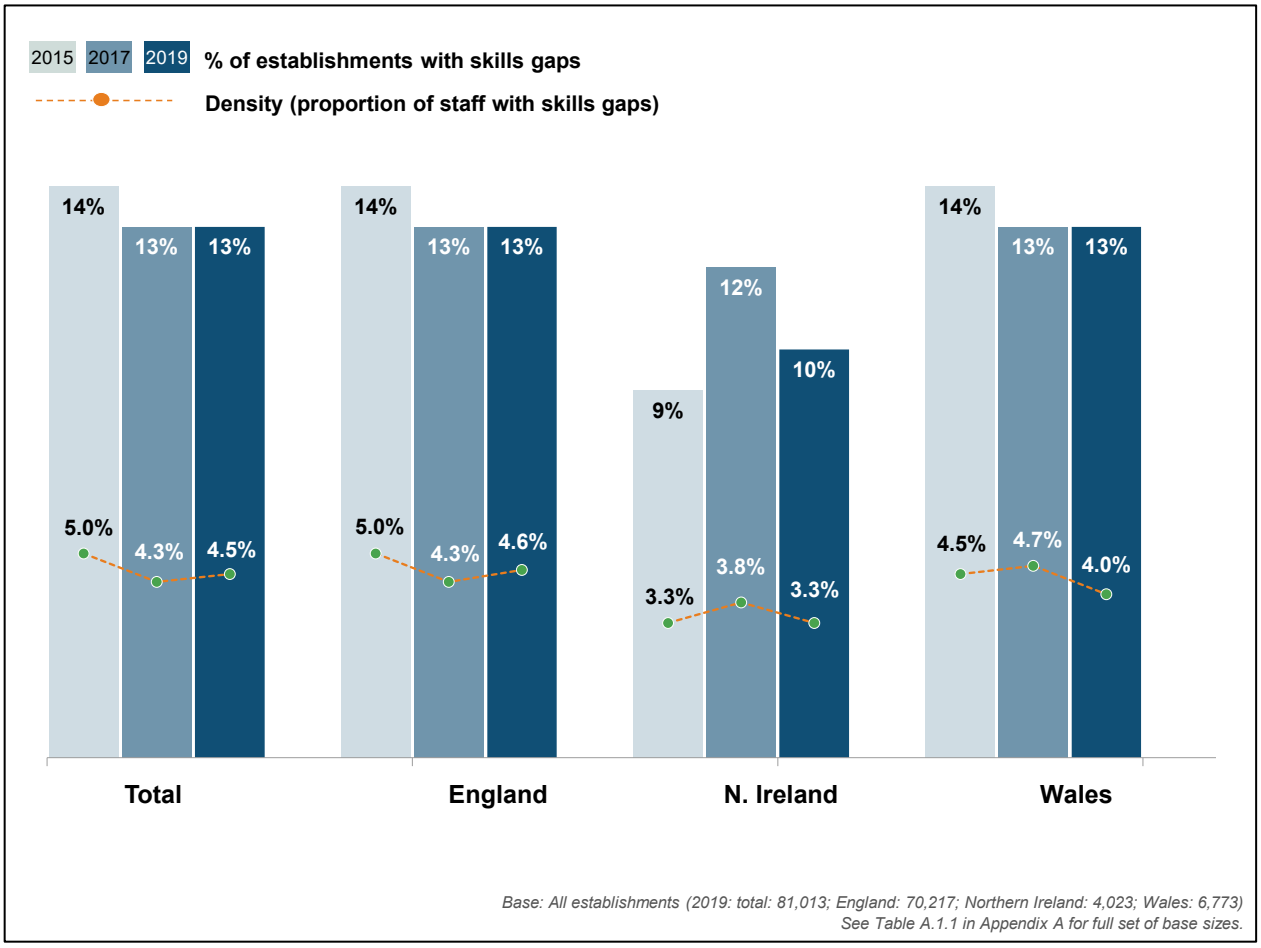
Skills gap density (the proportion of the workforce lacking full proficiency) has, however, risen for the first time since 2011, albeit slightly. This proportion decreased during the period 2011 to 2017 (from 5.5% to 4.3%), but rose slightly to 4.5% in 2019, as demonstrated in Figure 3-1. In total, 1.25 million employees across England, Northern Ireland and Wales were felt to be lacking proficiency, an increase on 1.15 million employees in 2017, though still fewer than in 2015.

Figure 3-1 Incidence, density and volume of skills gaps over time



The slight increase in skills gap density since 2017 has been driven by an increase in skills gaps density in England. Skills gap density has fallen between 2017 and 2019 in Northern Ireland (from 3.8% to 3.3%) and Wales (from 4.7% to 4.0%), while it has risen slightly in England (from 4.3% to 4.6%). In each nation skills gap density is lower or at the same level in 2019 than in 2015.

Figure 3-2 Incidence and density of gaps over time, by country



The proportion of establishments that reported any skills gaps among their staff increased with the size of the establishment from 5% of establishments with 2 to 4 employees to around two-fifths (38%) of those with 100 or more employees. This mirrored findings in previous iterations of ESS.

The *density* of skills gaps was also lower among smaller establishments. Establishments with 2 to 4 employees reported a smaller proportion of their workforce as not fully proficient (2.2%) than those with 5 to 24 employees (4.3%) or 25 or more employees (4.9%). This mirrored findings in 2017 (2 to 4 employees: 2.4%, 5 to 24: 4.2% and 25 or more: 4.6%).

Table A.3.1a and Table A.3.1b in Appendix A provide a full breakdown of the incidence, number and density of skills gaps by size of establishment and sector. Table A.3.2 in Appendix A provides the density of skills gap by country.

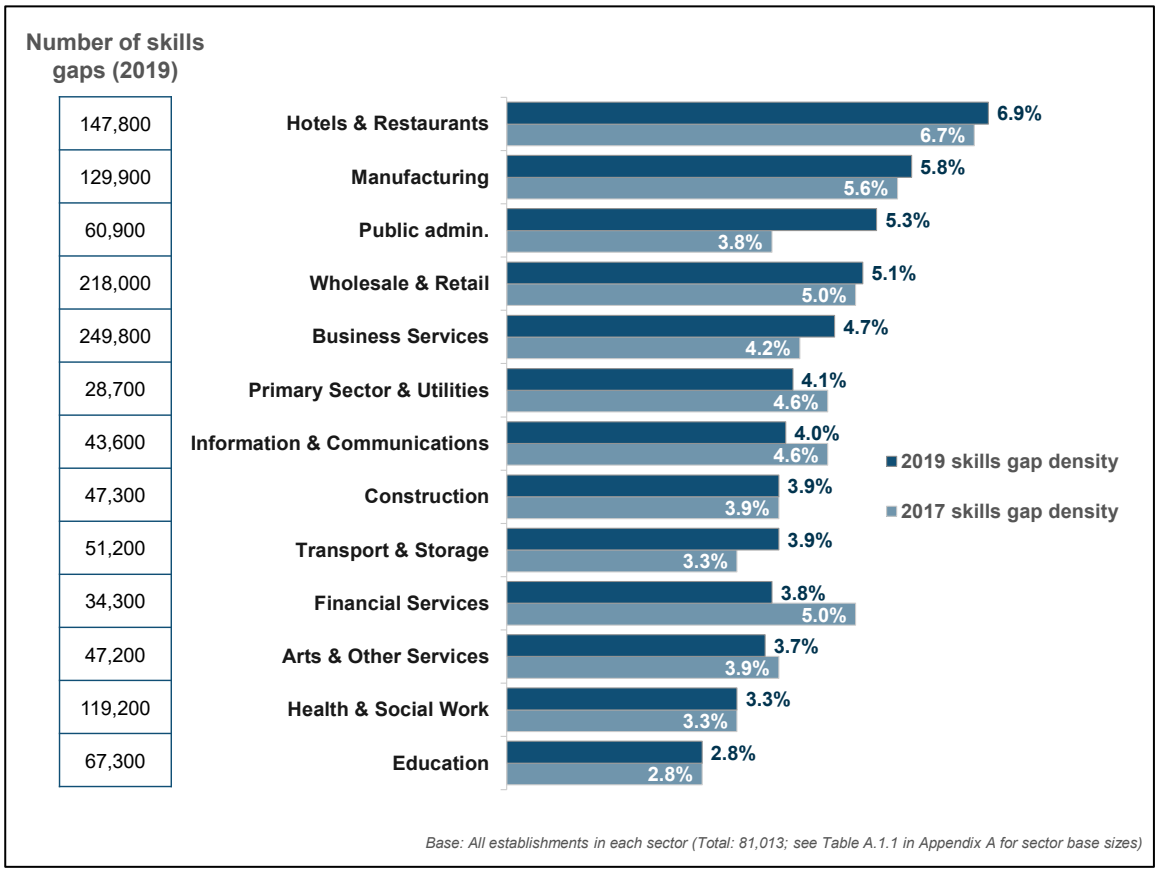
Sectoral distribution of skills gaps

The slight overall increase in skills gap density from 2017 to 2019 was broadly reflected across most sectors, as shown in Figure 3-3. The sectors with the highest and lowest skills gap densities were broadly consistent with findings in 2017. Hotels and Restaurants (6.9%) and Manufacturing (5.8%) remained the two sectors with the highest proportions of their workforces lacking full proficiency, with the skills gap density in both increasing slightly since 2017, while Health & Social Work (3.3%) and Education (2.8%) remained the sectors with the lowest skills gap densities.

Two sectors saw particularly noteworthy changes in their skills gap densities. Public Administration saw a particularly large increase in skills gap density from 3.8% in 2017 to 5.3% of the workforce, although this was still lower than in 2015 (6.9%).

In contrast, the Financial Services sector saw a marked decrease in skills gap density, falling from 5.0% in 2017 to 3.8% in 2019, returning to levels found in 2015 (3.6%). This was accompanied by a 3% contraction in workforce size, and it may be the case that this reduction in employment has disproportionately affected staff lacking full proficiency (i.e. fully proficient staff were more likely to be retained).

Figure 3-3 Number and density of skills gaps by sector



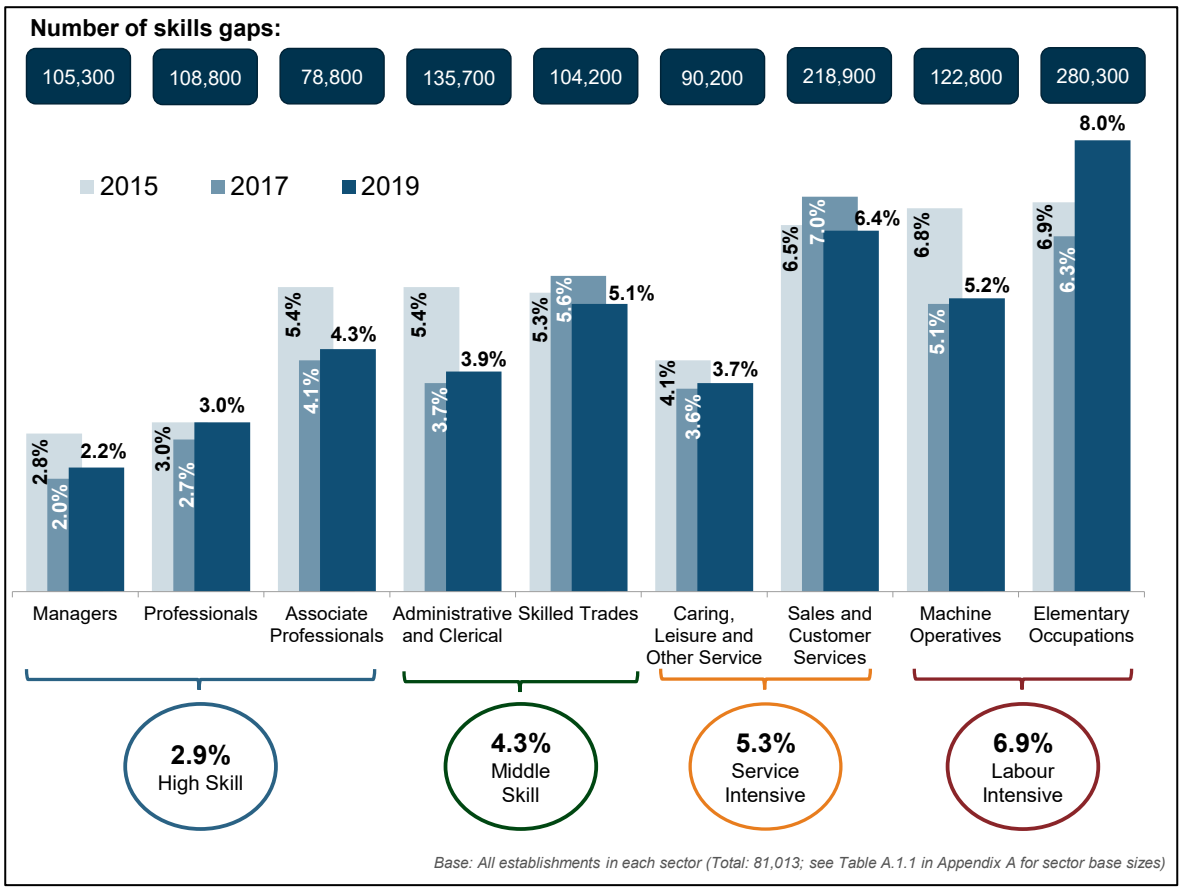
Although skills gap *density* was highest in the Hotels and Restaurants and the Manufacturing sectors, the highest *number* of skills gaps existed in the Business Services sector (249,800) and the Wholesale and Retail sector (218,000 skills gaps). Together these two sectors accounted for 38% of all skills gaps, higher than their combined share of total employment (34%).

Despite having the lowest skills gap density overall, Northern Ireland had a particularly high density of skills gaps in the Manufacturing sector (8.3%). In Wales too, Manufacturing had the highest skills gap density (8.3%) although the figure was also high in the Hotels and Restaurants sector (7.2%).

Occupational distribution of skills gaps

Most occupations saw a slight increase in the proportion of staff lacking full proficiency from 2017 to 2019, with the exceptions of Skills Trades and Sales and Customer Services occupations. Elementary Occupations saw a particularly large increase in skills gap density, rising from 6.3% of the workforce in 2017 to 8.0% in 2019. This was the only occupational group where skills gap density in 2019 exceeded the level in 2015.

Figure 3-4 Number and density of skills gaps by occupation



The overall increase in skills gaps density compared to 2017 was mainly the result of an increase within Labour-intensive occupations (+1.0 percentage point); in other occupational groups there was either a slight increase (+0.2 percentage points in the High-skill grouping), or modest decreases (Service-intensive -0.3 percentage points).

At a national level, skills gap density for Elementary occupations was lower in Northern Ireland than at the overall level (4.9% in Northern Ireland compared to 8.0% overall) and for Caring, leisure and other service staff (1.6% in Northern Ireland compared to 3.8% overall). In general, skills gap density was lower in Northern Ireland (3.3%) than at the overall level (4.5%).

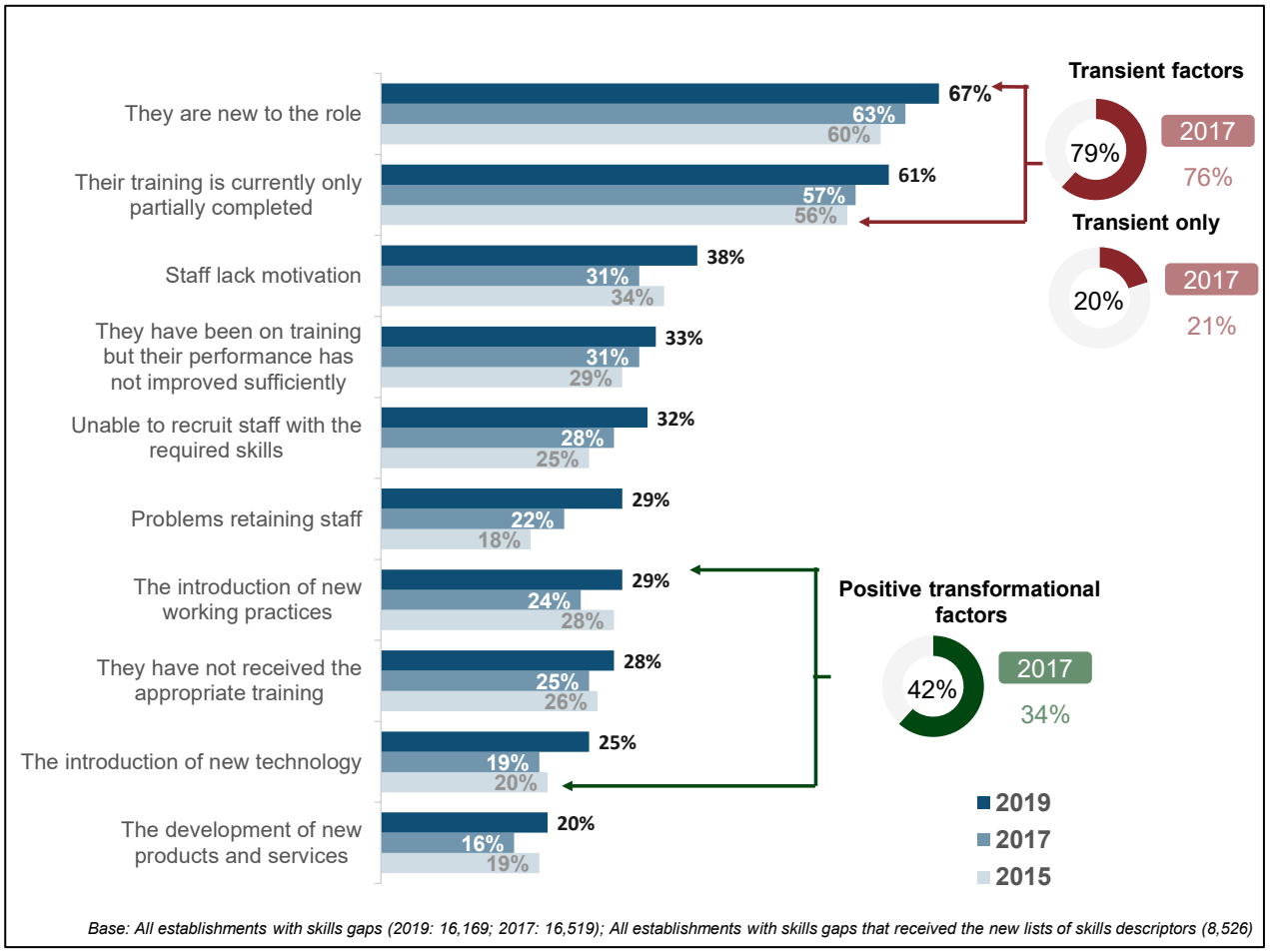
In Wales, the two key differences in terms of skills gap density by occupation were that Elementary staff in Wales had a lower skills gap density than the overall level (5.9% compared to 8.0%) while Machine operatives had a higher skills gap density in comparison (7.0% compared to 5.2%).

Causes of skills gaps

The most common causes of skills gaps were that individuals were new to the role (67%) or that their training was only partially completed (61%). These may be classified as transient skills gaps – factors which would be expected to ease naturally over time. Other common causes of skills gaps included staff lacking motivation (38%), the fact that staff had been on training but their performance had not improved sufficiently (33%) and employers being unable to recruit staff with the required skills (32%). The causes of skills gaps are presented in Figure 3-5.

The profile of these skills gaps, in terms of the ranking of causes from most common to least common, was broadly similar in 2019 as in 2017 and 2015. However, all causes of skills gaps were mentioned by more employers in 2019. The most marked increases since 2017 were regarding problems retaining staff (an increase of 8 percentage points) and the introduction of new technology causing gaps (an increase of 6 percentage points).

