



ENERGY &  
UTILITY SKILLS

Skills for a greener world

# National Employer Skills Survey 2022

## Summary report for the energy and utilities sector

August 2024



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# 1 Executive summary

## 1.1 Introduction

1.1.1 The Employer Skills Survey (ESS) 2022 is a large-scale telephone survey of 72,918 employers (between June 2022 and March 2023) across the UK, providing labour market information on the skills challenges faced by employers.

1.1.2 This report summarises the findings of the ESS 2022 as they relate to the “Primary Sector & Utilities”, including:

- Agriculture, forestry and fishing
- Mining and quarrying
- Electricity, gas, steam and air conditioning supply
- Water supply, sewerage, waste management and remediation activities

## 1.2 Vacancies

1.2.1 Businesses had nearly 1.5 million vacancies in 2022; 57% of which were proving hard-to-fill (for a wide range of reasons).

1.2.2 Hard-to-fill vacancies are slightly less prevalent within Primary Sector & Utilities (53% of the 34,662 reported vacancies), and within those industries related to the energy and utilities sector.

## 1.3 Skills shortages

1.3.1 Overall, there were 531,200 skills shortage vacancies (SSVs) reported in the UK in 2022. This is more than twice the number recorded in 2017 (226,500).

1.3.2 Within the Primary Sector & Utilities there were 9,600 SSVs, including 2,000 in Electricity, gas, steam and air conditioning supply and 1,000 in Waste collection, treatment and disposal activities; materials recovery.

1.3.3 The density of SSVs (i.e. the proportion of all vacancies that were SSVs) was 36% in 2022 – up from 24% in 2017. Within the Primary Sector & Utilities, 28% of all vacancies were SSVs – a reduction from the 33% in 2017.

1.3.4 Primary Sector & Utilities was the only sector where the density of SSVs fell in comparison to 2017.

1.3.5 Looking at occupations, employers were most likely to have experienced skills-related difficulties when recruiting for Skilled Trades positions (51% of all vacancies in this occupation were SSVs).

1.3.6 Within the Primary Sector & Utilities, SSVs were primarily felt within:

- Associate Professionals (42%)
  - E.g. Electrical/Electronic, Engineering, Civil Engineering and Laboratory Technicians; Water Tester; Estimator; Buyer/Procurement Officer
- Skilled Trades occupations (37%)
  - E.g. Welder; Pipe Fitter; Mechanical Engineer; Heating/Air Conditioning Engineer/Installer; Electrical/ Electronic/ Maintenance Fitter; Electrician; Cable Jointer; Telecoms Engineer; Overhead Linesworker
- Professionals (31%)
  - E.g. Chemical/ Biological/ Physical/ Environmental Scientist; Legal/ Regulatory Professional; Quantity Surveyor; Project Manager
- Elementary occupations (31%)
  - E.g. Electrician's Mate; Fitter's Mate; Ground Worker; Labourer; Refuse Collector; Refuse Disposal Operative

1.3.7 87% of all SSVs were caused, at least in part, by a lack of technical and practical skills (similar to the 88% in 2017).

## 1.4 Skills gaps

1.4.1 Skills gaps density (the proportion of the workforce lacking full proficiency) increased from 4.4% in 2017 to 5.7% in 2022.

1.4.2 Skills gap density within the Primary Sector & Utilities stood at 4.6% in 2022, down slightly from 4.7% in 2017. This is the only sector that experienced a fall in skills gap density between these years.

1.4.3 Skills gaps within the Primary Sector & Utilities were more likely (excluding Caring, Leisure & Other Services) amongst Skilled Trades (8.3% of the workforce judged not fully proficient) and Sales & Customer Services (7.9%).

## 1.5 Training and workforce development

1.5.1 Overall, 60% of employers had funded or arranged any training over the previous 12 months for any employees on the payroll of their site.

1.5.2 Training was least common in the Primary Sector and Utilities (47%), and Construction (52%) sectors.

1.5.3 The proportion of the total workforce that received training over the previous 12 months decreased from 62% in 2017 to 60% in 2022.