Figure 3-5 Main causes of skills gaps (prompted)



Transient factors (staff being new to the role or their training only being partially complete) contributed to almost four-fifths (79%) of all skills gaps, a slight increase compared with 2017 (76%) and 2015 (72%). A fifth of skills gaps were *entirely* explained by factors that one would expect to resolve themselves with time (20%), which was relatively consistent with levels in 2017 and 2015 (2017: 21%, 2015: 20%). This was higher in Northern Ireland (25% compared with 20% in England and Wales) and in Construction (29%), Arts & Other Services (26%) and Public Administration (25%). A smaller proportion of skills gaps were caused entirely by transient factors in the Transport and Storage sector, with only one in eight skills gaps (14%) caused entirely by employees being new to the role or their training being incomplete.

Another common cause of skills gaps was staff lacking motivation, a factor in around two-fifths of skills gaps (38%), though half of skill gaps among Elementary staff (51%).

Issues related to training were also a prominent cause of skills gaps. Staff having received training but their performance not sufficiently improving was a factor in a third of all skills gaps (33%), while over a quarter of all skills gaps were caused at least in part because staff had not received the appropriate training (28%). In both cases, skills gaps within the Primary Sector and Utilities sector were more likely to be caused in part by these training related issues (42% and 33% respectively).

Around a third (32%) of skills gaps were caused at least in part by an inability to recruit staff with the required skills, a slight but significant increase on the proportion in 2017 (28%), and 2015 (25%). There was no clear correlation between sectors with particularly high densities of skills shortage vacancies and sectors in which a high proportion of skills gaps were caused to some extent by an inability to recruit staff with the required skills.

There are some workplace activities such as introducing new technology or working practices which, although a cause of skills gaps in the short-term, represent a positive tendency in that it indicates employer investment in future growth. In 2019 42% of skills gaps were caused by these sorts of factors, a significant increase compared with 34% in 2017, returning to levels previously seen in 2015 (42%). The introduction of new working practices contributed to 29% of skills gaps (an increase from 24% in 2017). Similarly, the proportion of skills gaps caused by the introduction of new technology (25%, up from 19%), and the proportion of skills gaps caused by the development of new products and services (20%, up from 16%) have also increased between 2017 and 2019. The introduction of new technology was a more common contributing cause of skills gaps in Wales (30%) than in England (25%) and Northern Ireland (13%).

These increases in potentially ‘positive’ causes of skills gaps, when combined with the increase in number of transient skills gaps, may somewhat offset concerns about the rise in number of skills gaps overall. However, it is important to note that there was no difference in terms of the proportion of skills gaps that can be said to be exclusively caused by positive transformational factors (0.4% in 2019 and 0.6% in 2017), while a slightly smaller proportion of factors were exclusively transient in nature (20%, compared with 21% in 2017). When combining these factors, the proportion of skills gaps that were caused exclusively by positive or transient factors had remained the same (23% in 2017 and 2019). Consequently, it does not appear that the increase in skills gaps between 2017 and 2019 can be understood exclusively as resulting from potentially positive causes that may indicate investment in future growth.

Table A.3.4 and Table A.3.5 in Appendix A provide breakdowns of the most common causes of skills gaps by sector and occupation.

Skills lacking internally

This section examines the specific skills that employers felt were lacking among their workforce. These have been grouped into two categories:

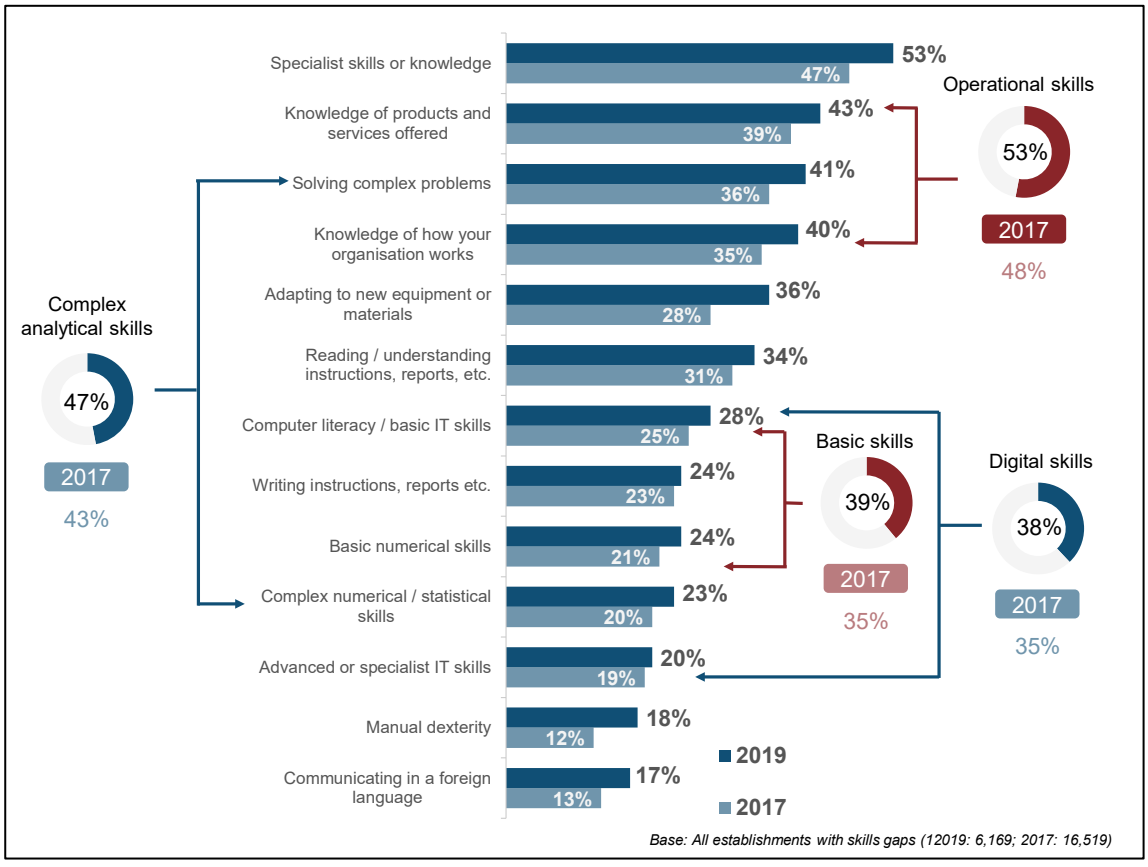
Technical and practical skills → **Specific skills** required to perform the specific functions of a job role.

People and personal skills → **'Softer', less tangible skills** required to manage oneself and interact with others in the workplace.

Technical and practical skills

A deficiency in specialist skills or knowledge required to perform the job role was a contributing factor to around half of all skills gaps (53%), rising to around seven in ten within the Financial Services and Manufacturing sectors (73% and 65% respectively).

Figure 3-6 Technical and practical skills lacking among staff with skills gaps[22]



[22] Note that 'basic skills' category, as shown in Figure 3-6 ('Technical and practical skills'), includes 'basic numerical skills and understanding' and 'computer literacy / basic IT skills'. It does *not* include 'reading / understanding instructions, reports, etc.' or 'writing instructions, reports, etc.'.

As in 2017, a lack of knowledge of a company's products, services and internal processes was also a common cause of skills gaps (43%). A need to improve such operational skills[23] contributed to more than half of all skills gaps (53%, rising to 67% in the Financial Services sector). Operational skills contributed to a greater proportion of skills gaps in 2019 than in 2017 (48%).

A lack of proficiency in complex analytical skills contributed to just under half (47%) of all skills gaps, though this skills gap was more common among establishments in the Financial Services (57%), and Health & Social Work (56%) sectors.[24]

Skills deficiencies in basic numeracy (24%) and basic IT (28%) were a contributing factor in two-fifths of skills gaps (39%). This represented a slight increase on 2017, when 35% of skills gaps were caused at least in part by basic skill deficiencies. Basic skills contributed to a greater proportion of skills gaps in Wales (47%) than in England (39%) and Northern Ireland (36%).[25] There was some relationship between business size and the proportion of skills gaps that were at least partly attributable to basic skills, with this being higher among larger businesses (250 or more employees: 46%) and lower among smaller establishments (fewer than 50 employees: 36%). In terms of sector, basic skills contributed to a larger proportion of skills gaps among Health and Social Work (57%) and Primary Sector and Utilities (52%) establishments.

Around two-fifths of skills gaps (38%) involved a deficiency in digital skills, which includes both basic computer literacy and IT skills (28%) as well as more advanced or specialist IT skills (20%). The proportion of skills gaps that can be at least partly attributed to a lack of proficiency in digital skills was higher than in 2017 (35%).

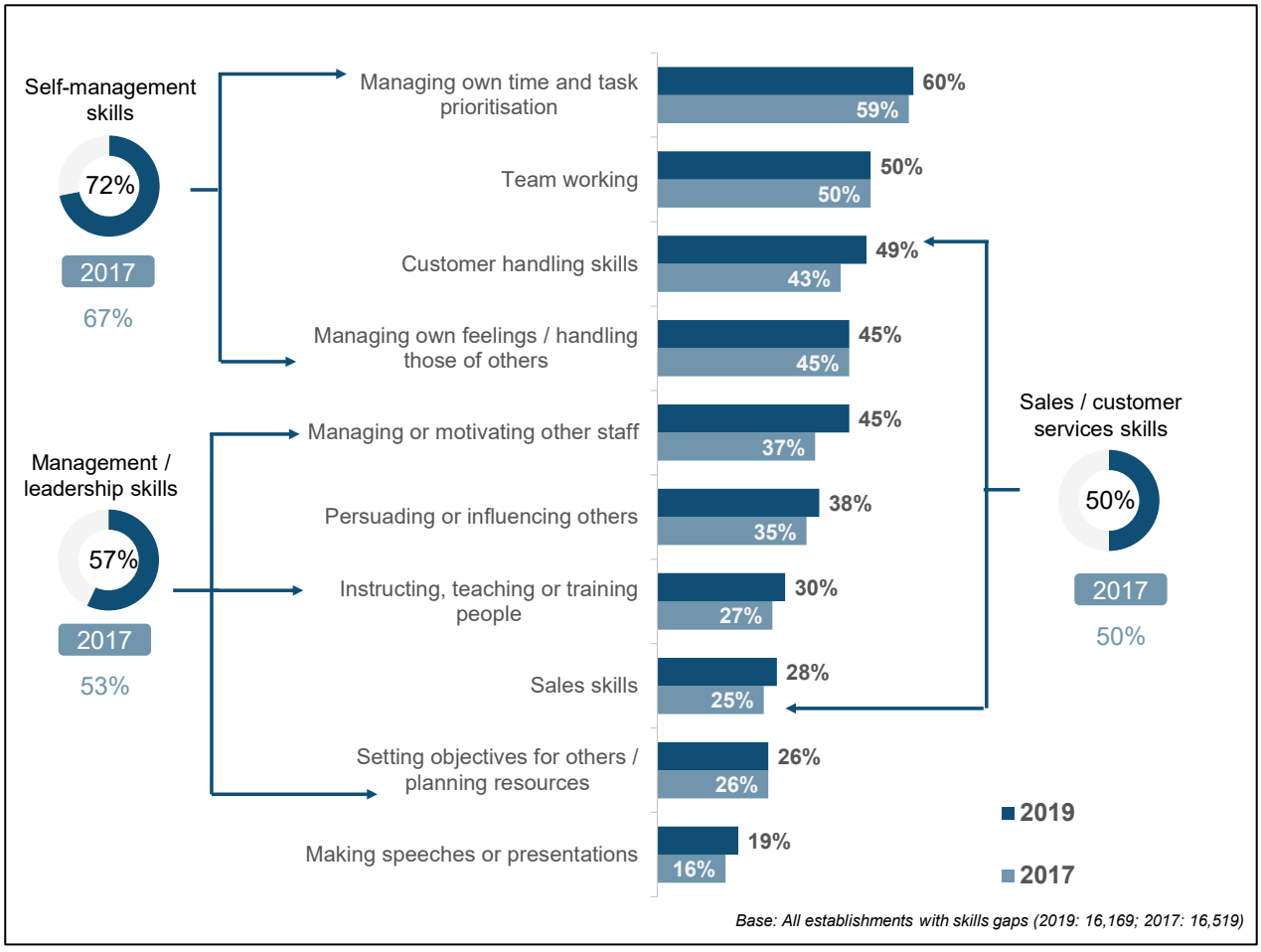
Tables A.3.6a-e in Appendix A present the technical and practical skills lacking in the workforce by occupation, nation and sector.

[23] Operational skills were defined as knowledge of products and services offered and knowledge of how your organisation works.
[24] Complex analytical skills included specialist skills or knowledge needed to perform the role and solving complex problems requiring a solution specific to the situation.
[25] Note that 'basic skills' category, as shown in Figure 3-6, includes 'basic numerical skills and understanding' and 'computer literacy / basic IT skills'.

People and soft skills

The most common people and soft skills that were identified as causing skills gaps in 2019 were broadly in line with findings in 2017, with the most common such skill lacking relating to an inability to manage their own time or prioritise their own tasks (60%). This cause of skills gaps, alongside the ability to manage one's own feelings and handle the feelings of others, which contributed to half of all skills gaps (49%), means that approaching three-quarters of skills gaps were at least partially caused by a lack of what can broadly be categorised as 'self-management skills' (72%). A lack of self-management skills was a contributing factor to a higher proportion of skills gaps in the Health & Social Work sector (80%).

Figure 3-7 People and soft skills lacking among staff with skills gaps



A lack of management and leadership skills contributed to around six in every ten skills gaps (57%), though to a higher proportion of gaps in Information and Communications (75%) and Health and Social Work (69%). As in 2017, sales and customer service skills were lacking for around half of all staff with skills gaps (50%).

Impact of skills gaps

Extent of impact

Two thirds (66%) of employers with skills gaps reported that these gaps impacted on the performance of their establishment. This was a similar proportion to 2017 and 2015 (both 65%), though slightly fewer in 2019 reported that the skill gaps were having a major impact on performance (15% compared with 17% in both 2015 and 2017).

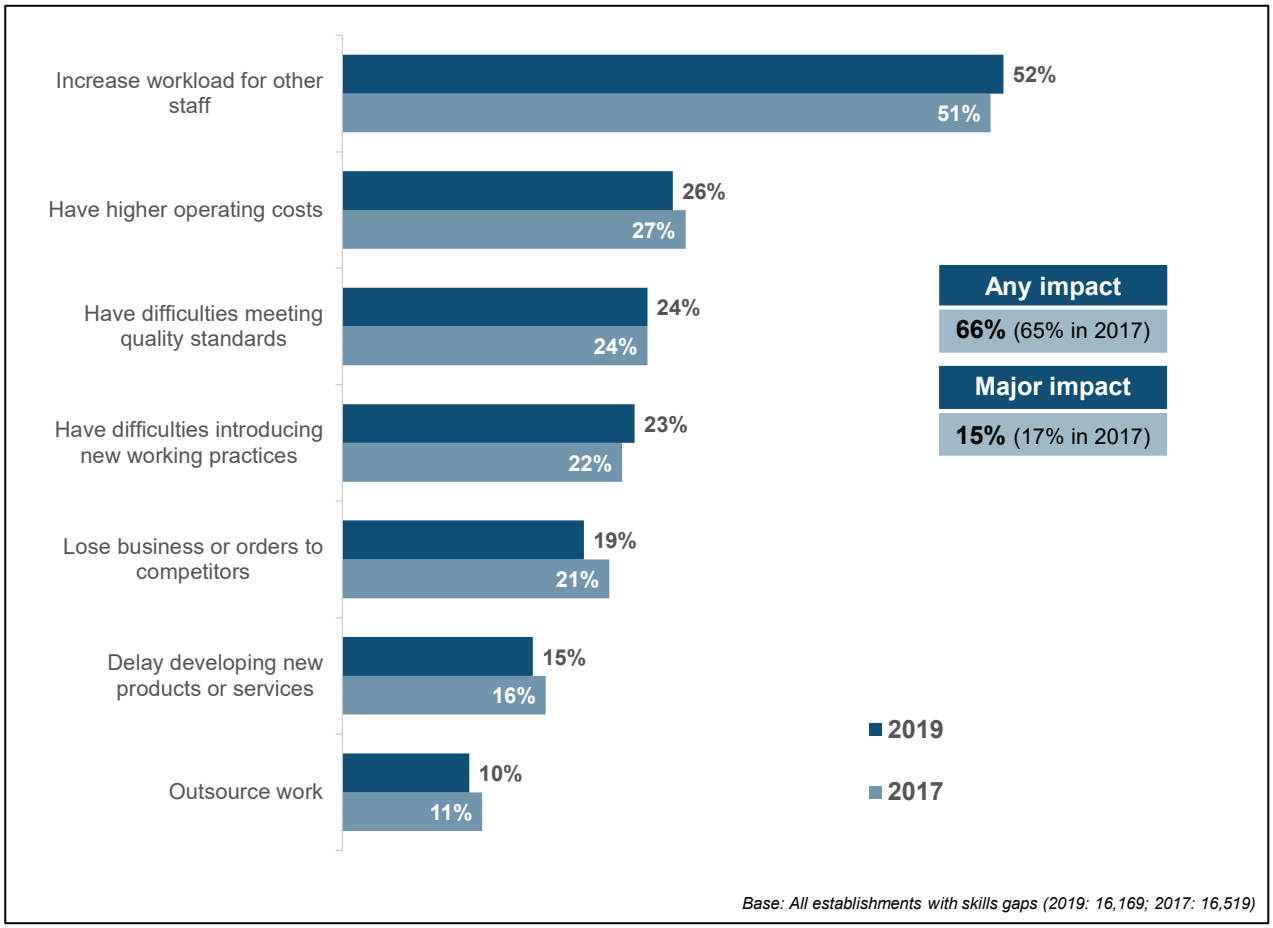
Establishments that employ 100 or more staff that had skills gaps were more likely than smaller employers to report that their skill gaps had an impact on performance (74% compared to 64% among employees with 2 to 4 employees), though those with fewer than 25 staff were more likely to report they have a major impact on performance (15% compared to 11% among employees with 250 or more employees).

There were no significant differences between nations in the reported impact of skills gaps. By sector, as in 2017, establishments in the Hotels and Restaurants sector were more likely than average to report skills gaps as having any impact (73%) or a major impact on performance (18%).

Table A.3.7 in Appendix A provides a breakdown of the extent of the impact of skills gaps by country, size and sector.

An increased workload for other staff was the most common specific impact of skills gaps, mentioned by just over half of employers with any staff lacking full proficiency (52%). This impact was more common among larger businesses (61% among employers with 100 or more staff compared to 46% for employers with 2 to 4 employees). As shown in Figure 3-8, the specific impacts resulting from skills gaps in 2019 were very similar to those described in 2017 (though there was a fall of 2 percentage points in the proportion that experienced losing business or orders to competitors).

Figure 3-8 Impacts of skills gaps (prompted)



Increased workloads could have financial implications, for example having to pay higher overtime rates. Other common impacts of skill gaps have more serious and often direct financial implications; each of the following were mentioned by around a quarter or a fifth or establishments:

- Increased operating costs (26%), which was particularly prevalent in the Transport and Storage (35%) and Hotels and Restaurants (34%) sector, as well as in Wales (29%) and among larger businesses (employers with 100 or more staff 37% compared to 22% for employers with 2 to 4 employees);
- Having difficulties meeting quality standards (24%), which was more common in the Hotels and Restaurants sector (36%);
- Having difficulties introducing new working practices (23%); and
- Loss of business or orders to competitors (19%).

Table A.3.8 in Appendix A provides a breakdown of implications of skills gaps by country, size and sector.

4. Training and workforce development

Chapter summary

Across several measures, employer engagement in training and workforce development has reduced since 2017. The proportion of employers that had trained staff fell to 61%, compared with figures of between 65% and 66% from 2013 to 2017. Only Wales saw no change in the proportion of employers training (62%). Northern Ireland employers were the least likely employers to have trained their staff (59%).

The proportion of staff trained over the last 12 months, at 60%, was the lowest figure since ESS 2011 (54%, the figure was highest at 63% in 2015). Due to general increases in the number of employees, however, there was a slight increase compared with 2017 in the total number of staff trained in the last 12 months to 16.5m (up from 16.4m in 2017). Employees in the Health and Social Work, Education and Public Administration sectors were more likely to receive training (seven in ten or more in each). By comparison, this was the case for under half of employees in Construction and Manufacturing (each 48%).

Employers had provided 99m training days over the last 12 months, equivalent to 6.0 days per annum per person trained and 3.6 days per employee. Again, these figures were lower than in 2017, when 105m training days were reported and trainees received an average of 6.4 days training. Training days fell across all nations, but the largest drop was in Wales, decreasing by more than a day to 5.1 days per trainee per annum.

Job specific training remained the most common form of training provided by employers (84% of those that trained, no change from 2017). Reflecting lower levels of recruitment compared with 2017, employers were less likely to have provided any induction training in the previous 12 months (down 4 percentage points to 62%). Employers were also less likely to have provided health and safety or first aid training (down 3 percentage points to 71%), management training (down 3 percentage points to 32%) and supervisory training (down 3 percentage points to 31%).

Despite reductions across various training measures, the proportion of all employers that were in training equilibrium (i.e. employers with no desire to increase their current training levels) increased to 61% (from 59% in 2017).

Employers invested £42.0bn in training and development over the previous 12 months, a 0.5% decrease in real terms (taking into account inflation) on the 2017 figure of £42.2bn. This was equivalent to a spend of £2,530 per person trained and £1,530 per employee (2% and 5% decreases respectively on 2017).

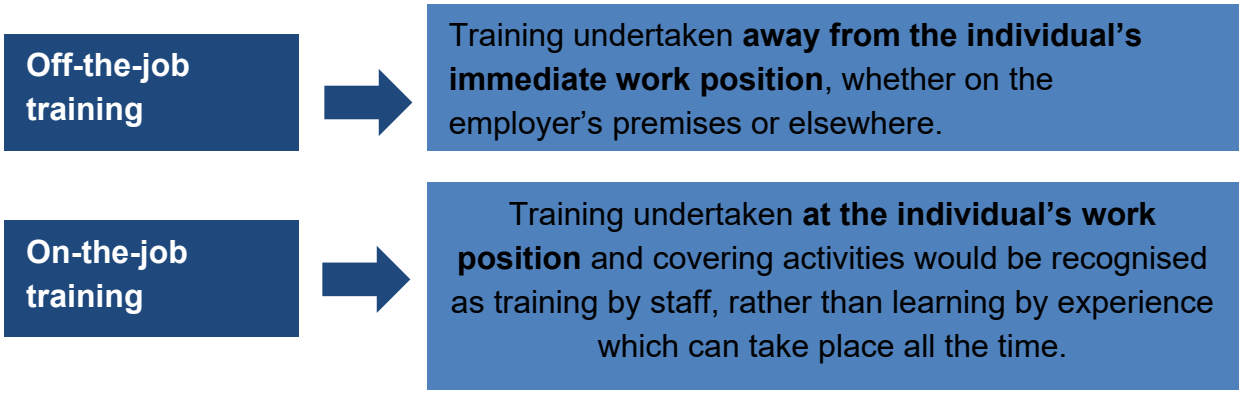
Introduction

Training and workforce development are a vital means of addressing skills shortages and skills gaps, and thus enabling employers to improve productivity. As Chapter 3 discussed, almost two-thirds (64%) of employers with skills gaps had increased their training activity or spend to try to overcome their skills deficiencies. This chapter examines the training landscape in 2019 and how this has changed over time, specifically exploring:

- How many employers had funded or arranged training and development for their employees, and which types of employer were more likely to have done so;
- How many and which employees they provided training for;
- The types of training provided; and
- Employer expenditure on training.[26]

A more extensive exploration of training and workforce development can be found in the separate Training and Workforce Development thematic report.

Within this chapter, training and development provided by employers is discussed in terms of:

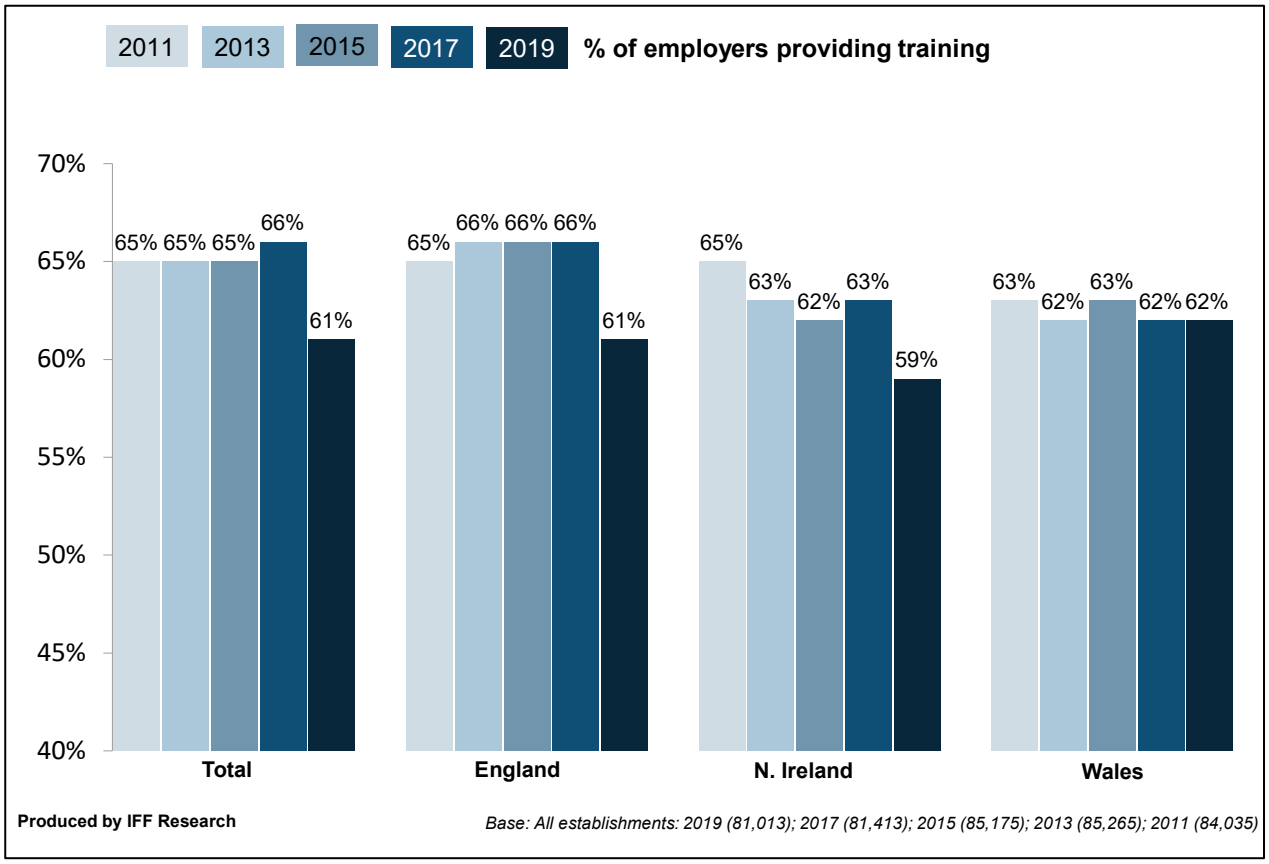


[26] Results for this aspect of the research are derived from the Investment in Training follow-up study with a proportion of the ESS 2019 sample (more information can be found in the accompanying Technical Report for details on the methodology).

Incidence of training and workforce development

Three-fifths (61%) of employers had funded or arranged any training over the previous 12 months for any employees on the payroll of their site. This is lower than the figure of around two-thirds (65%-66%) found in the previous waves of ESS dating back to 2011. Figure 4-1 shows how the proportion of employers that have trained has changed since 2011.

Figure 4-1 Proportion of employers training (2011-2019)



Employers in Northern Ireland were less likely to have provided training than other nations (59%, compared with 61% in England and 62% in Wales). The proportion of employers providing training in Wales has remained relatively consistent in the 2011-2019 period (62%-63%). In contrast, the corresponding decreases in England and Northern Ireland marked a shift from historical trends. England saw the proportion of employers providing training fall by 5 percentage points after remaining stable from 2011 to 2017; similarly the 4 percentage point decrease in Northern Ireland was the largest in the ESS series.

The proportion of employers providing training in the previous 12 months increased with establishment size; less than half (46%) of employers with 2 to 4 employees had done so, compared with three-quarters (75%) of those with 5 to 24 employees, and almost all (92%) of those with 25 or more employees.

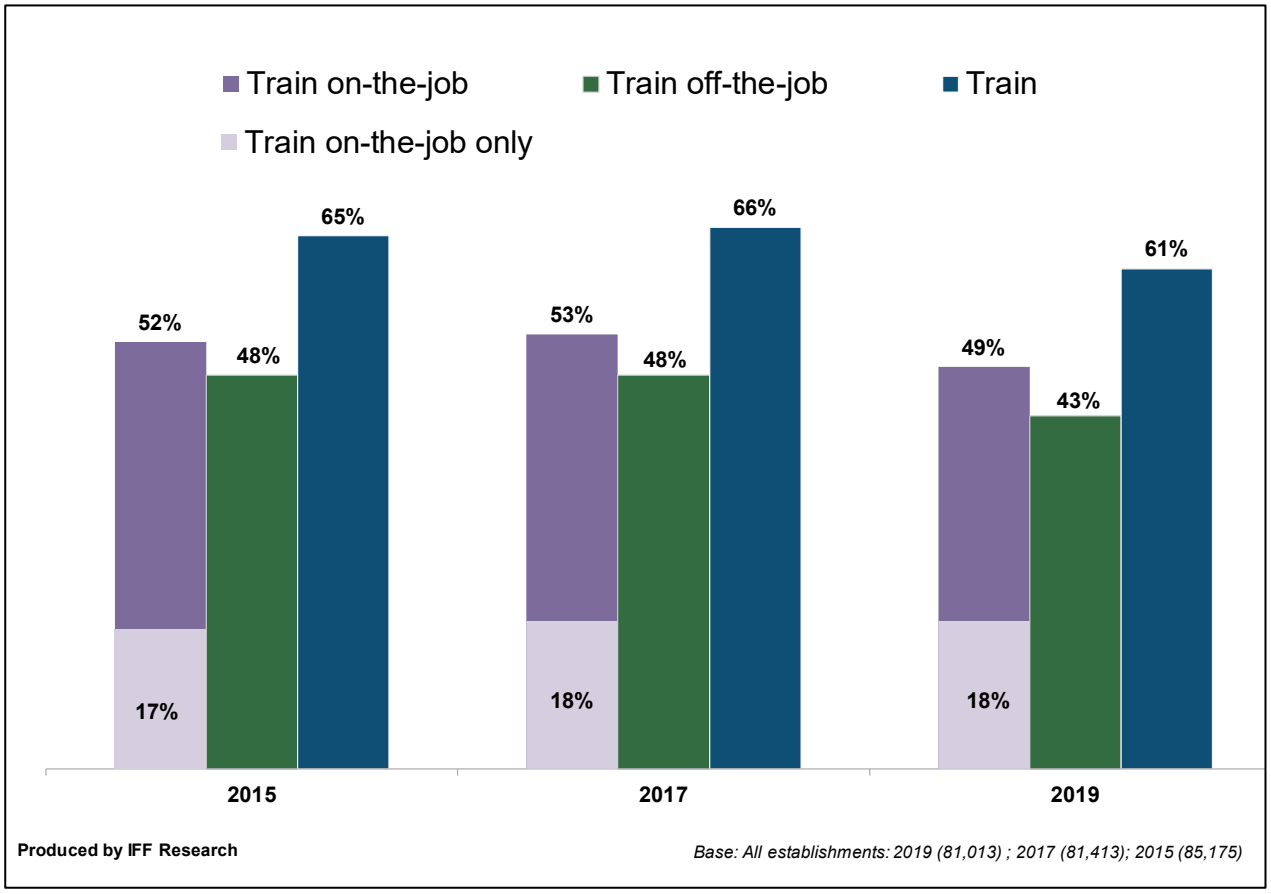
Employers in the Education (89%) and Public Administration (86%) sectors were far more likely than average to have provided training in the last 12 months, reflecting the wider prevalence of training in the public sector (91%, compared with only 58% in the private sector). Training was least common in the Information and Communications and Construction sectors (both 52%). These results are partly driven by establishment size; the Information and Communications and Construction sectors had a particularly high composition of establishments with 2 to 4 employees (70% and 72% respectively), while this size group made up a far smaller proportion of establishments within the Education and Public Administration sectors (both 23%).

Employers that had recruited in the previous 12 months were far more likely to have trained than those who had not (79% vs. 45%). This was also true of those who had skills gaps among their workforce (82% vs 58% without skills gaps).

As Figure 4-2 shows, more than two-fifths (43%) of employers provided off-the-job training while around half (49%) had funded or arranged on-the-job training in the previous 12 months. Both represent falls of between 4 and 5 percentage points compared with 2017. Approaching a fifth (18%) of employers only offered on-the-job training (no change from 2017). The Hotels and Restaurants, the Wholesale and Retail and the Financial Services sectors were more likely to have *only* provided on-the-job training (25%, 22% and 22% respectively, compared with 18% among all employers).

Three in ten employers (31%) had provided both on- and off-the-job training to their staff. The likelihood of providing both types of training increased substantially with size, ranging from almost two-fifths (18%) of employers with 2 to 4 employees to over three-quarters (77%) among those with 100 or more employees.

Figure 4-2 Training provision 2015-2019



Number of staff trained

Employers had trained a total of 16.5m staff over the previous 12 months, a 1.0% increase from the 16.4m figure in 2017. However, due to the corresponding increase in the size of the total workforce from 2017 to 2019 (4%), the proportion of the workforce trained has fallen from 62% in 2017 to 60% in 2019. As Table 4-1 shows, these training levels are the lowest since 2011 (when just 54% of the workforce had been trained in the previous 12 months).

Table 4-1 Number and proportion of staff trained over the last 12 months 2011-2019, by country and establishment size

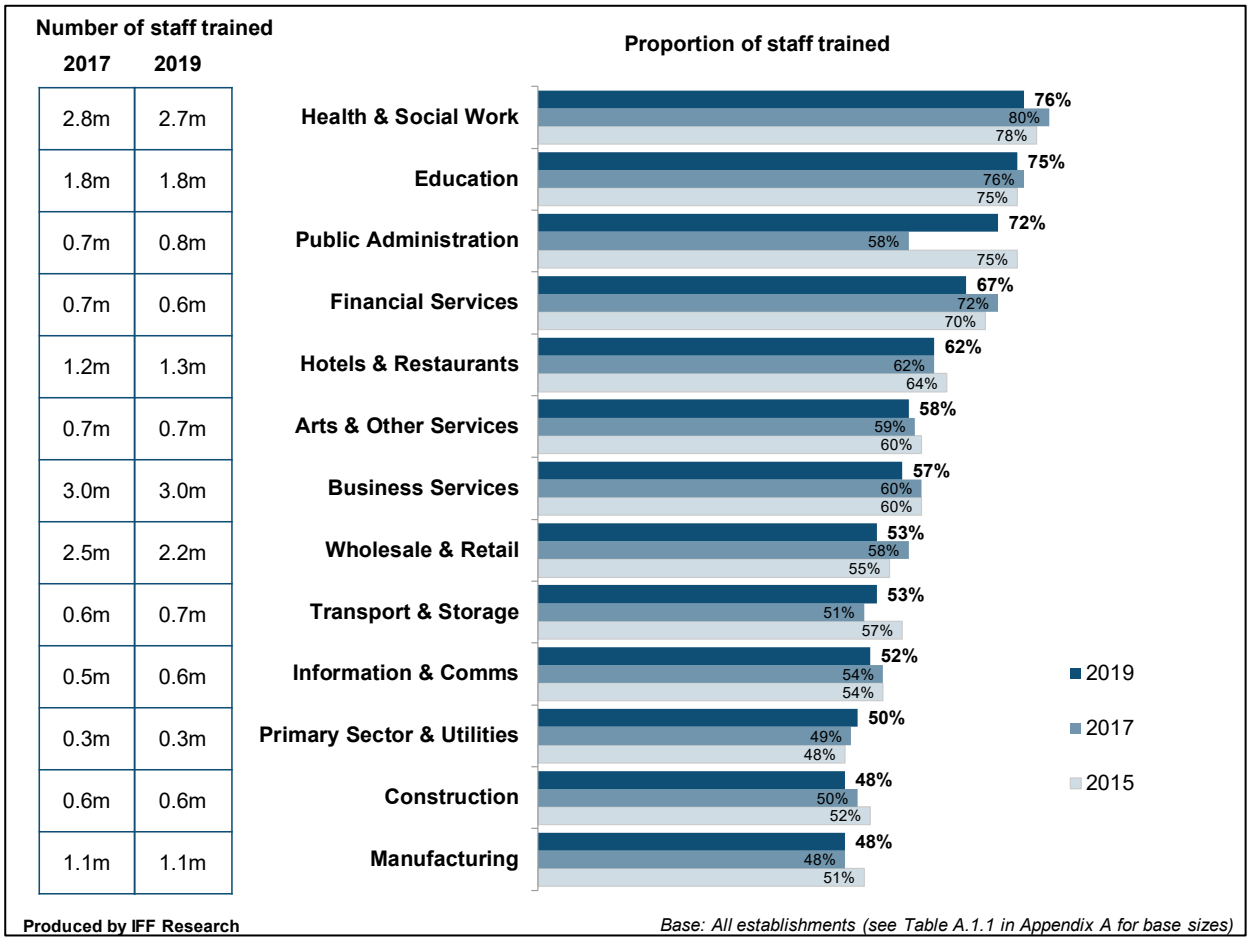
	2011		2013		2015		2017		2019	
	No. trained	% of staff trained	No. trained	% of staff trained	No. trained	% of staff trained	No. trained	% of staff trained	No. trained	% of staff trained
Total	13.4m	54	15.3m	62	15.9m	63	16.4m	62	16.5m	60
Country										
England	12.3m	54	14.1m	62	14.7m	63	15.2m	62	15.2m	60
Northern Ireland	0.4m	56	0.4m	59	0.5m	64	0.4m	60	0.5m	62
Wales	0.7m	56	0.7m	62	0.8m	64	0.7m	58	0.8m	65
Size										
2 to 4	0.9m	40	0.9m	41	0.9m	42	1.0m	42	0.9m	36
5 to 24	3.0m	52	3.2m	54	3.4m	56	3.5m	55	3.5m	54
25 to 49	1.8m	58	1.9m	63	2.1m	65	2.1m	64	2.1m	62
50 to 99	1.8m	59	2.1m	66	2.1m	66	2.2m	65	2.3m	66
100 to 249	2.2m	60	2.5m	69	2.7m	68	2.8m	70	2.8m	65
250+	3.6m	54	4.7m	70	4.8m	70	4.8m	68	4.9m	67

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

The fall in the proportion of staff trained over the previous 12 months was driven by a fall in England, where in 2019 60% of staff were trained, down from 62% in 2017 and the lowest proportion among all nations. In Northern Ireland the proportion of staff trained increased from 60% in 2017 to 62% in 2019, although this was still lower than 2015 levels (64%). There was also a sharp rise in the proportion of staff trained in Wales from 58% in 2017 to 65% (similar to the level found in 2015).