1.5.4 In the Primary Sector and Utilities, 46% of staff were trained in 2022; down from 52% in 2017. This is the largest decrease recorded of any sector over this time period.

1.5.5 Overall, employers provided an average of 6.0 training days per annum per person trained and 3.6 days per employee.

1.5.6 In the Primary Sector and Utilities, employers provided an average of 7.4 training days per annum per person trained ('per trainee') (only Hotels and Restaurants provided more training per trainee, at 7.5) and 3.4 days per employee.

1.5.7 Training spend **per person trained** remains higher in the Primary Sector and Utilities sector (£3,300 per person trained – down from £3,500 in 2017) than the national average (£3,000 per person trained – down from £3,200 in 2017).

1.5.8 However, training spend **per employee** remains lower in the Primary Sector and Utilities (£1,500 per employee – down from £1,800 in 2017) than the national average (£1,800 per employee – down from £2,000 in 2017).

1.5.9 At the time of interview, 19% of all employers either had apprentices at their site (11%) or offered apprenticeships but did not have any currently (8%).

1.5.10 Within Primary Sector and Utilities, just 10% of employers either had apprentices at their site (4%) or offered apprenticeships but did not have any currently (6%).

1.5.11 37% of all employers who have current apprentices and plan to continue offering Apprenticeships said they expect to increase apprentice numbers over the next two years. However, just 23% of Primary Sector and Utilities employers said the same – the lowest proportion of any sector.

1.5.12 However, just 1% of Primary Sector and Utilities employers said they expect apprentice numbers to decrease over the next two years (the joint lowest of any sector) – compared to 5% of all employers.

## 2 Introduction

### About the survey

2.1.2 The Employer Skills Survey (ESS) 2022 is a large-scale telephone survey of 72,918 employers across the UK, providing labour market information on the skills challenges faced by employers.

2.1.3 Fieldwork took place from June 2022 to March 2023.

2.1.4 This report, produced by Energy & Utility Skills, summarises the findings of the ESS 2022 as they relate to the “Primary Sector & Utilities”. Included within this sector definition is:

- Agriculture, forestry and fishing
- Mining and quarrying
- Electricity, gas, steam and air conditioning supply
- Water supply, sewerage, waste management and remediation activities

2.1.5 Where the data allows, more detailed analysis is provided by a number of relevant industries:

- Electricity, gas, steam and air conditioning supply
- Water collection, treatment and supply
- Sewerage
- Waste collection, treatment and disposal activities; materials recovery
- Civil engineering (constructing roads, railways and other utility projects)

## 3 Vacancies

3.1.1 23% of all businesses had at least one vacancy, as did just 12% of businesses in Primary Sector & Utilities.

3.1.2 However, when looking at industries that relate specifically to the energy and utilities sector, the proportion of businesses that had at least vacancy is more in line with the national average.

3.1.3 Businesses had nearly 1.5 million vacancies in 2022; 57% of which were proving hard-to-fill (for a wide range of reasons).

3.1.4 Hard-to-fill vacancies are slightly less prevalent within Primary Sector & Utilities (53% of the 34,662 reported vacancies), and within those industries related to the energy and utilities sector.

Figure 1: Number of vacancies and the proportion of businesses with at least one vacancy – industries related to energy and utilities

Industry	Number of vacancies	% of vacancies that were hard-to-fill	% of businesses with at least one vacancy
Electricity, gas, steam and air conditioning supply	7,468	43%	26%
Water collection, treatment and supply	*	*	22%
Sewerage	*	*	26%
Waste collection, treatment and disposal activities; materials recovery	6,161	48%	22%
Civil engineering	8,187	52%	20%
<b>All sectors</b>	<b>1,495,000</b>	<b>57%</b>	<b>23%</b>

\* Data is suppressed due to a small sample size

## 4 Skills shortages

4.1.1 Employers that indicated that they had vacancies at the time of the interview were asked whether any of those had proved hard-to-fill and, if so, whether it was due to a lack of skills, experience or qualifications among applicants – such vacancies are called “skills shortage vacancies” (SSVs).