The proportion of staff trained generally increased with the size of the establishment. More than a third (36%) of staff among establishments with 2 to 4 employees had been trained over the previous 12 months, compared with more than two-thirds (67%) among establishments with 250 or more staff. There were notable decreases in the proportion of staff trained compared with 2017 among establishments with 2 to 4 staff (falling 6 percentage points from 2017) and 100 to 249 staff (falling 5 percentage points).

Figure 4-3 Proportion of staff trained by sector, 2015-2019



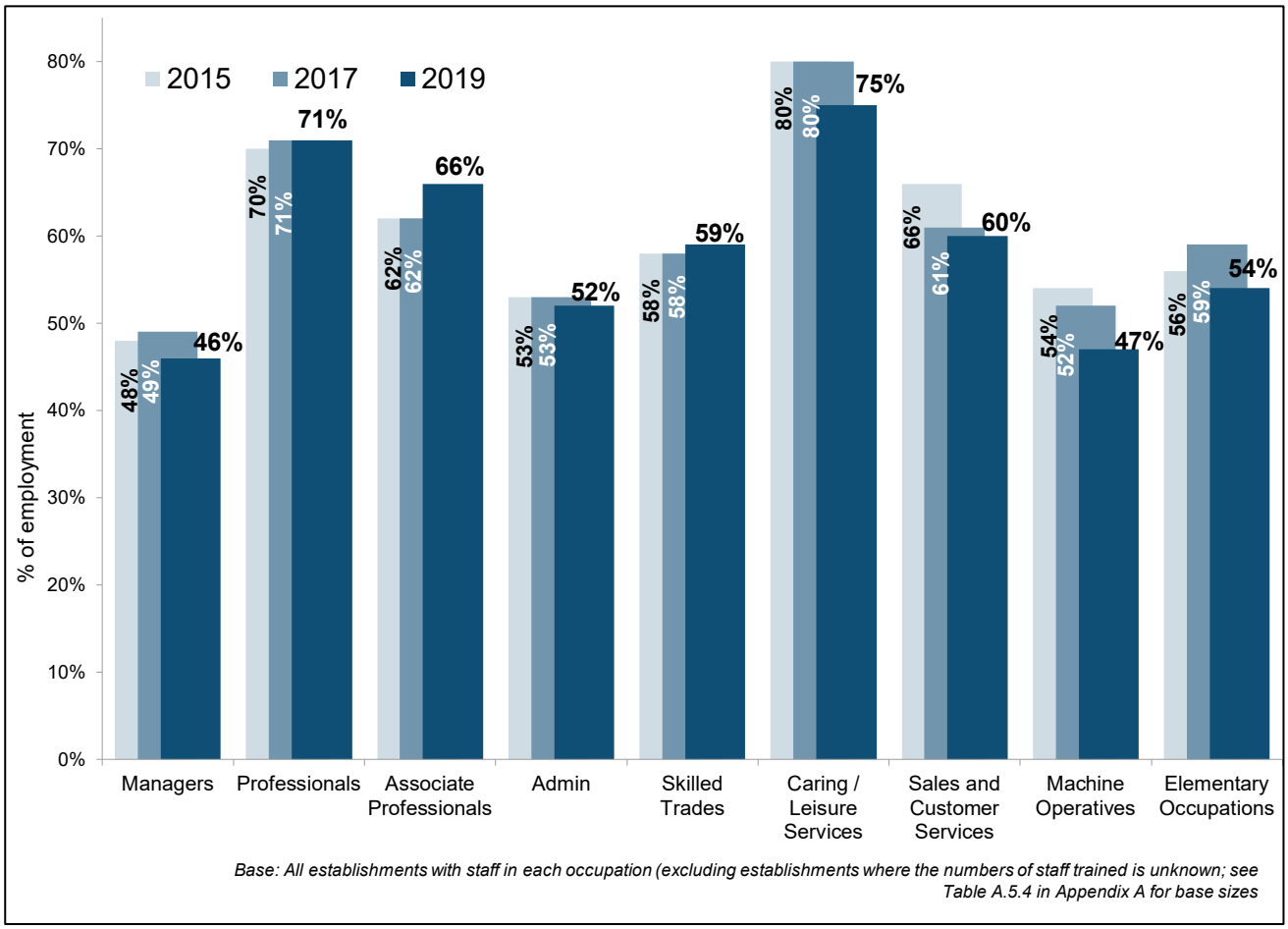
As shown in Figure 4-3, employers in the Health and Social Work and the Education sectors trained the highest proportion of their staff (76% and 75% respectively). Due to the size of these sectors, this also translated to high volumes of employees trained at 2.7m and 1.8m employees respectively. Despite training high volumes of staff overall, employers in the Business Services and Wholesale and Retail sectors trained a relatively low proportion of the workforce (57% and 53% respectively). However, Manufacturing and Construction employers trained the lowest proportion of their staff (each 48% of their respective workforces).

There was a sharp increase in the proportion of staff trained in the Public Administration sector, from 58% in 2017 to 72% in 2019 (returning to similar levels reported in 2015).

Data for the number and proportion of staff trained by sector, from 2013-2019, are provided in Table A.4.3 in Appendix A.

At occupational level, Caring, Leisure and Other Services occupations remained the most likely to have been trained; three-quarters (75%) had received training in the previous 12 months, although this represented a decrease from four-fifths (80%) in 2015 and 2017. There were also proportionately fewer staff compared with 2017 being trained among Elementary occupations (54%, compared to 59% in 2017); Machine Operatives (47% vs. 52%) and Managers (46% vs. 49%). Conversely, there was a rise in the proportion of Associate Professionals that had received training in the previous 12 months (66% vs. 62% in 2017).

Figure 4-4 Proportion of staff trained over the last 12 months by occupation (2015-2019)



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

Training days

Employers had provided 99m training days over the last 12 months, equivalent to 6.0 days per annum per person trained ('per trainee') and 3.6 days per employee. This compares with 105m total training days in 2017, and continues a downward trend from 2015, when 108m training days were reported over the previous 12 months. The number of days per trainee and per employee were also at their lowest levels over the 2011-2019 period, as Table 4-2 shows.

Table 4-2 Total training and development days, and days per person trained and per employee, by country and establishment size (2011-2019)

	2011			2013			2015			2017			2019		
	Training days			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	Total	Per trainee	Per employee
Total	105m	7.8	4.3	103m	6.7	4.2	108m	6.8	4.2	105m	6.4	4.0	99m	6.0	3.6
Country															
England	97m	7.9	4.3	95m	6.7	4.2	100m	6.8	4.3	98m	6.4	4.0	92m	6.0	3.6
Northern Ireland	3m	6.3	3.5	3m	6.3	3.7	3m	5.6	3.6	3m	5.7	3.5	3m	5.4	3.4
Wales	5m	7.5	4.2	6m	7.7	4.8	5m	7.2	4.6	4m	6.2	3.6	4m	5.1	3.3
Size															
2 to 4	9m	10.7	4.3	10m	10.5	4.3	9m	10.1	4.3	9m	8.8	3.7	8m	8.8	3.2
5 to 24	27m	9.0	4.7	26m	8.2	4.5	29m	8.4	4.7	26m	7.5	4.1	24m	6.8	3.7
25 to 49	15m	8.3	4.8	14m	7.2	4.5	16m	7.7	5.0	16m	7.4	4.8	14m	6.6	4.1
50 to 99	15m	7.9	4.7	14m	6.7	4.4	16m	7.5	4.9	15m	6.8	4.4	14m	6.1	4.0
100 to 249	15m	6.6	4.0	16m	6.4	4.4	15m	5.6	3.8	17m	5.8	4.1	16m	5.6	3.6
250+	24m	6.6	3.5	24m	5.0	3.5	23m	4.9	3.4	23m	4.8	3.2	23m	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.4.5 in Appendix A.

Employers in England provided the most training (6.0 days per trainee), but this was lower than in 2017 (6.4 days per trainee). While there was little change from 2017 in Northern Ireland in terms of total training days, the number of training days per trainee decreased slightly from 5.7 days per trainee in 2017 to 5.4 in 2019. In Wales, there was a substantial decrease in training days to 5.1 days per trainee, a day less, on average, than in 2017 (6.2) and two days less than in 2015 (7.2).

Continuing trends seen since 2011, the number of training days per trainee decreased with establishment size, falling from 8.8 days per trainee among establishments with 2 to 4 staff to only 4.7 days among establishments with 250 staff or more. While the amount of training provided by the 2 to 4 and 250 or more employees size groups remained unchanged compared with 2017, all other size groups reported a fall in training days per trainee.

Data by sector for the total number of training and development days, and days per person trained and per employee from 2013 to 2019 can be found in Table A.4.7 in Appendix A.

Types of training provided

As has been the case historically, the most common type of training provided was job specific training, mentioned by 84% of training employers (the same proportion as in 2017). The majority of employers also provided health and safety or first aid training (71%) and basic induction training (60%). However, incidence for both of these types of training had decreased since 2017 (by 3 percentage points and 5 percentage points respectively). Around a third (34%) provided more extensive induction training for new staff (34%, down from 36% in 2017 and 37% in 2015). Results are summarised in Figure 4-5.

The lower incidence of induction training reflects lower recruitment activity compared with 2017 (Chapter 2: Recruitment and skill-shortage vacancies), and among employers that had recruited there was little change in the proportion that had provided any induction training (86% in 2017 and 85% 2019).

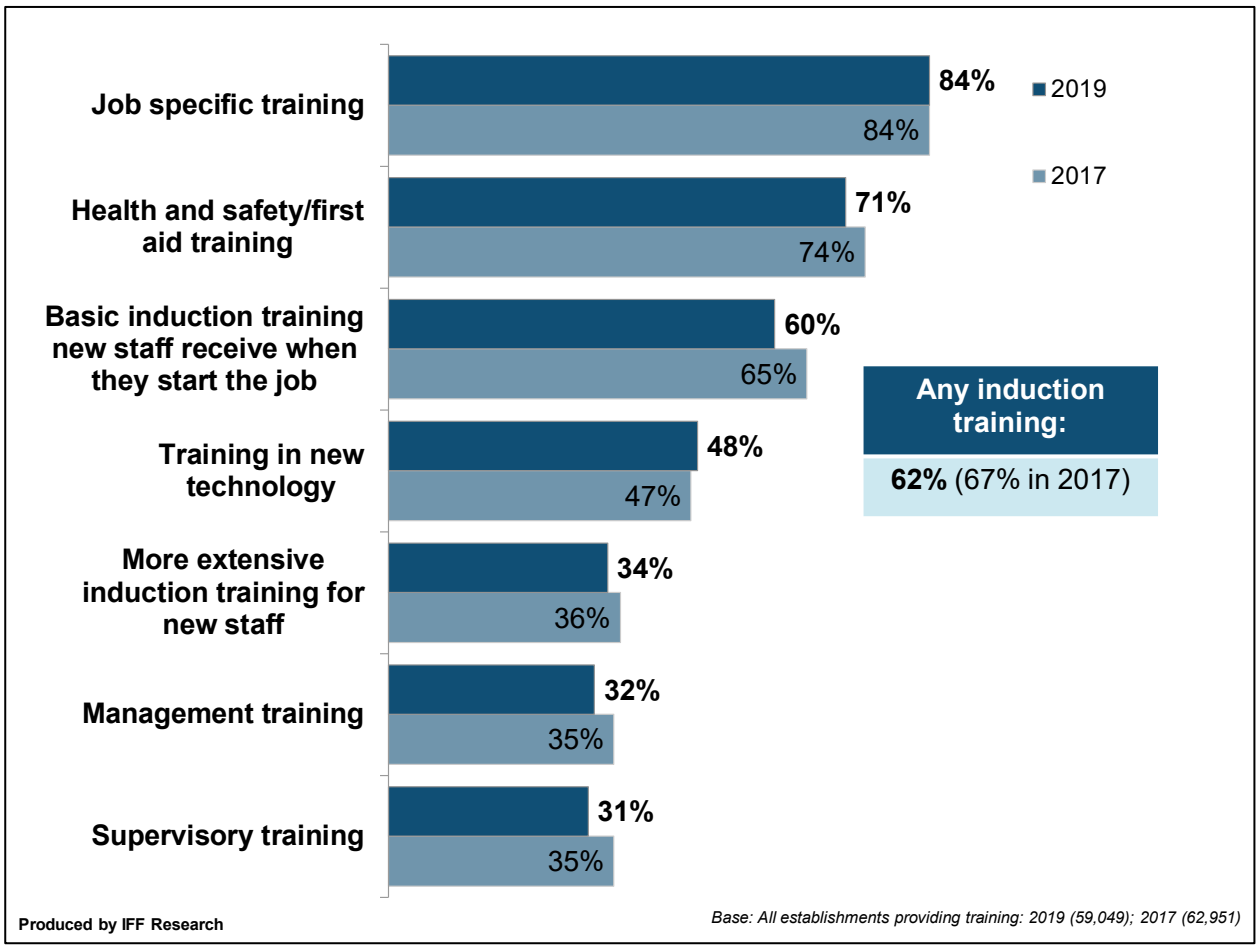
There were also decreases in the provision of supervisory training (31%, down from 35% in 2017) and management training (32%, down from 35% in 2017). While this was true for most sectors, the largest decreases were reported in the Transport and Storage sector for both measures; around a quarter provided management training (24%) and supervisory training (23%); each down 7 percentage points from 2017 (32% and 31% respectively).

All of the reported decreases on specific types of training reflect downward trends since 2015. A full set of results dating back to 2013 can be found in Table A.4.8 in Appendix A.

Larger employers with 25 or more employees were more likely to do each of the types of training shown in Figure 4-5: a majority had done each type of training and almost all provided health and safety training (93%), job specific training (92%) and basic induction training (91%). Employers with 2 to 4 staff reported the largest fall in any type of induction training (41%, down from 49% in 2017) and health and safety training (56%, down from 61% in 2017), reflecting a particularly substantial drop in recruitment among this group.

The Information and Communications sector was by far the most likely sector to train staff in new technology (72%), with the next highest being the Financial Services sector at 57%. Management and supervisory training were most common in Education (53% and 39% respectively), Public Administration (50% and 44%). Health and Social Work (46% and 43%), and Hotels and Restaurants (44% and 48%).

Figure 4-5 Types of training provided over the last 12 months by employers than train (prompted)



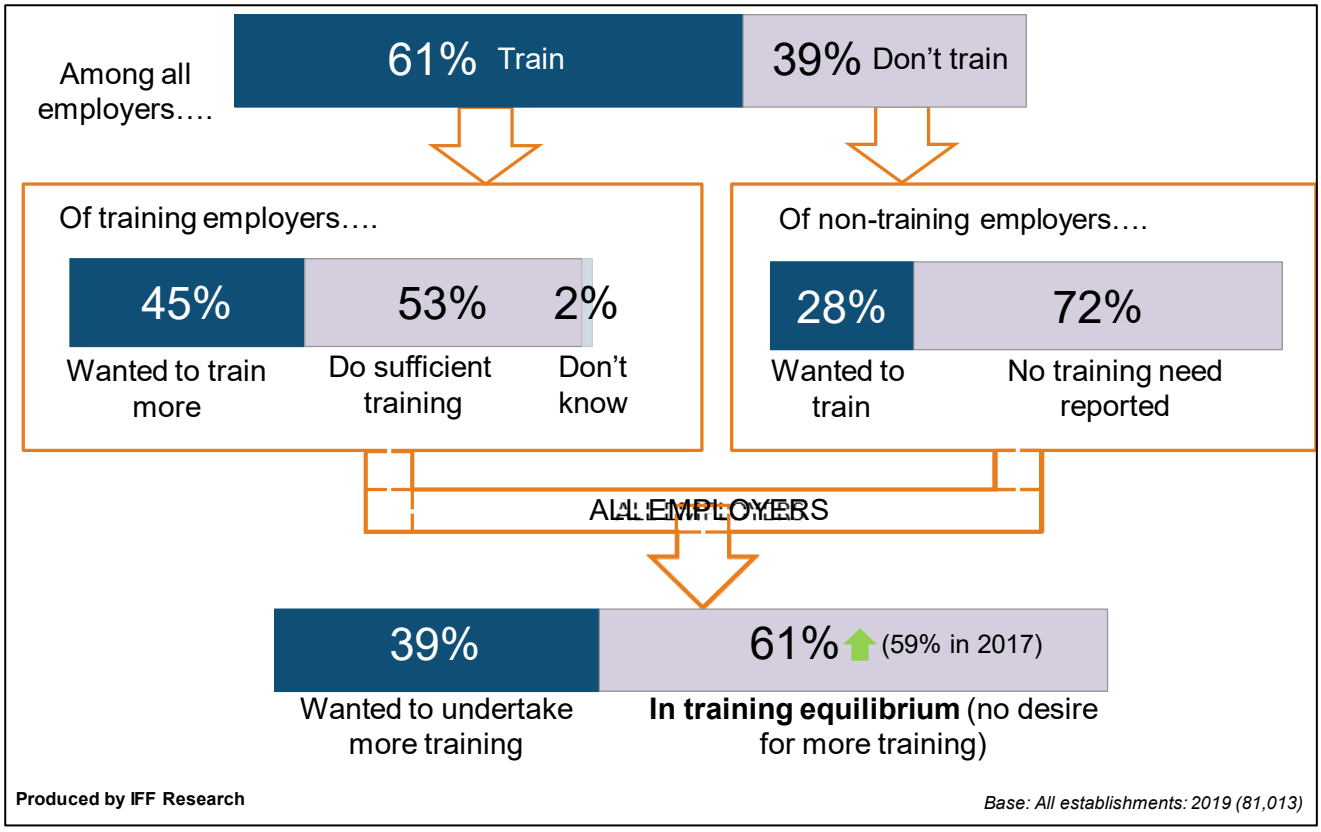
Induction training and health and safety / first aid training is often undertaken because it is a legislative requirement (rather than to develop the skills of the workforce). The Employer Skills Survey series has therefore asked employers what proportion of their training over the previous 12 months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

Overall, 30% of training employers said that *at least half* of all their training was for basic induction or health and safety training, down from 34% reporting this in 2017. Further, 12% said that *all* of their training was one of these two types of training (slightly lower than the 13% in 2017). These falls mark a change from the historical trend, which from 2011-2017 saw health and safety and basic induction training comprising an increasing share of all training provided.

Training equilibrium

Figure 4-6 shows the proportion of employers that were in 'training equilibrium', meaning that they had no desire to undertake more training over the previous 12 months (or in the case of non-training employers, no desire for any training).[27] Despite fewer employers training overall, the proportion of employers in training equilibrium had increased to 61%, up from 59% in 2017 and 58% in 2015. This was driven by an increase in non-training employers showing no desire for training (72%, compared with 69% in 2017). Just over half (53%) of training employers felt their training levels were sufficient, similar to levels reported in 2017.

Figure 4-6 Employers in training equilibrium (2017-2019)



[27] 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.

Two-fifths of all employers (39%) were not in training equilibrium (i.e. they would have liked to undertake more training over the previous 12 months). This desire for more training increased with size; ranging from a third (32%) of employers with 2 to 4 employees, to two-thirds (67%) of employers with 250 or more staff. It was also higher in the Education (59%), Public Administration (51%) and Health and Social Work (51%) sectors.

Investment in training

Employer expenditure on training and development over the previous 12 months was £42.0bn. 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. Overall, employer investment was fairly evenly split between on- and off-the-job training (21.1bn and 20.9bn respectively).

The 2019 training expenditure of £42.0bn represents a 0.5% decrease in real terms on the 2017 figure of £42.2bn. Note, that for figures from earlier years, inflation has been taken into account.[28] While training expenditure has gradually increased in England since 2015 (from £38.9bn in 2015 to £39.2bn in 2019) and remained stable in Northern Ireland (£1.1bn), it has fallen in Wales to £1.7bn (compared with £2.1bn in 2015 and 2017); this is despite the proportion of staff trained in Wales increasing, and is due to a reduction in training days (see Table 4-2).

The largest increase in total training expenditure occurred in the Business Services sector, from £9.4bn in 2017 to £11.4bn in 2019 (an increase of 21%). In contrast, there has been a continued downward trend in total training expenditure in the Education sector; £3.5bn was spent on training over the last 12 months in 2019, compared with £3.7bn in 2017 and £4.2bn in 2015. A similar story was also true for Arts and Other Services; training spend in this sector has fallen to £1.7bn, down from 2.2bn in 2017 and 2.6bn in 2015.

[28] We have adjusted 2017, 2015, 2013 and 2011 training expenditure figures to reflect inflation, so that in effect they are presented in '2019 prices.' The adjustments used were an uplift of 4.3% for the original 2017 data collected, 7.8% for 2015, 9.4% for 2013 and 15.4% for 2011. Source: ONS, *Consumer price inflation tables 2020* (2020), Table 20a

Employers' total investment in training over the previous 12 months was equivalent to around £2,540 per person trained and £1,530 per employee. These figures have decreased by 1% and 5% respectively since 2017 (Table 4-3). However, across the ESS series since 2011 the per employee and per trainee training spends have been relatively stable.

Table 4-3 Total training expenditure and spend per person trained and per employee (2011 to 2019), in 2019 prices

	2015			2017			2019		
	Total	Per trainee	Per employee	Total	Per trainee	Per employee	Total	Per trainee	Per employee
	£	£	£	£	£	£	£	£	£
Total	42.0bn	2.6k	1.7k	42.2bn	2.6k	1.6k	42.0bn	2.5k	1.5k
Country									
England	38.9bn	2.6k	1.7k	39.1bn	2.6k	1.6k	39.2bn	2.6k	1.5k
Northern Ireland	1.0bn	2.1k	1.3k	1.1bn	2.4k	1.5k	1.1bn	2.2k	1.4k
Wales	2.1bn	2.8k	1.8k	2.1bn	2.9k	1.7k	1.7bn	2.1k	1.4k
Size									
2 to 4	5.7bn	6.1k	2.6k	5.9bn	5.7k	2.4k	5.2bn	5.5k	2.0k
5 to 24	12.9bn	3.8k	2.1k	13.3bn	3.8k	2.1k	12.5bn	3.6k	1.9k
25 to 49	5.8bn	2,8k	1.8k	6.4bn	3.1k	2.0k	6.0bn	2.9k	1.8k
50 to 99	5.9bn	2.8k	1.8k	5.0bn	2.3k	1.5k	5.7bn	2.5k	1.7k
100+	11.7bn	1.6k	1.1k	11.6bn	1.5k	1.0k	12.6bn	1.6k	1.1k
Sector									
Primary Sector & Utilities	1.1bn	3.8k	1.8k	1.0bn	3.0k	1.5k	0.9bn	2.5k	1.3k
Manufacturing	2.6bn	2.4k	1.2k	2.8bn	2.6k	1.3k	2.7bn	2.5k	1.2k
Construction	2.2bn	4.1k	2.1k	2.6bn	4.8k	2.4k	2.6bn	4.4k	2.1k
Wholesale & Retail	4.7bn	2.1k	1.1k	6.1bn	2.5k	1.5k	4.6bn	2.1k	1.1k
Hotels & Restaurants	2.9bn	2.6k	1.7k	3.0bn	2.5k	1.5k	2.7bn	2.1k	1.3k
Transport & Storage	1.3bn	2.1k	1.2k	1.4bn	2.3k	1.2k	1.4bn	2.1k	1.1k
Information & Comms	1.8bn	3.4k	1.8k	1.4bn	2.7k	1.5k	1.6bn	2.8k	1.5k
Financial Services	1.5bn	2.4k	1.7k	1.3bn	1.9k	1.4k	1.3bn	2.2k	1.5k
Business Services	9.3bn	3.5k	2.1k	9.4bn	3.2k	1.9k	11.4bn	3.8k	2.2k
Public Admin	1.8bn	2.0k	1.5k	1.9bn	2.9k	1.7k	1.7bn	2.1k	1.5k
Education	4.2bn	2.3k	1.7k	3.7bn	2.0k	1.5k	3.5bn	1.9k	1.4k

Health & Social Work	5.8bn	2.2k	1.7k	5.3bn	1.9k	1.5k	5.9bn	2.1k	1.6k
Arts & Other Services	2.6bn	3.7k	2.2k	2.2bn	3.0k	1.8k	1.7bn	2.4k	1.4k

Base: Establishments completing the Investment in Training study excluding Scotland (UK 2011: 10,345; 2013: 11,093; 2015: 11,549; 2017: 11,059; 2019: 10,255). Spends per trainee and employee to the nearest £100. See Table A.4.12 in Appendix A for base sizes

Training spend per person trained was highest in England (£2,570) compared with Northern Ireland (£2,190) and Wales (£2,130). England also had the highest spend per employee (£1,540 in England compared to £1,370 in Northern Ireland and £1,380 in Wales).

5. Conclusions

The UK economy has seen sustained economic growth after emerging from the recession of the late 2000s, and this has continued since the last wave of Employer Skills Survey (ESS) in 2017. ONS data shows that at the second quarter of 2019, when ESS 2019 fieldwork began, job creation was at its highest level since records began (an employment rate of 76.1%).[29] Despite this, UK productivity is still behind most other G7 countries. In the second quarter of 2019 output per hour fell by 0.5%, the largest quarterly fall in productivity in five years.[30] This underlies why developing a more proficient, skilled workforce is such a high priority for government. The Employer Skills Survey is a key tool to measure the incidence, nature and impact of skills issues facing employers, and how these skills needs are changing over time.

Despite positive trends in job creation, the economic landscape remained uncertain at the time survey fieldwork was conducted (June and December 2019) as the UK negotiated an EU withdrawal deal. The 2019 survey serves as a watershed in the ESS series, and the last undertaken before the UK's official withdrawal from the EU in January 2020.

The level of recruitment activity is an indicator of the buoyancy of the labour market, and the extent to which vacancies are hard to fill are a signifier of its relative tightness. ESS 2019 found fewer employers had vacancies than in 2017, and fewer vacancies were reported, but the number of hard-to-fill vacancies, the number of vacancies hard to fill for skills-related reasons and the proportion of all vacancies where skill shortages were encountered were all slightly higher than in 2017. This suggests skills problems when recruiting are persisting, indeed, given the lower vacancy numbers, becoming more 'concentrated.'

These skills challenges when recruiting have remained high in certain sectors, particularly Construction, and have become more acute in others (notably Manufacturing). In both, over a third of current vacancies were proving hard-to-fill due to skill-related issues.

Skill-shortage vacancies have also proven a persistent challenge for certain occupations. In line with previous iterations of ESS, skill shortages were most likely to be encountered when recruiting for Skilled Trades occupations, and skill-shortages in this occupation have more acute since 2017, as it also had for Professional, Caring and Leisure Services, Manager and Elementary occupations.

[29] ONS, *Labour Market Overview: June 2019 (*2019)
[30] ONS, *Labour productivity, UK: April to June 2019*, (2019)

The impact of skill-shortage vacancies on employers can be significant. The most commonly felt impact was increased workloads, although impacts with direct financial implications for establishments, such as a loss of business or order to competitors, were also common.

The internal skills challenge (i.e. skills gaps within the existing workforce) is another vital aspect of the overall skills picture that ESS considers. From 2011-2017 there was a downward trend in the proportion of the workforce lacking full proficiency in their job role. ESS 2019 saw a reversal of this trend, with a slight increase in the proportion of the workforce with skill gaps compared with 2017. This increase was driven by results among employers in England (skills gap density fell in Northern Ireland and Wales).

Skills gaps within the workforce affect some sectors more than others and remain most common in the Hotels and Restaurants and Manufacturing sectors. However, from 2017 to 2019, there was a large increase in the proportion of the workforce considered to have a skills gap in the Public Administration sector, and a large decrease in Financial Services.

The consequences of these skills gaps have remained relatively consistent in 2019 as in previous years, with the most common impact being an increase in workload for other staff. Perhaps more concerningly, skills gaps remain a factor hindering the introduction of new working practices, products or services.

Training activity provide a means of addressing skills deficiencies. Following a period from 2013-2017 when key ESS training measures remained very stable, 2019 marks a potentially significant turning point with decreases across several key measures including the proportion of employers training, the total training days provided, and employer investment in training (overall but also per employee and per person trained).

Although this reduced training is partly explained by lower levels of recruitment, results also suggest that employers were being less proactive and fewer employers with skills gaps in their workforce had taken any steps to address the lack of proficiency compared with 2017. Further, despite fewer employers training than in 2017, more were content with the amount of training undertaken over the last 12 months.

ESS provides a snapshot of the skills situation employers were facing in the second half of 2019. The outbreak of the Covid-19 pandemic in 2020 has clearly provided a significant shock to the economy and is likely to have lasting and significant effects on employers, and their recruitment and skills needs. While this makes extrapolating ESS 2019 results to the post-Covid-19 situation problematic, the ESS 2019 results provide an important baseline to assess the post-Covid economy and labour market as we enter a new decade.

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 (2015 – 2019)

	2015	2017	2019
Total	85,175	81,413	81,013
Country			
England	75,129	71,527	70,217
Northern Ireland	4,019	3,973	4,023
Wales	6,027	5,913	6,773
Size			
2 to 4	19,263	16,137	20,183
5 to 24	46,565	43,798	40,611
25 to 49	10,728	11,500	10,795
50 to 99	5,346	5,974	5,377
100 to 249	2,440	3,018	3,122
250+	833	986	925
Sector			
Primary Sector & Utilities	4,248	4,460	2,952
Manufacturing	6,450	6,169	6,234
Construction	6,895	6,422	5,249
Wholesale & Retail	15,188	13,581	17,503
Hotels & Restaurants	8,338	7,898	7,594
Transport & Storage	4,357	3,746	2,330
Information & Communications	3,996	3,721	2,511
Financial Services	2,322	2,471	1,577
Business Services	12,380	12,875	15,490
Public Administration	845	1,004	840
Education	5,177	5,146	5,012
Health & Social Work	7,962	7,379	8,092
Arts & Other Services	6,927	6,541	5,629

Source: Employer Skills Survey (2019)

Table A.1.2 Unweighted base sizes (i.e. number of completed interviews) for establishments in England, by size and sector (2015 - 2019)

	2015	2017	2019
England total	75,129	71,527	70,217
Size			
2 to 4	16,346	13,371	17,286
5 to 24	41,013	38,447	35,102
25 to 49	9,860	10,571	9,510
50 to 99	4,882	5,461	4,710
100 to 249	2,263	2,757	2,781
250+	765	920	828
Sector			
Primary Sector & Utilities	3,649	3,761	2,394
Manufacturing	5,703	5,498	5,391
Construction	6,334	5,622	4,531
Wholesale & Retail	13,126	11,841	15,131
Hotels & Restaurants	7,274	6,917	6,486
Transport & Storage	3,797	3,317	2,047
Information & Communications	3,741	3,436	2,305
Financial Services	2,121	2,195	1,387
Business Services	11,158	11,582	14,040
Public Administration	721	859	683
Education	4,549	4,516	4,190
Health & Social Work	6,963	6,315	6,828
Arts & Other Services	5,993	5,668	4,804

Source: Employer Skills Survey (2019)

Table A.1.3 Unweighted base sizes (i.e. number of completed interviews) for establishments in Northern Ireland, by size and sector (2015 - 2019)

	2015	2017	2019
Northern Ireland total	4,019	3,973	4,023
Size			
2 to 4	1,168	1,097	984
5 to 24	2,236	2,182	2,102
25 to 49	321	368	485
50 to 99	191	220	285
100 to 249	72	88	124
250+	31	18	43
Sector			
Primary Sector & Utilities	122	188	194
Manufacturing	330	252	377
Construction	246	319	317
Wholesale & Retail	859	782	930
Hotels & Restaurants	415	384	311
Transport & Storage	201	155	112
Information & Communications	88	117	65
Financial Services	93	122	81
Business Services	507	499	462
Public Administration	49	54	48
Education	267	255	359
Health & Social Work	382	461	439
Arts & Other Services	460	385	328

Source: Employer Skills Survey (2019)

Table A.1.4 Unweighted base sizes (i.e. number of completed interviews) for establishments in Wales, by size and sector (2015 - 2019)

	2015	2017	2019
Wales total	6,027	5,913	6,773
Size			
2 to 4	1,749	1,669	1,193
5 to 24	3,316	3,169	3,407
25 to 49	547	561	800
50 to 99	273	293	382
100 to 249	105	173	217
250+	37	48	54
Sector			
Primary Sector & Utilities	477	511	364
Manufacturing	417	419	466
Construction	405	481	401
Wholesale & Retail	1,203	958	1,442
Hotels & Restaurants	649	597	797
Transport & Storage	359	274	171
Information & Communications	167	168	141
Financial Services	108	154	109
Business Services	715	794	988
Public Administration	75	91	109
Education	361	375	463
Health & Social Work	617	603	825
Arts & Other Services	474	488	497

Source: Employer Skills Survey (2019)

Table A.1.5 Size within sector population profile of establishments

Row percentages		Size						
	%	2 to 4	5 to 9	10 to 24	25 to 49	50 to 99	100 to 249	250+
Sector								
Primary Sector & Utilities	%	77	14	6	2	1	1	*
Manufacturing	%	44	21	17	8	5	3	1
Construction	%	72	16	8	2	1	*	*
Wholesale & Retail	%	47	27	18	5	2	1	*
Hotels & Restaurants	%	39	27	23	8	2	1	*
Transport & Storage	%	53	20	13	6	4	3	1
Information & Communication	%	70	13	10	4	2	1	1
Financial Services	%	47	25	17	5	3	2	2
Business Services	%	65	18	11	3	2	1	1
Public Administration	%	23	16	22	14	10	8	7
Education	%	23	15	19	19	15	8	2
Health & Social Work	%	29	22	27	12	6	2	1
Arts & Other Services	%	59	24	11	3	2	1	*

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

Table A.1.6 Classification of establishments, by country, size and sector

Row percentages	Unwtd. Base:		Private sector	Third sector	Public sector	Single site	Multi-site
Total	81,013	%	88	8	4	71	29
Country							
England	70,217	%	88	8	3	71	29
Northern Ireland	4,023	%	81	12	5	74	26
Wales	6,773	%	86	8	6	70	30
Size							
2 to 4	20,183	%	91	7	1	81	19
5 to 24	40,611	%	86	9	4	63	37
24 to 49	10,795	%	77	9	13	47	53
50 to 99	5,377	%	71	10	18	41	59
100 to 249	3,122	%	70	12	17	35	65
250+	925	%	69	9	20	28	72
Sector							
Primary Sector & Utilities	2,952	%	98	1	1	88	12
Manufacturing	6,234	%	99	*	*	80	20
Construction	5,249	%	100	*	*	91	9
Wholesale & Retail	17,503	%	95	4	*	57	43
Hotels & Restaurants	7,594	%	93	6	*	64	36
Transport & Storage	2,330	%	97	2	1	69	31
Information & Communications	2,511	%	96	3	*	85	15
Financial Services	1,577	%	94	4	*	68	32
Business Services	15,490	%	95	3	1	74	26
Public Administration	840	%	10	4	83	47	53
Education	5,012	%	31	25	42	68	32
Health & Social Work	8,092	%	43	42	12	50	50
Arts & Other Services	5,629	%	63	29	6	72	28

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

Source: Employer Skills Survey (2019)

Chapter 2: Recruitment and SSVs

Table A.2.1 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
Total	81,013	17	877,000	3.2	2.7
Country					
England	70,217	17	812,000	3.2	2.7
Northern Ireland	4023	14	24,000	3.1	2.8
Wales	6773	15	41,000	3.2	2.4
Size					
2 to 4	20,183	7	89,000	3.5	1.4
5 to 24	40,611	21	234,000	3.6	1.7
25 to 49	10,795	44	117,000	3.5	2.6
50 to 99	5377	56	107,000	3.1	3.7
100 to 249	3122	67	134,000	3.1	6.2
250+	925	76	195,000	2.7	19.7
Sector					
Primary Sector & Utilities	2,952	7	18,000	2.6	2.1
Manufacturing	6,234	17	51,000	2.3	3.1
Construction	5,249	10	30,000	2.4	1.8
Wholesale & Retail	17,503	16	110,000	2.6	2.0
Hotels & Restaurants	7,594	25	104,000	4.9	2.4
Transport & Storage	2,330	17	39,000	3.0	3.6
Information & Communications	2,511	14	41,000	3.8	2.8
Financial Services	1,577	16	27,000	3.0	3.2
Business Services	15,490	15	180,000	3.4	2.6
Public Administration	840	34	55,000	4.8	9.6
Education	5,012	27	39,000	1.6	2.4
Health & Social Work	8,092	30	145,000	4.0	3.6
Arts & Other Services	5,629	15	37,000	2.9	1.8

Base: All establishments

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

Table A.2.2 Incidence, number and density of vacancies by occupation (2017-2019)

	% 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*	*%*
2017	*23,287*			
Managers	5	28,000	78,105	0.6
Professionals	14	123,000	18,173	3.7
Associate professionals	19	139,000	13,987	7.6
Administrative / clerical staff	14	74,000	50,416	2.1
Skilled trades occupations	16	90,000	20,805	5.0
Caring, leisure and other services	14	116,000	13,085	4.9
Sales and customer services	15	113,000	23,721	3.2
Machine operatives	7	57,000	13,619	2.7
Elementary staff	17	144,000	28,285	4.1
2019	*20,775*			
Managers	6	24,000	77,494	0.5
Professionals	15	123,000	17,819	3.4
Associate professionals	18	132,000	13,052	7.2
Administrative / clerical staff	14	76,000	48,948	2.2
Skilled trades occupations	17	85,000	21,410	4.2
Caring, leisure and other services	14	116,000	12,802	4.7
Sales and customer services	13	88,000	23,959	2.6
Machine operatives	8	66,000	13,265	2.8
Elementary staff	18	127,000	26,003	3.6

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

		% of establishments with a skill-shortage vacancy	Number of skill-shortage vacancies	% of vacancies which are SSVs	
	Unwtd. base	*%*	*Rounded to nearest 1,000*	*Unwtd. base*	*%*
Total	81,013	5	214,000	20,775	24
Country					
England	70,217	6	199,000	18,380	25
Northern Ireland	4,023	4	5,000	892	22
Wales	6,773	5	10,000	1,503	24
Size					
2 to 4	20,183	3	30,000	1,473	34
5 to 24	40,611	7	67,000	8,878	29
25 to 49	10,795	14	28,000	4,667	24
50 to 99	5377	17	24,000	2,947	22
100 to 249	3122	21	27,000	2,100	20
250+	925	25	39,000	710	20
Sector					
Primary Sector & Utilities	2,952	3	6,000	382	31
Manufacturing	6,234	8	18,000	1,477	36
Construction	5,249	4	11,000	824	36
Wholesale & Retail	17,503	5	25,000	3,584	22
Hotels & Restaurants	7,594	7	22,000	2,843	21
Transport & Storage	2,330	6	10,000	581	26
Information & Communications	2,511	5	9,000	609	23
Financial Services	1,577	5	4,000	346	13
Business Services	15,490	5	49,000	3,574	27
Public Administration	840	7	7,000	285	13
Education	5,012	7	9,000	1,727	23
Health & Social Work	8,092	9	36,000	3,304	25
Arts & Other Services	5,629	5	9,000	1,239	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.2.4 Density of skill-shortage vacancies, by country, size and sector (2013 - 2019)