4.1.2 It is noting that a high incidence of SSVs does not necessarily imply those skills were lacking in the local labour market, since it may simply be that those with the requisite skills were not interested in applying due to the unattractiveness of the role (aspects such as the pay or conditions).

4.1.3 Overall, there were 531,200 SSVs reported in the UK in 2022. This is more than twice the number recorded in 2017 (226,500). SSVs have increased in every ESS since 2011.

### 4.2 By sector

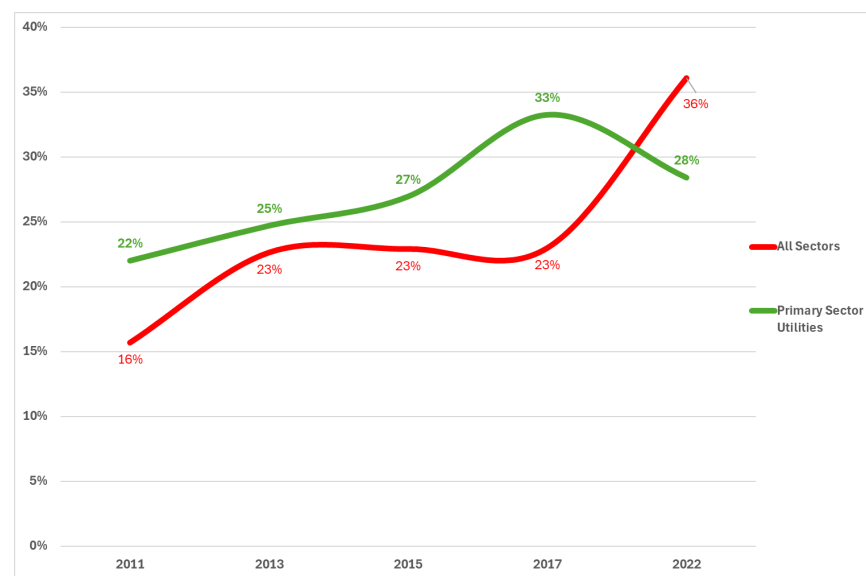
4.2.1 Within the Primary Sector & Utilities there were 9,600 SSVs, including 2,000 in Electricity, gas, steam and air conditioning supply and 1,000 in Waste collection, treatment and disposal activities; materials recovery.

4.2.2 10% of businesses had at least one SSV in 2022. This is an increase compared to the 2017 figure of 6%, and the 3% reported in 2011.

4.2.3 The density of SSVs (i.e. the proportion of all vacancies that were SSVs) was 36% in 2022 – up from 24% in 2017.

4.2.4 Within the Primary Sector & Utilities, 28% of all vacancies were SSVs – a reduction from the 33% in 2017.

Figure 2: Skill-shortage vacancies as a proportion of all vacancies (SSV density) for (i) all sectors and (ii) Primary Sector & Utilities – 2011 to 2022