	% of vacancies which are SSVs							
	2013		2015		2017		2019	
	Unwtd. base	*%*	*Unwtd. base*	*%*	*Unwtd. base*	*%*	*Unwtd. base*	*%*
Total	17,460	22	22,687	22	23,287	22	20,775	24
Country								
England	15,894	22	20,697	23	21,033	22	18,380	25
Northern Ireland	550	19	713	14	855	21	892	22
Wales	1,016	20	1,277	24	1,399	27	1503	24
Size								
2 to 4	1,342	31	1,764	28	1,493	31	1,473	34
5 to 24	8,335	26	11,218	26	10,782	26	8,878	29
25 to 49	3,330	21	4,598	21	5,043	22	4,667	24
50 to 99	2,210	19	2,897	20	3,210	19	2,947	22
100 to 249	1,561	18	1,604	19	2,010	17	2,100	20
250+	682	14	606	18	749	16	710	20
Sector								
Primary Sector & Utilities	329	24	405	28	527	36	382	31
Manufacturing	1,247	30	1,499	30	1,685	29	1,477	36
Construction	639	22	1,092	34	1,201	36	824	36
Wholesale & Retail	2,754	18	3,526	20	3,620	19	3,584	22
Hotels & Restaurants	2,265	19	3,188	18	3,122	17	2,843	21
Transport & Storage	504	25	900	37	892	29	581	26
Information & Communications	626	25	965	24	937	28	609	23
Financial Services	368	11	433	21	503	17	346	13
Business Services	2,909	28	3,633	26	3,676	24	3,574	27
Public Administration	249	23	243	9	303	14	285	13
Education	1,905	12	1,921	15	1,970	22	1,727	23
Health & Social Work	2,176	22	2,920	21	3,102	21	3,304	25
Arts & Other Services	1,489	24	1,962	21	1,749	26	1,239	25

Base: All establishments with vacancies

Table A.2.5 Skills lacking among applicants, overall and by country (prompted)

	Total	England	Northern Ireland	Wales
Unweighted base	*6,529*	*5,785*	*246*	*498*
	%	*%*	*%*	*%*
Technical and practical skills				
Specialist skills or knowledge needed to perform the role	63	63	69	61
Solving complex problems requiring a solution specific to the situation	39	39	52	33
Knowledge of products and services offered by your organisation	38	37	46	36
Knowledge of how your organisation works	32	31	42	30
Reading and understanding instructions, guidelines, manuals or reports	31	30	44	30
Writing instructions, guidelines, manuals or reports	26	25	37	30
More complex numerical or statistical skills and understanding	24	23	40	19
Basic numerical skills and understanding	23	23	40	20
Adapting to new equipment or materials	21	21	40	20
Computer literacy / basic IT skills	21	20	33	24
Manual dexterity	18	18	36	16
Advanced or specialist IT skills	18	17	35	12
Communicating in a foreign language	17	17	34	6
Oral Welsh language skills	1	0	0	19
Written Welsh language skills	1	0	0	17
None of the above	8	8	6	7
People and personal skills				
Ability to manage own time and prioritise own tasks	45	45	55	42
Team working	34	33	49	40
Customer handling skills	34	33	49	30
Managing their own feelings, or handling the feelings of others	33	33	45	32
Managing or motivating other staff	31	31	44	27
Persuading or influencing others	27	26	40	23
Instructing, teaching or training people	22	21	37	29
Sales skills	22	22	37	24
Setting objectives for others & planning human, financial & other resources	21	21	37	16
Making speeches or presentations	15	14	36	18
None of the above	24	24	17	24

Base: All establishments with skill-shortage vacancies – up to two occupations followed up
Percentages are based on all skill-shortage vacancies, rather than all establishments with skill-shortage vacancies; proportions therefore show the percentage of skill-shortage vacancies within each occupation caused by lack of each skill

Table A.2.6 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	*6,529*	*289*	*1,222*	*1,022*	*455*	*1,607*	*1,018*	*409*	*558*	*749*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Specialist skills or knowledge needed to perform the role	63	64	74	63	50	72	62	52	59	46
Solving complex problems requiring a solution specific to the situation	39	44	40	43	44	42	37	38	29	36
Knowledge of products and services offered by your organisation and organisations like yours	38	41	29	46	43	43	39	54	26	30
Knowledge of how your organisation works	32	41	28	34	36	26	38	40	27	33
Reading and understanding instructions, guidelines, manuals or reports	31	27	13	22	29	29	40	31	53	45
Writing instructions, guidelines, manuals or reports	26	25	16	23	25	22	38	18	42	25
More complex numerical or statistical skills and understanding	24	26	23	28	38	25	25	23	15	15
Basic numerical skills and understanding	23	19	9	17	29	25	33	26	36	26
Adapting to new equipment or materials	21	17	10	20	13	28	21	23	37	20
Computer literacy / basic IT skills	21	24	12	21	28	16	28	27	18	24
Manual dexterity	18	6	6	12	8	36	15	14	23	24
Advanced or specialist IT skills	18	21	25	26	32	14	15	15	4	8
Communicating in a foreign language	17	9	21	11	8	16	20	10	21	20
None of the above	8	5	8	6	4	6	10	8	5	13

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

Percentages are based on all skill-shortage vacancies, rather than all establishments with skill-shortage vacancies; proportions therefore show the percentage of skill-shortage vacancies within each occupation caused by lack of each skill. '' 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.2.7 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	*6,529*	*289*	*1,222*	*1,022*	*455*	*1,607*	*1,018*	*409*	*558*	*749*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Ability to manage own time and prioritise own tasks	45	38	27	39	42	48	57	57	41	61
Team working	34	32	18	30	28	34	45	36	43	43
Customer handling skills	34	40	20	33	40	28	44	58	28	41
Managing their own feelings, or handling the feelings of others	33	37	23	30	31	32	43	41	35	37
Managing or motivating other staff	31	49	26	26	29	33	33	32	29	40
Persuading or influencing others	27	43	19	35	25	23	30	45	16	27
Instructing, teaching or training people	22	33	17	22	18	22	26	24	16	29
Sales skills	22	27	16	33	23	13	21	54	8	33
Setting objectives for others and planning human, financial and other resources	21	39	21	21	22	22	26	20	13	18
Making speeches or presentations	15	14	21	20	13	10	16	18	6	9
None of the above	24	19	39	23	21	26	17	12	23	14

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

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

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

Table A.2.8 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	*6,529*	*149*	*660*	*339*	*955*	*854*	*199*	*218*	*96*	*1,231*	*61*	*469*	*962*	*336*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Specialist skills or knowledge	63	75	61	71	57	55	62	72	76	66	47	67	65	61
Solving complex problems	39	48	33	48	42	34	38	53	29	45	56	29	31	32
Knowledge of products & services offered	38	28	43	44	46	41	31	49	51	34	33	29	31	40
Knowledge of how organisation works	32	28	24	29	34	37	38	30	23	25	40	35	37	34
Reading/understanding instructions, reports etc.	31	31	37	34	32	36	48	16	16	28	33	25	27	28
Writing instructions, reports, etc	26	29	31	25	23	27	38	19	12	21	37	25	28	22
Complex numerical or statistical skills	24	21	21	30	26	19	25	34	23	25	37	25	17	21
Basic numerical skills	23	35	24	26	27	28	33	14	13	19	15	19	22	31
Adapting to new equipment or materials	21	31	32	30	30	22	28	16	10	15	25	12	14	21
Computer literacy / basic IT skills	21	30	18	17	22	14	26	15	8	20	33	18	26	20
Manual dexterity	18	38	29	33	26	17	21	12	*	15	18	8	10	16
Advanced or specialist IT skills	18	14	14	18	15	7	17	60	27	21	16	15	15	10
Communicating in a foreign language	17	12	26	8	10	21	26	10	3	13	12	13	28	12
None of the above	8	6	4	6	7	13	5	3	6	6	4	12	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.2.9 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	*6,529*	*149*	*660*	*339*	*955*	*854*	*199*	*218*	*96*	*1,231*	*61*	*469*	*962*	*336*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Ability to manage own time and prioritise own tasks	45	53	31	55	53	59	49	34	28	40	49	38	41	51
Team working	34	49	32	36	36	51	32	29	18	24	43	33	33	43
Customer handling skills	34	32	18	38	45	44	42	31	34	32	24	23	27	47
Managing own feelings, or handling feelings of others	33	40	26	32	37	43	40	26	32	28	38	39	30	42
Managing or motivating other staff	31	37	25	30	32	43	34	23	22	34	20	28	26	35
Persuading or influencing others	27	16	19	22	33	35	34	25	25	26	32	20	24	28
Instructing, teaching or training people	22	24	19	23	23	32	19	14	13	22	27	27	19	20
Sales skills	22	11	12	16	34	31	20	26	30	26	19	6	11	37
Setting objectives for others and planning resources	21	17	16	22	22	26	24	22	16	24	13	15	18	23
Making speeches or presentations	15	10	11	14	13	11	19	26	6	16	30	16	12	25
None of the above	24	22	29	21	18	15	22	27	37	23	12	23	35	20

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.2.10a 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	Experience increased operating costs	Lose business or orders to competitors	Delay developing new products or services	Have difficulties meeting quality standards	Have difficulties introducing new working practices	Outsource work	Withdraw from offering certain products or services altogether	Have difficulties introducing technological change	None
Total	*5,951*	%	94	84	49	45	40	39	36	36	33	25	24	6
Country														
England	*5,263*	%	94	84	50	45	41	39	36	36	33	25	24	6
Northern Ireland	*223*	%	93	78	51	41	36	34	31	30	34	29	20	6
Wales	*455*	%	92	84	45	39	41	40	32	34	31	25	25	7
Size														
2 to 4	*516*	%	93	80	50	40	46	42	33	33	36	31	24	6
5 to 24	*2,641*	%	94	85	50	43	44	40	36	37	30	27	23	5
25 to 49	*1,303*	%	93	84	49	51	34	35	38	37	34	21	25	6
50 to 99	*756*	%	94	84	46	50	29	35	38	36	35	17	25	5
100 to 249	*547*	%	94	85	48	55	23	35	39	34	37	17	26	6
250+	*188*	%	95	89	46	58	25	40	36	34	36	12	37	5

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

Table A.2.10b 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	Experience increased operating costs	Lose business or orders to competitors	Delay developing new products or services	Have difficulties meeting quality standards	Have difficulties introducing new working practices	Outsource work	Withdraw from offering certain products or services altogether	Have difficulties introducing technological change
Total	*5,951*	%	94	84	49	45	40	39	36	36	33	25	24
Sector													
Primary Sector & Utilities	*130*	%	89	76	32	43	22	29	26	26	46	14	23
Manufacturing	*606*	%	95	85	54	48	42	42	33	34	37	24	28
Construction	*326*	%	95	82	52	47	51	38	33	34	46	36	23
Wholesale & Retail	*904*	%	94	85	52	41	46	34	34	34	27	23	25
Hotels & Restaurants	*709*	%	94	84	51	50	39	40	49	43	28	33	22
Transport & Storage	*188*	%	92	77	50	56	48	37	39	36	40	24	19
Information & Communications	*203*	%	97	87	54	43	39	64	34	33	41	22	35
Financial Services	*91*	%	92	87	45	30	25	33	27	38	16	15	28
Business Services	*1,164*	%	95	85	53	42	45	42	33	34	34	26	23
Public Administration	*54*	%	94	79	52	44	8	33	39	36	33	22	33
Education	*424*	%	92	85	35	50	25	33	47	40	35	19	21
Health & Social Work	*850*	%	93	82	38	51	27	37	34	37	34	21	25
Arts & Other Services	*302*	%	93	81	55	36	46	38	37	37	18	30	23

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

Table A.2.11 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
Total	*20,775*	314,000	36	2.2	1.0
Country					
England	*18,380*	292,000	36	2.2	1.0
Northern Ireland	*892*	8,000	34	2.1	1.0
Wales	*1,503*	14,000	34	2.0	0.9
Size					
2 to 4	*1,473*	44,000	49	1.3	0.7
5 to 24	*8,878*	98,000	42	1.6	0.7
25 to 49	*4,667*	41,000	35	2.2	0.9
50 to 99	*2,947*	38,000	36	3.3	1.3
100 to 249	*2,100*	40,000	30	4.9	1.9
250+	*710*	53,000	27	13.8	5.6
Sector					
Primary Sector & Utilities	*382*	9,000	50	1.8	1.1
Manufacturing	*1,477*	21,000	42	2.5	1.3
Construction	*824*	14,000	46	1.5	0.8
Wholesale & Retail	*3,584*	35,000	32	1.6	0.6
Hotels & Restaurants	*2,843*	40,000	38	2.0	0.9
Transport & Storage	*581*	16,000	40	3.2	1.5
Information & Communications	*609*	10,000	25	1.9	0.7
Financial Services	*346*	5,000	17	1.8	0.6
Business Services	*3,574*	60,000	33	2.1	0.9
Public Administration	*285*	16,000	29	8.5	2.8
Education	*1,727*	12,000	31	2.0	0.8
Health & Social Work	*3,304*	63,000	44	3.4	1.6
Arts & Other Services	*1,239*	13,000	35	1.5	0.6

Base: All establishments with vacancies.

Chapter 3: The internal skills challenge

Table A.3.1a Incidence, number and density of skills gaps, by size (2013 - 2019)

	2013			2015			2017			2019		
	% of establishments with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff with skills gaps	% of establishments with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff with skills gaps	% of establishments with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff with skills gaps	% of establishments with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff with skills gaps
Total	15	1,275,000	5.2	14	1,263,000	5.0	13	1,145,000	4.3	13	1,245,000	4.5
Size												
2 to 4	7	64,000	2.9	6	58,000	2.6	6	59,000	2.4	5	57,000	2.2
5 to 24	21	284,000	4.8	19	262,000	4.3	19	263,000	4.2	19	281,000	4.3
25 to 49	32	153,000	5.0	30	145,000	4.5	30	154,000	4.7	32	161,000	4.8
50 to 99	35	163,000	5.1	33	144,000	4.5	31	141,000	4.3	35	160,000	4.6
100 to 249	43	200,000	5.4	39	195,000	5.0	33	188,000	4.6	38	209,000	4.8
250+	47	412,000	6.2	43	458,000	6.8	42	339,000	4.8	39	378,000	5.2

Base: All establishments. Percentage of staff with skills gap measure is 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.3.1b Incidence, number and density of skills gaps, by sector (2013-2019)

	2013			2015			2017			2019		
	% of establishments with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff with skills gaps	% of establishments with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff with skills gaps	% of establishments with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff with skills gaps	% of establishments with any skills gaps	Number of staff not fully proficient (skills gaps)	% of staff with skills gaps
Sector												
Primary Sector & utilities	9%	28,000	4.5	8	25,000	4.0	9	30,000	4.6	9	29,000	4.1
Manufacturing	17%	122,000	5.7	19	150,000	6.9	18	124,000	5.6	17	130,000	5.8
Construction	11%	54,000	4.8	10	39,000	3.8	10	42,000	3.9	10	47,000	3.9
Wholesale & Retail	17%	233,000	5.7	16	223,000	5.4	15	210,000	5.0	15	218,000	5.1
Hotels & Restaurants	21%	145,000	8.8	19	127,000	7.2	18	130,000	6.7	19	148,000	6.9
Transport & Storage	14%	35,000	3.0	15	48,000	4.2	13	40,000	3.3	12	51,000	3.9
Information & Communications	13%	51,000	6.1	11	54,000	5.7	9	44,000	4.6	8	44,000	4.0
Financial Services	18%	82,000	8.7	16	33,000	3.6	15	46,000	5.0	16	34,000	3.8
Business Services	13%	208,000	5.0	12	231,000	5.2	10	208,000	4.2	11	250,000	4.7
Public Administration	19%	63,000	4.9	23	83,000	6.9	20	43,000	3.8	21	61,000	5.3
Education	18%	86,000	3.6	19	94,000	3.9	18	68,000	2.8	17	67,000	2.8
Health & Social Work	18%	119,000	3.7	16	112,000	3.3	13	114,000	3.3	16	119,000	3.3
Arts & Other Services	13%	49,000	4.3	12	43,000	3.7	11	48,000	3.9	12	47,000	3.7

Base: All establishments. Percentage of staff with skills gap measure is 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.3.2 Density of skills gaps by sector within nation (2017-2019)

	England		Northern Ireland		Wales	
	2017 %	2019 %	2017 %	2019 %	2017 %	2019 %
All sectors	4.3	4.6	3.8	3.3	4.7	4.0
Sector						
Primary Sector & Utilities	4.9	4.4	3.0	2.4	1.9	1.7
Manufacturing	5.6	5.5	5.1	8.3	5.9	8.3
Construction	3.8	3.9	4.8	3.3	4.4	3.7
Wholesale & Retail	4.9	5.2	5.4	4.5	5.6	3.8
Hotels & Restaurants	6.6	6.9	8.3	6.1	7.3	7.2
Transport & Storage	3.3	4.0	3.3	4.2	1.9	3.2
Information & Communications	4.7	4.1	1.7	3.1	2.5	2.8
Financial Services	4.9	3.9	3.2	0.8	7.7	4.8
Business Services	4.2	4.8	4.0	2.0	3.2	3.6
Public Administration	4.0	5.7	0.6	2.0	2.3	1.9
Education	2.8	2.9	3.8	1.2	3.2	1.7
Health & Social Work	3.2	3.4	1.1	1.2	5.7	3.1
Arts & Other Services	3.9	3.7	2.1	1.8	4.9	4.2

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.3.2a Unweighted base sizes for previous table (Table A.4.2)

	England		Northern Ireland		Wales	
	2017	2019	2017	2019	2017	2019
Total	71,527	70,217	3,937	4,023	5,913	6,773
Sector						
Primary Sector & Utilities	3,761	2,394	188	194	511	364
Manufacturing	5,498	5,391	252	377	419	466
Construction	5,622	4,531	319	317	481	401
Wholesale & Retail	11,841	15,131	782	930	958	1,442
Hotels & Restaurants	6,917	6,486	384	311	597	797
Transport & Storage	3,317	2,047	155	112	274	171
Information & Communications	3,436	2,305	117	65	168	141
Financial Services	2,195	1,387	122	81	154	109
Business Services	11,582	14,040	499	462	794	988
Public Administration	859	683	54	48	91	109
Education	4,516	4,190	255	359	375	463
Health & Social Work	6,315	6,828	461	439	603	825
Arts & Other Services	5,668	4,804	385	328	488	497

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

	Total	England	Northern Ireland	Wales
	%	%	%	%
Managers	2.2%	2.2%	1.5%	1.9%
Professionals	3.0%	3.1%	1.3%	1.5%
Associate professionals	4.3%	4.4%	2.6%	3.2%
Administrative / clerical staff	3.9%	4.0%	2.8%	3.2%
Skilled trades occupations	5.1%	5.1%	4.5%	4.5%
Caring, leisure and other services	3.7%	3.8%	1.6%	3.9%
Sales and customer services	6.4%	6.5%	4.8%	6.3%
Machine operatives	5.2%	5.0%	6.3%	7.0%
Elementary staff	8.0%	8.3%	4.9%	5.9%

Base: All establishments employing each type of occupation (see Table A.3.3a 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.3.3a Unweighted base sizes for previous table (Table A.3.3)

	Total	England	Northern Ireland	Wales
Managers	77,494	67,249	3,836	6,409
Professionals	17,819	15,562	922	1,335
Associate professionals	13,052	11,478	597	977
Administrative / clerical staff	48,948	42,544	2,573	3,831
Skilled trades occupations	21,410	18,535	1,019	1,856
Caring, leisure and other services	12,802	10,831	762	1,209
Sales and customer services	23,959	21,025	1,169	1,765
Machine operatives	13,265	11,476	733	1,056
Elementary staff	26,003	22,357	1,371	2,275

Table A.3.4 Main causes of skills gaps, by sector (unprompted)