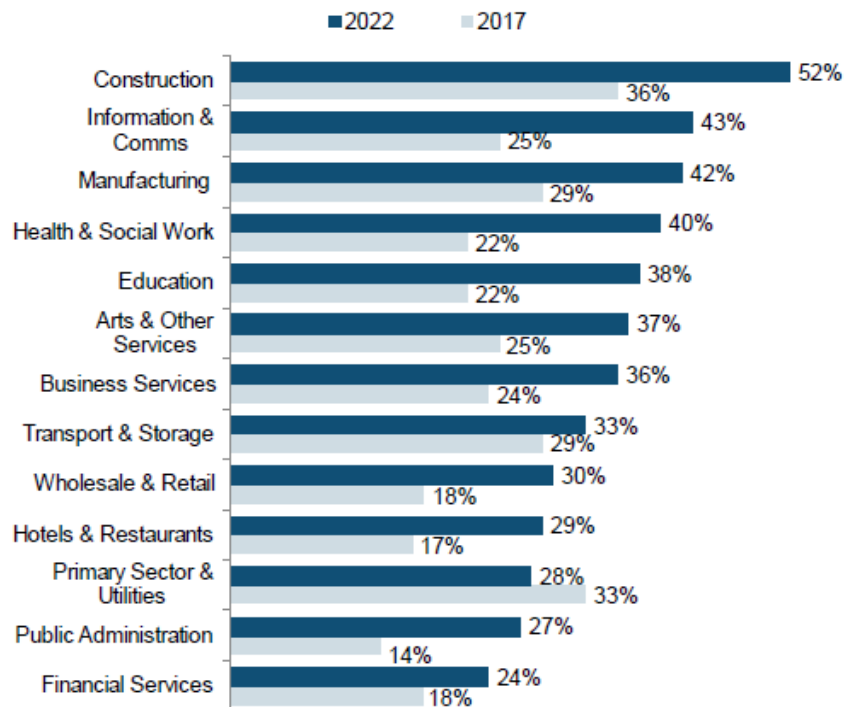


4.2.5 As the chart above shows, the proportion of vacancies that are SSVs, both across the economy as a whole and within the Primary Sector & Utilities, has been on an upward trajectory since 2011 (with the exception of the latest data for Primary Sector & Utilities).

4.2.6 The highest density of SSVs was found in Construction (52%). This was followed by Information and Communications sector (43%) and Manufacturing sector (42%).

4.2.7 Primary Sector & Utilities was the only sector where the density of SSVs fell in comparison to 2017.

Figure 3: Skill-shortage vacancies as a proportion of all vacancies (SSV density) at UK level, by sector



4.2.8 The density of SSVs in industries relating to the energy and utilities sector was generally lower than the figure for all sectors – from a low of 16% within waste & recycling, to a high of 39% in civil engineering. 27% of vacancies within the electricity and gas industry were SSVs, while data is not published for the water industry.

Figure 4: Skill-shortage vacancy density (SSVs as a share of vacancies) by selected industries

Industry	2022
Electricity, gas, steam and air conditioning supply	27%
Water collection, treatment and supply	*
Sewerage	*
Waste collection, treatment and disposal activities; materials recovery	16%
Civil engineering	39%
<b>All sectors</b>	<b>36%</b>

\* Data is suppressed due to a small sample size

### 4.3 By occupation

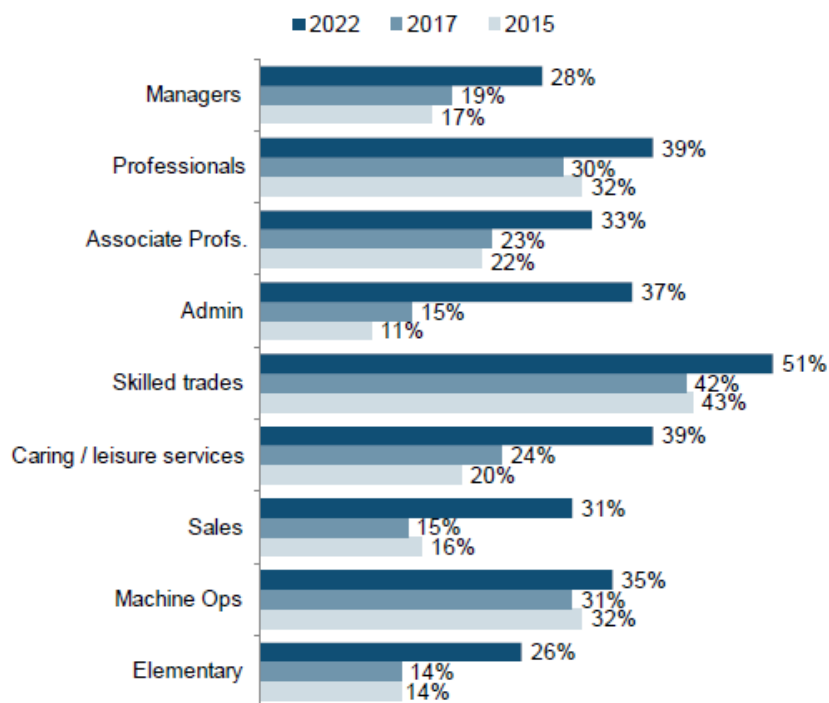
4.3.1 Looking at occupations, employers were most likely to have experienced skills-related difficulties when recruiting for Skilled Trades positions (51% of all vacancies in this occupation were SSVs).



4.3.2 Glaziers, window fabricators and fitters had the highest density of SSVs (71%), followed by metal machining setters and setter-operators (69%).

4.3.3 Skilled Trades had the highest density of SSVs across the last three ESS surveys (51% in 2022, 42% in 2017 and 43% in 2015).

Figure 5: Density of skill-shortage vacancies (SSVs) at UK level, by occupation



4.3.4 The Skilled Trades category, while the second smallest of the nine occupational groupings in terms of number of employees, was the fourth largest for number of vacancies and the second largest for number of SSVs (94,700).

4.3.5 The largest increase in SSV density was among Administrative occupations, from 14% in 2017 to 37% in 2022. Conversely, the smallest increase was among Machine Operatives, from 31% to 35%.

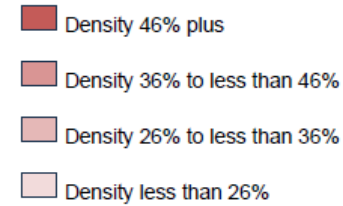
4.3.6 The figure below shows the density of SSVs by occupation *within* each sector. Care should be taken with this data, as some of the cells have relatively small base sizes.

4.3.7 Within the Primary Sector & Utilities, SSVs were primarily felt within:

- Associate Professionals (42%)
  - E.g. Electrical/Electronic, Engineering, Civil Engineering and Laboratory Technicians; Water Tester; Estimator; Buyer/Procurement Officer
- Skilled Trades occupations (37%)
  - E.g. Welder; Pipe Fitter; Mechanical Engineer; Heating/ Air Conditioning Engineer/Installer; Electrical/ Electronic/ Maintenance Fitter; Electrician; Cable Jointer; Telecoms Engineer; Overhead Linesworker

- Professionals (31%)
  - E.g. Chemical/ Biological/ Physical/ Environmental Scientist; Legal/ Regulatory Professional; Quantity Surveyor; Project Manager
- Elementary occupations (31%)
  - E.g. Electrician's Mate; Fitter's Mate; Ground Worker; Labourer; Refuse Collector; Refuse Disposal Operative

Figure 6: Density of skill-shortage vacancies at UK level, by occupation within sector



Survey group	Total	Skilled Trades	Caring, Leisure and Other Services	Professionals	Administrative occupations	Machine Operatives	Associate Professionals	Sales and Customer Services	Managers	Elementary occupations
Total	36%	52%	39%	39%	37%	35%	33%	31%	28%	26%
Construction	52%	61%	**	52%	25%	52%	35%	43%*	39%	48%
Information and Communications	43%	72%	**	46%	15%	**	42%	38%	**	**
Manufacturing	42%	55%	**	56%	35%	32%	41%	54%	40%	33%
Health and Social Work	40%	27%	38%	35%	61%	25%*	29%	93%	33%	13%
Education	38%	36%	48%	32%	27%	47%*	36%	**	31%	18%
Arts and Other Services	37%	49%	44%	46%	19%	33%*	36%	30%	25%	31%
Business Services	36%	48%	29%	44%	37%	42%	31%	45%	32%	31%
Transport and Storage	33%	48%	**	**	30%	40%	31%	40%	6%*	14%
Wholesale and Retail	30%	60%	**	38%	24%	30%	43%	21%	24%	23%
Hotels and Restaurants	29%	44%	30%	**	35%	10%	36%	23%	42%	25%
Primary Sector and Utilities	28%	37%	19%*	31%*	24%	21%	42%	**	21%*	31%
Public Administration	27%	**	**	41%	31%	**	17%	**	**	**
Financial Services	24%	**	**	**	48%	**	44%	16%*	**	**