	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	*16,169*	*434*	*1,548*	*892*	*3,521*	*2,208*	*413*	*382*	*328*	*2,638*	*173*	*1,090*	*1,614*	*928*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
They are new to the role	67	73	58	59	63	73	63	63	80	74	69	60	68	60
Their training is currently only partially completed	61	57	61	68	58	63	61	47	78	67	75	50	45	60
Staff lack motivation	38	47	38	36	38	46	46	31	32	34	18	33	49	32
They have been on training, but their performance has not improved sufficiently	33	42	37	27	35	41	40	18	34	29	14	31	33	27
Unable to recruit staff with the required skills	32	45	33	33	28	37	38	25	31	25	22	31	45	28
Problems retaining staff	29	37	33	24	21	31	37	31	29	38	18	28	27	22
The introduction of new working practices	29	36	20	18	30	26	31	21	39	26	38	38	46	21
They have not received the appropriate training	28	33	29	26	24	24	25	24	33	31	30	22	33	23
The introduction of new technology	25	33	21	18	28	15	27	32	41	23	25	21	37	15
The development of new products and services	20	22	22	10	22	19	15	21	38	15	30	15	27	13

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

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

Table A.3.5 Main causes of skills gaps, by occupation (unprompted)

	Managers	Professionals	Associate Professionals	Administrative and Clerical	Skilled Trades	Caring, Leisure and Other Services	Sales and Customer Service	Machine Operatives	Elementary Occupations
Unweighted base	*2,567*	*1,379*	*1,312*	*3,432*	*2,545*	*1,822*	*3,548*	*1,595*	*3,414*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
They are new to the role	55	66	74	67	60	65	69	73	70
Their training is currently only partially completed	48	50	70	62	69	60	59	69	60
Staff lack motivation	37	32	33	24	30	38	39	38	51
They have been on training, but their performance has not improved sufficiently	28	19	28	23	26	38	36	35	41
Unable to recruit staff with the required skills	23	38	42	22	39	36	24	43	30
Problems retaining staff	21	23	29	16	22	29	24	33	46
The introduction of new working practices	31	45	31	35	23	33	27	29	23
They have not received the appropriate training	31	31	30	25	30	23	23	31	29
The introduction of new technology	31	32	29	25	25	24	25	27	18
The development of new products and services	18	28	25	21	18	15	20	27	14
Summary: New to the role / training not complete (transient factors)	**71**	**79**	**85**	**79**	**83**	**79**	**80**	**83**	**77**

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

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

Table A.3.6a Technical and practical skills lacking among staff with skills gaps, 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	*16,169*	*2,567*	*1,379*	*1,312*	*3,432*	*2,545*	*1,822*	*3,548*	*1,595*	*3,414*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Specialist skills or knowledge needed to perform the role	53	54	77	68	43	65	63	45	51	46
Knowledge of products and services offered by your organisation and organisations like yours	43	28	29	45	43	40	38	57	42	44
Solving complex problems requiring a solution specific to the situation	41	50	51	53	48	45	40	38	34	30
Knowledge of how your organisation works	40	33	47	41	38	29	42	44	32	42
Adapting to new equipment or materials	36	25	33	25	29	40	32	32	48	45
Reading and understanding instructions, guidelines, manuals or reports	34	25	16	26	30	35	44	29	47	41
Computer literacy / basic IT skills	28	36	31	26	32	24	37	28	29	23
Writing instructions, guidelines, manuals or reports	24	36	18	24	22	26	32	16	27	25
Basic numerical skills and understanding	24	17	23	9	18	19	25	19	34	34
More complex numerical or statistical skills and understanding	23	31	36	31	30	21	17	18	23	19
Advanced or specialist IT skills	20	32	42	29	38	18	15	17	9	10
Manual dexterity	18	7	3	4	7	30	14	9	34	31
Communicating in a foreign language	17	10	24	4	10	10	14	9	19	30
None of the above	7	9	6	8	6	10	7	9	5	7

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.3.6b People and personal skills lacking among staff with skills gaps, 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	*16,169*	*2,567*	*1,379*	*1,312*	*3,432*	*2,545*	*1,822*	*3,548*	*1,595*	*3,414*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Ability to manage own time and prioritise own tasks	60	60	72	56	57	59	65	65	57	56
Team working	50	54	53	42	41	48	61	48	57	51
Managing their own feelings, or handling the feelings of others	49	56	53	48	44	41	61	51	44	48
Customer handling skills	45	35	45	42	49	31	49	65	23	45
Managing or motivating other staff	41	70	60	49	30	37	42	33	34	37
Persuading or influencing others	38	54	57	42	36	29	38	43	25	33
Instructing, teaching or training people	30	46	51	35	24	31	30	23	28	24
Setting objectives for others and planning human, financial and other resources	28	58	54	43	22	22	23	20	16	23
Sales skills	26	23	15	25	24	17	13	56	6	25
Making speeches or presentations	19	33	45	36	20	13	16	15	8	11
None of the above	14	14	11	13	12	22	10	9	15	20

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

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

Table A.3.6c Technical and practical skills lacking among staff with skills gaps, by sector (prompted)

	Overall	Primary Sector & Utilities	Manufacturing	Construction	Wholesale & Retail	Hotels & Restaurants	Transport & Storage	Information & Comms	Financial Services	Business Services	Public Admin.	Education	Health & Social Work	Arts & Other Services
Unweighted base	*16,169*	*434*	*1,548*	*892*	*3,521*	*2,208*	*413*	*382*	*328*	*2,638*	*173*	*1,090*	*1,614*	*928*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Specialist skills or knowledge	53	46	65	60	43	45	48	62	73	54	42	59	64	55
Knowledge of products & services offered	43	36	48	35	50	50	43	54	63	36	24	31	34	46
Solving complex problems	41	40	34	48	37	37	44	59	53	40	26	43	51	39
Knowledge of how organisation works	40	38	39	27	40	45	49	40	48	34	27	36	48	39
Adapting to new equipment or materials	36	43	37	37	37	31	40	36	24	38	47	26	39	29
Reading and understanding instructions, reports etc.	34	50	49	35	33	32	43	15	31	32	19	30	36	24
Computer literacy / basic IT skills	28	37	23	23	31	19	30	17	36	24	29	36	48	27
Writing instructions, guidelines, etc	24	39	33	25	19	20	24	28	34	22	15	21	34	20
Basic numerical skills	24	40	36	18	22	27	29	11	7	19	11	18	35	19
Complex numerical or statistical skills	23	35	33	23	18	16	21	40	33	23	11	20	32	19
Advanced or specialist IT skills	20	13	16	17	16	9	20	52	22	23	16	30	33	15
Manual dexterity	18	40	27	30	14	14	19	9	2	25	11	4	9	12
Communicating in a foreign language	17	25	16	13	10	18	15	5	3	25	9	12	25	6
None of the above	7	9	4	9	8	11	7	6	8	6	10	8	5	9

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.3.6d People and personal skills lacking among staff with skills gaps, 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	*16,169*	*434*	*1,548*	*892*	*3,521*	*2,208*	*413*	*382*	*328*	*2,638*	*173*	*1,090*	*1,614*	*928*
	%	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*	*%*
Ability to manage own time and prioritise own tasks	60	66	49	62	65	70	56	58	56	56	45	60	71	60
Team working	50	65	49	51	50	61	52	45	46	39	40	56	64	53
Managing their own feelings, or handling feelings of others	49	55	46	44	48	55	46	58	39	39	47	59	66	52
Customer handling skills	45	34	15	32	54	66	46	50	49	38	27	35	54	57
Managing or motivating other staff	41	43	41	30	40	48	44	34	36	36	37	45	52	33
Persuading or influencing others	38	29	24	26	38	41	42	50	42	40	35	40	50	37
Instructing, teaching or training people	30	32	27	24	27	38	32	30	26	24	31	42	39	26
Setting objectives for others and planning resources	28	17	33	27	22	26	24	41	33	27	23	32	40	21
Sales skills	26	9	8	12	42	44	16	47	39	24	3	9	10	34
Making speeches or presentations	19	10	12	12	15	15	14	25	28	21	31	23	29	20
None of the above	14	15	12	21	11	8	12	7	24	25	18	10	7	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.3.6e Skills lacking among staff with skills gaps, by nation (prompted)

	Total	England	Northern Ireland	Wales
Unweighted base	*16,169*	*14,349*	*611*	*1,209*
	%	*%*	*%*	*%*
Technical and practical skills				
Specialist skills or knowledge needed to perform the role	53	53	56	53
Knowledge of products and services offered by your organisation	43	42	47	45
Solving complex problems requiring a solution specific to the situation	41	40	45	44
Knowledge of how your organisation works	40	40	41	36
Adapting to new equipment or materials	36	36	33	38
Reading and understanding instructions, guidelines, manuals or reports	34	34	32	41
Computer literacy / basic IT skills	28	28	25	35
Writing instructions, guidelines, manuals or reports	24	24	22	28
Basic numerical skills and understanding	24	23	23	32
More complex numerical or statistical skills and understanding	23	24	16	22
Advanced or specialist IT skills	20	21	17	17
Manual dexterity	18	17	31	18
Communicating in a foreign language	17	17	12	6
Oral Welsh language skills	1	-	-	12
Written Welsh language skills	*	-	-	10
None of the above	7	7	7	8
People and personal skills				
Ability to manage own time and prioritise own tasks	60	60	64	68
Team working	50	50	59	62
Managing their own feelings, or handling the feelings of others	49	49	38	53
Customer handling skills	45	45	33	45
Managing or motivating other staff	41	41	36	44
Persuading or influencing others	38	39	28	39
Instructing, teaching or training people	30	30	32	28
Setting objectives for others & planning human, financial & other resources	28	29	19	24
Sales skills	26	26	25	21
Making speeches or presentations	19	19	13	16
None of the above	14	14	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.3.7 Extent of impact of skills gaps, by year, country, size and sector

	Unweighted base		Major impact	Minor impact	No impact
Total 2013	*18,515*	%	16	47	37
Total 2015	*17,029*	%	17	48	35
Total 2017	*16,519*	%	17	48	35
Total 2019	*16,169*	%	15	51	34
Country					
England	*14,349*	%	15	51	34
Northern Ireland	*611*	%	14	52	35
Wales	*1,209*	%	16	51	33
Size					
2 to 4	*1,108*	%	16	47	36
5 to 24	*8,158*	%	15	50	35
25 to 49	*3,490*	%	13	55	32
50 to 99	*1,868*	%	11	54	34
100 to 249	*1,178*	%	14	60	26
250+	*367*	%	11	62	27
Sector					
Primary Sector & Utilities	*434*	%	12	50	39
Manufacturing	*1,548*	%	14	51	35
Construction	*892*	%	13	43	44
Wholesale & Retail	*3,521*	%	15	53	32
Hotels & Restaurants	*2,208*	%	18	55	27
Transport & Storage	*413*	%	17	51	32
Information & Communications	*382*	%	14	52	34
Financial Services	*328*	%	11	48	41
Business Services	*2,638*	%	16	50	34
Public Administration	*173*	%	11	53	36
Education	*1,090*	%	9	54	37
Health & Social Work	*1,614*	%	12	51	37
Arts & Other Services	*928*	%	15	49	36

Base: All establishments with skills gaps

Table A.3.8 Implications of skills gaps (prompted), by country, size and sector (prompted)

	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	No particular problems / None of these
Total	*16,169*	%	52	26	24	23	19	15	10	40
Country										
England	*14,349*	%	52	26	24	23	19	15	10	40
Northern Ireland	*611*	%	53	26	23	26	17	14	10	41
Wales	*1,209*	%	54	29	26	23	17	17	8	39
Size										
2 to 4	*1,108*	%	46	22	18	20	20	16	11	44
5 to 24	*8,158*	%	53	25	25	23	20	15	9	40
25 to 49	*3,490*	%	55	29	27	26	19	14	11	38
50 to 99	*1,868*	%	54	30	28	25	15	14	13	40
100 to 249	*1,178*	%	62	36	32	30	18	16	15	31
250+	*367*	%	59	40	27	32	18	14	17	34
Sector										
Primary Sector & Utilities	*434*	%	49	32	23	23	12	10	11	44
Manufacturing	*1,548*	%	51	36	26	23	17	21	13	41
Construction	*892*	%	41	25	15	13	14	10	10	51
Wholesale & Retail	*3,521*	%	55	24	21	24	24	14	7	38
Hotels & Restaurants	*2,208*	%	58	34	36	28	26	19	11	33
Transport & Storage	*413*	%	57	35	29	22	24	15	14	36
Information & Communications	*382*	%	53	23	21	21	21	25	14	38
Financial Services	*328*	%	45	19	19	10	13	8	5	47
Business Services	*2,638*	%	52	26	23	22	21	17	13	41
Public Administration	*173*	%	49	16	23	29	2	13	9	42
Education	*1,090*	%	54	19	23	27	7	11	11	43
Health & Social Work	*1,614*	%	51	21	24	26	9	15	10	42
Arts & Other Services	*928*	%	49	19	25	25	14	14	9	45

Base: All establishments with skills gaps

Chapter 4: Training and workforce development

Table A.4.1 Proportion of employers providing any training (2013-2019), by country, size and sector

	2013		2015		2017		2019	
	Unwtd. base	Any training	*Unwtd. base*	Any training	*Unwtd. base*	Any training	*Unwtd. base*	Any training
		%		%		%		%
Total	*85,265*	65	*85,175*	65	*81,413*	66	*81,013*	61
Country								
England	*75,255*	66	*75,129*	66	*71,527*	66	*70,217*	61
Northern Ireland	*4,014*	63	*4,019*	62	*3,973*	63	*4,023*	59
Wales	*5,996*	62	*6,027*	63	*5,913*	62	*6,773*	62
Size								
2 to 4	*17,949*	51	*19,263*	51	*16,137*	52	*20,183*	46
5 to 24	*48,387*	77	*46,565*	77	*43,798*	77	*40,611*	75
25 to 49	*10,078*	92	*10,728*	92	*11,500*	92	*10,795*	91
50 to 99	*5,102*	95	*5,346*	95	*5,974*	95	*5,377*	94
100 to 249	*2,674*	97	*2,440*	96	*3,018*	96	*3,122*	95
250+	*1,075*	97	*833*	97	*986*	96	*925*	95
Sector								
Primary Sector & Utilities	*4,067*	52	*4,248*	52	*4,460*	53	*2,952*	54
Manufacturing	*7,013*	58	*6,450*	62	*6,169*	61	*6,234*	54
Construction	*6,706*	55	*6,985*	57	*6,422*	58	*5,249*	52
Wholesale & Retail	*16,296*	61	*15,188*	59	*13,581*	60	*17,503*	57
Hotels & Restaurants	*8,317*	62	*8,338*	63	*7,898*	64	*7,594*	60
Transport & Storage	*3,887*	60	*4,357*	63	*3,746*	60	*2,330*	58
Information & Communications	*2,557*	66	*3,996*	60	*3,721*	60	*2,511*	52
Financial Services	*2,125*	76	*2,322*	74	*2,471*	77	*1,577*	74
Business Services	*13,227*	67	*12,380*	67	*12,875*	68	*15,490*	62
Public Administration	*818*	89	*845*	90	*1,004*	90	*840*	86
Education	*5,442*	91	*5,177*	93	*5,146*	91	*5,012*	89
Health & Social Work	*7,892*	89	*7,962*	88	*7,379*	86	*8,092*	84
Arts & Other Services	*6,918*	69	*6,927*	69	*6,541*	67	*5,629*	60

Base: All establishments

Table A.4.2 Proportion of employers providing off- and on-the-job training (2013-2019)

	2013		2015		2017		2019	
	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 train-ing
	%	%	%	%	%	%	%	%
Total	48	52	48	52	48	53	43	49
Country								
England	48	52	48	52	48	53	43	49
Northern Ireland	49	47	47	49	47	48	42	46
Wales	47	48	49	49	47	48	45	49
Size								
2 to 4	35	37	35	37	35	39	31	34
5 to 24	58	63	58	64	57	64	52	62
25 to 49	77	83	76	83	75	83	72	81
50 to 99	82	88	82	88	81	87	79	87
100 to 249	86	92	85	91	85	90	82	89
250+	88	93	86	92	87	92	84	91
Sector								
Primary Sector & Utilities	42	33	43	34	41	35	43	36
Manufacturing	42	44	45	49	45	49	37	43
Construction	44	36	46	37	47	40	41	35
Wholesale & Retail	40	49	38	48	39	49	35	46
Hotels & Restaurants	39	50	40	52	40	54	35	50
Transport & Storage	43	43	47	49	42	47	44	43
Information & Communications	49	53	42	47	41	48	34	41
Financial Services	54	65	53	64	57	66	51	65
Business Services	50	52	51	53	50	54	44	49
Public Administration	72	78	75	78	76	77	72	72
Education	80	82	82	84	80	82	75	79
Health & Social Work	74	76	72	77	69	75	63	74
Arts & Other Services	51	56	51	57	48	56	43	49

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

Table A.4.3 Number employed and trained over the last 12 months by sector, and the proportion of the workforce trained

	2013	2015	2017	2019			
	% of staff trained	% of staff trained	% of staff trained	*Unwtd. base*	Number employed (000s)	Number trained (000s)	% of staff trained
Primary Sector & Utilities	52	48	f49	*2,952*	702	350	50
Manufacturing	50	51	48	*6,234*	2,232	1,063	48
Construction	48	52	50	*5,249*	1,226	587	48
Wholesale & Retail	55	55	58	*17,503*	4,245	2,248	53
Hotels & Restaurants	60	64	62	*7,594*	2,138	1,322	62
Transport & Storage	59	57	51	*2,330*	1,296	685	53
Information & Communications	51	54	54	*2,511*	1,076	559	52
Financial Services	66	70	72	*1,577*	893	598	67
Business Services	60	60	60	*15,490*	5,278	3,025	57
Public Administration	68	75	58	*840*	1,147	820	72
Education	76	75	76	*5,012*	2,425	1,812	75
Health & Social Work	79	78	80	*8,092*	3,606	2,746	76
Arts & Other Services	63	60	59	*5,629*	1,270	731	58

Base: All establishments

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.4.4 Unweighted base sizes for Figure 4-4

	2015	2017	2019
Occupation			
Managers	81,843	78,105	77,494
Professionals	16,234	18,173	17,819
Associate professionals	12,334	13,987	13,052
Administrative / clerical staff	19,915	50,416	48,948
Skilled trades occupations	22,306	20,805	21,410
Caring, leisure and other services	14,303	13,085	12,802
Sales and customer services	24,362	23,721	23,959
Machine operatives	12,998	13,619	13,265
Elementary staff	85,175	28,289	26,003

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

Table A.4.5 Unweighted base sizes for Table 4-2

	2013	2015	2017	2019
Total	64,958	64,647	62,951	59,049
Country				
England	57,787	57,422	55,775	51,203
Northern Ireland	2,894	2,869	2,893	2,906
Wales	4,277	4,356	4,283	4,940
Size				
2 to 4	8,992	9,633	8,215	9,459
5 to 24	38,152	36,906	34,584	30,850
25 to 49	9,311	9,872	10,614	9,830
50 to 99	4,850	5,084	5,682	5,056
100 to 249	2,606	2,344	2,903	2,968
250+	1,047	808	953	886