\*\* Denotes a low base size (fewer than 30 establishments)

## 4.4 Causes of skill shortage vacancies

- 4.4.1 87% of all SSVs were caused, at least in part, by a lack of technical and practical skills (similar to the 88% in 2017).
- 4.4.2 The profile of the specific skills lacking was broadly similar to 2017, with a lack of specialist skills or knowledge the most mentioned (64% in 2017 and 63% in 2022). However, there were some small changes, in particular:
- An increase in a lack of knowledge of how the employer's organisation works (from 31% in 2017 to 36% in 2022)
  - An increase in a lack of knowledge of products and services offered by the organisation (from 36% in 2017 to 40% in 2022)
  - A decrease in a lack of advanced or specialist IT skills (from being a factor for 20% of SSVs in 2017 to 16% in 2022)
- 4.4.3 In 2022, more SSVs were being caused by a lack of broad 'operational skills' (covering knowledge of products and services offered) and the knowledge of how the organisation works (48%, up from 43% in 2017).
- 4.4.4 Conversely, a lower proportion of SSVs in 2022 were reported as being caused by a lack of 'complex analytical skills' (43%, down from 47% in 2017).

- 4.4.5 Employers that reported difficulties in finding applicants with the necessary digital skills were asked about the specific IT skills they found lacking for those applicants.
- Basic Microsoft Office applications skills were the skillset most often lacking (in 32% of cases where IT skills were lacking in applicants, referred to as digital SSVs from now on)
  - foundation digital skills, such as turning on devices, typing, changing passwords and connecting to the internet (22%)
  - specialist software or hardware and internal system skills (18%)
- 4.4.6 Overall, nearly half (48%) of digital SSVs were lacking basic digital skills.
- 4.4.7 For Skilled Trades, 'Digital skills' were less likely to be lacking compared to the average (23% of Skilled Trade SSVs vs. 32% of SSVs on average), as were 'sales and customer skills' (29% vs. 40%).
- 4.4.8 The one category that was more likely to be lacking for Skilled Trades were 'complex analytical skills' (49% vs. 43% on average).

## 4.5 What employers with SSVs look for when recruiting

- 4.5.1 The factor that was most commonly identified by businesses as being of significant or critical importance when recruiting was relevant work experience (62%).

4.5.2 This was followed by:

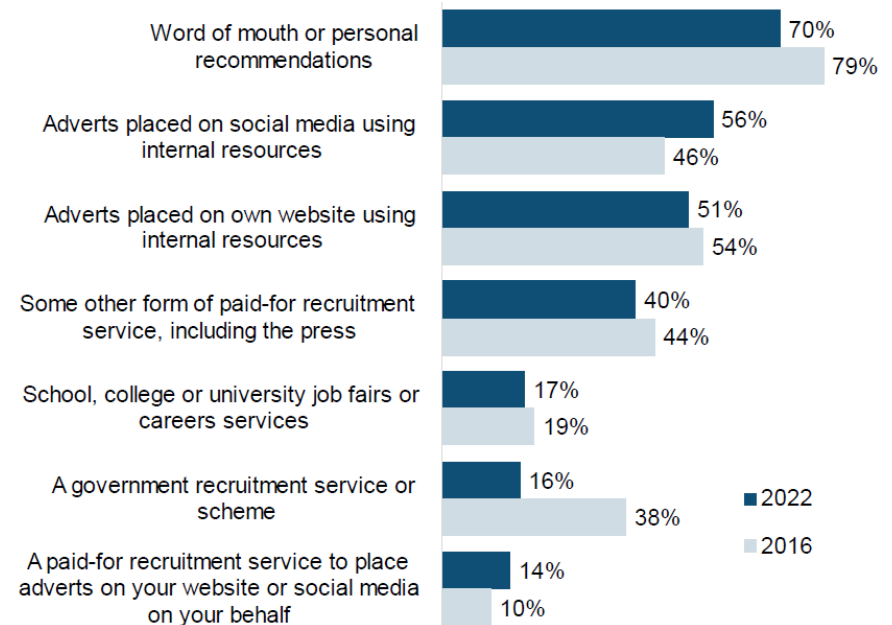
- Maths and English to at least GCSE A\* - C or equivalent in England, Northern Ireland and Wales, or Nationals level equivalent in Scotland (47%)
- Vocational qualifications (43%)
- Academic qualifications (38%)
- A degree or degree equivalent qualification (18%)