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

Table A.4.6 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+
Total	*59,049*	%	15	17	21	16	12	14
Country								
England	*51,203*	%	15	17	20	16	11	14
Northern Ireland	*2,906*	%	14	18	22	16	12	12
Wales	*4,940*	%	14	16	21	18	12	14
Size								
2 to 4	*9,459*	%	15	16	21	16	12	15
5 to 24	*30,850*	%	15	17	20	15	12	14
25 to 49	*9,830*	%	14	17	20	16	11	13
50 to 99	*5,056*	%	13	17	20	16	11	12
100 to 249	*2,968*	%	16	18	18	16	9	11
250+	*886*	%	15	19	18	14	10	11
Sector								
Primary Sector & Utilities	*1,883*	%	18	21	24	14	9	9
Manufacturing	*4,191*	%	16	19	18	15	10	14
Construction	*3,516*	%	15	17	21	19	10	13
Wholesale & Retail	*11,475*	%	17	17	19	13	11	16
Hotels & Restaurants	*5,561*	%	20	15	18	11	12	15
Transport & Storage	*1,662*	%	17	20	18	21	10	10
Information & Communications	*1,598*	%	11	14	20	17	13	17
Financial Services	*1,268*	%	9	12	19	18	14	22
Business Services	*11,174*	%	13	16	22	17	12	15
Public Administration	*719*	%	12	18	19	17	11	14
Education	*4,764*	%	12	16	23	23	12	7
Health & Social Work	*7,262*	%	10	14	22	17	13	15
Arts & Other Services	*3,976*	%	17	18	21	15	10	14

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

Table A.4.7 Total training and development days, and days per person trained, and per employee, by sector (2013 – 2019)

	2013				2015				2017				2019			
	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
Total	*64,958*	103.2m	6.7	4.2	*64,647*	107.9m	6.8	4.2	*62,951*	104.5m	6.4	4.0	*59,049*	98.7m	6.0	3.6
Sector																
Primary Sector & Utilities	*2,324*	2.5m	7.9	4.1	*2,456*	1.6m	5.3	2.6	*2,656*	1.5m	4.8	2.4	*1,883*	2.0m	5.6	2.8
Manufacturing	*4,798*	5.5m	5.2	2.6	*4,599*	6.9m	6.2	3.1	*4,500*	6.1m	5.8	2.8	*4,191*	5.2m	4.9	2.3
Construction	*4,420*	3.4m	6.2	3.0	*4,683*	3.8m	6.9	3.6	*4,711*	3.5m	6.5	3.3	*3,516*	3.8m	6.5	3.1
Wholesale & Retail	*11,650*	17.6m	7.8	4.3	*10,719*	17.3m	7.6	4.2	*10,005*	16.2m	6.6	3.9	*11,475*	13.7m	6.1	3.2
Hotels & Restaurants	*6,291*	8.9m	9.1	5.4	*6,359*	12.1m	10.7	6.8	*6,017*	10.8m	8.9	5.6	*5,561*	10.5m	8.0	4.9
Transport & Storage	*2,671*	2.9m	4.3	2.6	*2,865*	3.5m	5.5	3.1	*2,505*	2.7m	4.5	2.3	*1,662*	3.4m	4.9	2.6
Information & Communications	*1,924*	3.5m	8.3	4.2	*2,685*	2.7m	5.2	2.8	*2,591*	2.5m	4.9	2.6	*1,598*	2.8m	5.1	2.6
Financial Services	*1,660*	3.2m	5.1	3.3	*1,738*	3.3m	5.3	3.7	*1,997*	3.5m	5.3	3.8	*1,268*	3.0m	5.1	3.4
Business Services	*10,444*	18m	7.2	4.4	*9,974*	16.9m	6.3	3.8	*10,284*	16.7m	5.6	3.4	*11,174*	17.2m	5.7	3.3
Public Admin.	*744*	6.6m	7.6	5.2	*759*	4.6m	5.1	3.8	*889*	6.5m	9.8	5.7	*719*	6.7m	8.2	5.8
Education	*5,224*	9m	4.9	3.8	*4,970*	10.1m	5.5	4.2	*4,950*	9.2m	5.0	3.8	*4,764*	8.3m	4.6	3.4
Health & Social Work	*7,385*	16.9m	6.6	5.2	*7,385*	19.2m	7.2	5.6	*6,819*	20.2m	7.2	5.8	*7,262*	17.8m	6.5	4.9
Arts & Other Services	*5,423*	5.2m	7.4	4.6	*5,455*	5.8m	8.3	5.0	*5,027*	4.9m	6.6	3.9	*3,976*	4.3m	5.9	3.4

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

Table A.4.8 Types of training provided over the last 12 months (prompted)

	Unwtd. base		Job specific	Health & Safety	Basic induction*	New technology	Extensive induc-tion*	Management	Supervisory
Total 2013	*64,958*	%	85	74	n/a	48	n/a	36	34
Total 2015	*64,647*	%	85	75	66	50	37	37	37
Total 2017	*62,951*	%	84	74	65	47	36	35	35
Total 2019	*59,049*	%	84	71	60	48	34	32	31
Country									
England	*51,203*	%	85	71	61	48	34	32	32
Northern Ireland	*2,906*	%	79	72	57	46	30	30	28
Wales	*4,940*	%	85	73	61	47	33	31	30
Size									
2 to 4	*9,459*	%	80	56	38	46	20	18	19
5 to 24	*30,850*	%	86	78	71	47	39	34	34
25 to 49	*9,830*	%	91	91	89	53	54	56	51
50 to 99	*5,056*	%	93	95	93	61	62	66	58
100 to 249	*2,968*	%	95	96	95	68	67	75	69
250+	*886*	%	96	95	96	76	72	86	83
Sector									
Primary Sector & Utilities	*1,883*	%	82	71	40	40	20	18	19
Manufacturing	*4,191*	%	82	77	62	45	34	25	28
Construction	*3,516*	%	78	74	47	39	20	20	27
Wholesale & Retail	*11,475*	%	85	73	66	53	37	35	36
Hotels & Restaurants	*5,561*	%	85	85	78	36	44	44	48
Transport & Storage	*1,662*	%	86	73	60	37	32	24	23
Information & Communications	*1,598*	%	81	47	47	72	27	22	19
Financial Services	*1,268*	%	90	52	56	57	35	34	33
Business Services	*11,174*	%	85	55	52	55	29	28	25
Public Administration	*719*	%	90	81	70	56	46	50	44
Education	*4,764*	%	90	90	77	48	47	53	39
Health & Social Work	*7,262*	%	88	89	75	43	49	46	43
Arts & Other Services	*3,976*	%	81	74	61	42	32	25	27

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 is not comparable.

Table A.4.9 Percentage of training that has been health and safety or induction training (2011 – 2019)

	2013	2015	2017	2019			
	Total	Total	Total	Total	England	Northern Ireland	Wales
Unweighted base	*64,958*	*64,647*	*62,951*	*59,049*	*51,203*	*2,906*	*4,940*
	%	*%*	*%*	*%*	*%*	*%*	*%*
Less than 20%	*35*	*25*	24	25	25	22	26
20-49%	*27*	*23*	21	22	22	20	21
50-80%	*18*	*17*	17	15	15	16	16
More than 80% but not all	*4*	*4*	4	4	4	4	4
All of it (100%)	*12*	*11*	13	12	12	16	12
None	*0*	*15*	16	20	20	20	18
Don't know	*4*	*5*	5	4	4	3	4

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

Table A.4.10 Total training expenditure and training spend per person trained and per employee by country and size (2013 - 2019), in 2019 prices

	2013			2015			2017			2019		
	Total	Per trainee	Per employee	Total	Per trainee	Per employee	Total	Per trainee	Per employee	Total	Per trainee	Per employee
	£	£	£	£	£	£	£	£	£	£	£	£
Total	39.3bn	2,570	1,590	42.0bn	2,640	1,650	42.2bn	2,580	1,600	42bn	2,540	1,530
Country												
England	36.2bn	2,560	1,590	38.9bn	2,640	1,660	39.1bn	2,570	1,600	39.2bn	2,570	1,530
Northern Ireland	1.1bn	2,650	1,550	1.0bn	2,080	1,340	1.1bn	2,440	1,470	1.1bn	2,190	1,410
Wales	1.9bn	2,690	1,670	2.1bn	2,830	1,800	2.1bn	2,910	1,680	1.7bn	2,130	1,610
Size												
2 to 4	5.1bn	5,640	2,320	5.7bn	6,100	2,580	5.9bn	5,730	2,420	5.2bn	5,500	2,320
5 to 24	11.7bn	3,670	1,990	12.9bn	3,800	2,120	13.3bn	3,830	2,120	12.5bn	3,600	2,040
25 to 49	5.9bn	3,070	1,930	5.8bn	2,790	1,810	6.4bn	3,050	1,950	6bn	2,860	1,870
50 to 99	4.9bn	2,350	1,540	5.9bn	2,780	1,830	5.0bn	2,320	1,520	5.7bn	2,510	1,460
100+	11.7bn	1,630	1,130	11.7bn	1,580	1,100	11.6bn	1,520	1,040	12.6bn	1,630	1,000

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.4.11 Total training expenditure and training spend per person trained and per employee by sector (2013 - 2019), in 2019 prices

	2013			2015			2017			2019		
	Total	Per trainee	Per employee	Total	Per trainee	Per employee	Total	Per trainee	Per employee	Total	Per trainee	Per employee
	£	£	£	£	£	£	£	£	£	£	£	£
Total	39.3bn	2,570	1,590	42.0bn	2,640	1,650	42.2bn	2,580	1,600	42bn	2,540	1,530
Sector												
Primary Sector & Utilities	0.7bn	2,130	1,120	1.1bn	3,760	1,820	1.0bn	2,960	1,460	0.9bn	2,540	1,400
Manufacturing	2.4bn	2,210	1,100	2.6bn	2,380	1,210	2.8bn	2,610	1,250	2.7bn	2,500	1,200
Construction	2.3bn	4,250	2,050	2.2bn	4,090	2,140	2.6bn	4,770	2,390	2.6bn	4,370	2,290
Wholesale & Retail	5.8bn	2,580	1,430	4.7bn	2,060	1,140	6.1bn	2,500	1,460	4.6bn	2,060	1,400
Hotels & Restaurants	2.3bn	2,400	1,430	2.9bn	2,590	1,660	3.0bn	2,480	1,550	2.7bn	2,060	1,480
Transport & Storage	1.2bn	1,790	1,060	1.3bn	2,110	1,190	1.4bn	2,330	1,190	1.4bn	2,100	1,140
Information & Comms	1.8bn	4,340	2,190	1.8bn	3,420	1,840	1.4bn	2,740	1,480	1.6bn	2,840	1,420
Financial Services	1.2bn	1,920	1,260	1.5bn	2,400	1,680	1.3bn	1,920	1,380	1.3bn	2,160	1,320
Business Services	7.9bn	3,160	1,910	9.3bn	3,480	2,100	9.4bn	3,170	1,910	11.4bn	3,770	1,830
Public Administration	1.8bn	2,060	1,400	1.8bn	2,030	1,530	1.9bn	2,930	1,680	1.7bn	2,050	1,620
Education	5.2bn	2,860	2,180	4.2bn	2,320	1,730	3.7bn	2,000	1,530	3.5bn	1,930	1,460
Health & Social Work	4.8bn	1,880	1,480	5.8bn	2,170	1,690	5.3bn	1,920	1,530	5.9bn	2,140	1,470
Arts & Other Services	1.9bn	2,770	1,730	2.6bn	3,670	2,210	2.2bn	3,040	1,810	1.7bn	2,380	1,730

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.4.12 Unweighted base sizes for all establishments training, by country, size and sector (2013 – 2019)

	2013	2015	2017	2019
Total	11,093	11,549	11,059	10,255
Country				
England	8,704	9,616	8,872	8,068
Northern Ireland	1,028	699	859	825
Wales	1,361	1,234	1,328	1,362
Size				
2 to 4	2,146	1,801	1,927	2,319
5 to 24	6,122	7,082	6,189	5,132
25 to 49	1,513	1,597	1,615	1,429
50 to 99	788	691	836	719
100+	524	378	492	656
Sector				
Primary Sector & Utilities	379	383	472	354
Manufacturing	786	872	712	683
Construction	811	743	769	592
Wholesale & Retail	1,772	1,681	1,504	1,751
Hotels & Restaurants	945	1,150	883	707
Transport & Storage	482	500	466	280
Information & Communications	379	523	516	344
Financial Services	320	313	340	241
Business Services	2,124	1,929	2133	2,318
Public Administration	169	162	212	152
Education	563	621	788	814
Health & Social Work	1,383	1,655	1,310	1,272
Arts & Other Services	980	1,017	954	747

Base: Establishments completing the Investment in Training study.

Appendix B: National time series tables

The ESS series from 2011 was designed in such a way to preserve, where possible, key time series measures from the surveys carried out previously by the individual nations.

The degree to which nations 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.

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	ESS 2019
Vacancies and skill-shortage vacancies (SSVs)									
% of establishments with any vacancies	17%	17%	18%	12%	14%	15%	20%	20%	**17%**
% with any hard-to-fill vacancies	8%	7%	7%	3%	5%	5%	8%	8%	**8%**
% with SSVs	n/a	5%	5%	3%	3%	4%	6%	6%	**6%**
% of all vacancies which are SSVs	n/a	25%	21%	16%	15%	22%	23%	22%	**25%**
Number of vacancies	679,000	574,000	620,000	386,000	501,000	560,000	797,000	873,000	**812,000**
Number of hard-to-fill vacancies	271,000	204,000	184,000	85,000	107,000	160,000	262,000	287,000	**292,000**
Number of skill-shortage vacancies	135,000	143,000	130,000	63,000	77,000	125,000	180,000	194,000	**199,000**
Skills gaps									
% of establishments with any staff not fully proficient	22%	16%	15%	19%	17%	15%	14%	13%	**13%**
Number of skills gaps	2.4m	1.26m	1.36m	1.70m	1.28m	1.17m	1.18m	1.06m	**1.17m**
Number of staff not fully proficient as a % of employment	11%	6%	6%	7%	6%	5%	5%	4%	**5%**
Training									
% of establishments training any staff over the last 12 months	59%	65%	67%	68%	65%	66%	66%	66%	**61%**
% providing off-the-job training in the last 12 months	n/a	46%	46%	51%	47%	48%	48%	48%	**43%**
% of the workforce trained	53%	61%	63%	56%	54%	62%	63%	62%	**60%**
Total number of training days	n/a	n/a	n/a	109m	97m	95m	100m	98m	**92m**

Northern Ireland Time Series: Key Figures

	ESS 2011	ESS 2013	ESS 2015	ESS 2017	ESS 2019
Vacancies and skill-shortage vacancies (SSVs)					
% of establishments with any vacancies	10%	10%	13%	16%	**14%**
% with any hard-to-fill vacancies	3%	3%	4%	6%	**7%**
% with SSVs	2%	3%	3%	5%	**4%**
% of all vacancies which are SSVs	21%	19%	14%	21%	**22%**
Number of vacancies	18,000	15,000	20,000	23,000	**24,000**
Number of hard-to-fill vacancies	5,000	4,000	4,000	7,000	**8,000**
Number of skill-shortage vacancies	4,000	3,000	3,000	5,000	**5,000**
Skills gaps					
% of establishments with any staff not fully proficient	13%	14%	9%	12%	**10%**
Number of skills gaps	34,000	38,000	24,000	28,000	**26,000**
Number of staff not fully proficient as a % of employment	4%	5%	3%	4%	**3%**
Training					
% of establishments training any staff over the last 12 months	65%	63%	62%	63%	**59%**
% providing off-the-job training in the last 12 months	48%	49%	47%	47%	**42%**
% of the workforce trained	56%	59%	64%	60%	**62%**
Total number of training days	2.7m	2.7m	2.6m	2.6m	**2.7m**

Wales Time Series: Key Figures

	FSW 05	ESS 2011	ESS 2013	ESS 2015	ESS 2017	ESS 2019
Vacancies and skill-shortage vacancies (SSVs)						
% of establishments with any vacancies	21%	12%	14%	17%	17%	**15%**
% with any hard-to-fill vacancies	10%	4%	5%	7%	8%	**7%**
% with SSVs	4%	3%	4%	6%	6%	**5%**
% of all vacancies which are SSVs	14%	18%	20%	24%	27%	**24%**
Number of vacancies	38,000	23,000	26,000	37,000	36,000	**41,000**
Number of hard-to-fill vacancies	13,000	7,000	7,000	12,000	13,000	**14,000**
Number of skill-shortage vacancies	5,000	4,000	5,000	9,000	10,000	**10,000**
Skills gaps						
% of establishments with any staff not fully proficient	18%	16%	16%	14%	13%	**13%**
Number of skills gaps	64,000	54,000	67,000	54,000	57,000	**51,000**
Number of staff not fully proficient as a % of employment	6%	5%	6%	5%	5%	**4%**
Training						
% of establishments training any staff over the last 12 months	n/a	63%	62%	63%	62%	**62%**
% providing off-the-job training in the last 12 months	n/a	47%	47%	49%	47%	**45%**
% of the workforce trained	n/a	56%	62%	64%	58%	**65%**
Total number of training days	n/a	4.9m	5.6m	5.4m	4.4m	**4.2m**

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 or IDBR 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 or IDBR 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.[31]

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

[31] UK Standard Industrial Classification of Economic Activities 2007 (SIC 2007), Source: Companies House, *Standard industrial classification of economic activities (SIC)* (2008)

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
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 SD5A to SD8) 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 SC7) 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	HGV, van, fork-lift, bus and taxi drivers	Drivers, vehicle inspectors

	operators, sorters and assemblers		
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 ±0.34%, 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 49.66% to 50.34%'. Significance testing on employer measures use the unweighted respondent base, while employment measures, and density measures such as the proportion of the workforce with skills gaps and skills-shortage vacancy density, have been calculated on the basis of the unweighted employment (or vacancy) base.

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 95% confidence level) associated with findings of 50%

	Population	Number of interviews	(Maximum) Sampling Error
Overall	**1,831,000**	**81,013**	**± 0.34**
By country			
England	1,683,000	70,217	± 0.36
Northern Ireland	59,000	4,023	± 1.49
Wales	89,000	6,773	± 1.14
By size			
2 to 4	998,000	20,183	± 0.68
5 to 9	381,000	20,012	± 0.67
10 to 24	267,000	20,599	± 0.66
25 to 49	98,000	10,795	± 0.89
50 to 99	50,000	5,377	± 1.26
100 to 249	27,000	3,122	± 1.65
250+	11,000	925	± 3.09
By sector			
Primary Sector & Utilities	99,000	2,952	± 1.78
Manufacturing	94,000	6,234	± 1.20
Construction	179,000	5,249	± 1.33
Wholesale and Retail	348,000	17,503	± 0.72
Hotels and Restaurants	172,000	7,594	± 1.10
Transport and Storage	62,000	2,330	± 1.99
Information and Communications	91,000	2,511	± 1.93
Financial Services	37,000	1,577	± 2.41
Business Services	426,000	15,490	± 0.77
Public Administration	15,000	840	± 3.29
Education	55,000	5,012	± 1.32
Health and Social Work	120,000	8,092	± 1.05
Arts and Other Services	134,000	5,629	± 1.28

Source for population data is the ONS Inter-Departmental Register (IDBR). Populations have been rounded to the nearest 1,000.

Appendix F: Survey population estimates (weighted)

	Total	England	Northern Ireland	Wales
Overall number of establishments	1,830,802	1,683,072	58,663	89,067
Chapter 2: Recruitment and skill-shortage vacancies				
With a vacancy	309,543	287,541	8,274	13,279
With a hard-to-fill vacancy	137,437	127,197	3,839	6,400
With a skill-shortage vacancy	100,012	92,754	2,482	4,775
Chapter 3: The Internal Skills Challenge				
With at least one skills gap	241,392	224,344	5,757	11,292
With at least one employee with more qualifications and skills than job role requires	775,395	711,881	25,055	38,459
Chapter 4: Training and Workforce Development				
Provided any training in the previous 12 months	1,116,885	1,026,938	34,514	55,433
Any on-the-job training	892,833	822,421	26,972	43,440
Any off-the-job training	785,700	721,460	24,494	39,746
Both on- and off-the-job training	561,648	516,943	16,952	27,753
Provided no training for staff	713,916	656,134	24,149	33,634
Provided training towards a nationally recognised qualification	485,839	445,157	13,701	26,891

Base: All establishments

Appendix G: References

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