## 4.6 Recruitment methods

4.6.1 Employers with vacancies were asked what methods they had used in the last 12 months to recruit new staff.

4.6.2 The recruitment methods used in 2022 and 2016 were broadly similar, however there were some notable shifts compared with 2016. Employers were less likely than 2016 to use any external resources (11 percentage point decrease), but more likely to use any social media or internal resources only (both 10 percentage point increases).

Figure 7: Recruitment methods used in the last 12 months



4.6.3 Smaller business were more likely to have taken a single approach, with over a third (35%) of those with 2 to 4 employees utilising a single approach, compared to 5% of those with 250 or more employees.

4.6.4 Smaller employers with 2 to 4 employees were also more likely to have relied on internal resources (47%) or used word of mouth only (21%) than those with 250 or more employees (16% and 1% respectively).

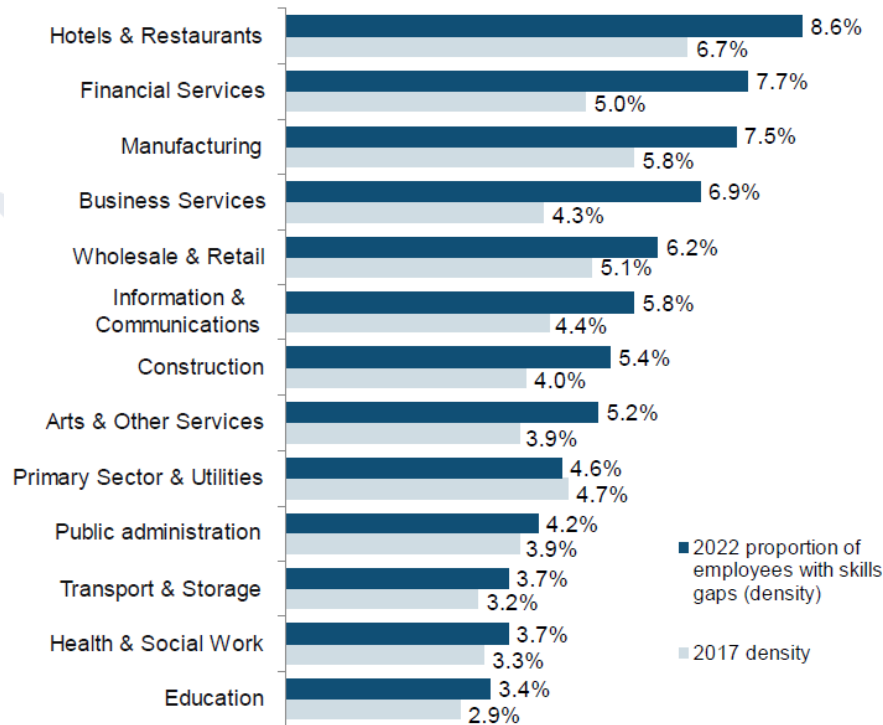
4.6.5 On the other hand, those with 250 or more employees were more likely to have used any social media (83%) or any external resource (84%) than those with 2 to 4 employees (48% and 46% respectively).

4.6.6 Businesses in the Primary Sector and Utilities were most likely to have used a single approach (36%), as well as to have relied on word of mouth only (22%).

## 5 Skills gaps

- 5.1.1 This chapter explores the prevalence and impact of skills gaps within the current UK workforce, i.e., the extent to which employers have staff that are not fully proficient in their job role. The measure is a binary one and does not measure how close or not the identified staff are to being proficient.
- 5.1.2 Skills gaps can occur as a consequence of recruitment difficulties, for example with employers not being able to find and recruit fully skilled applicants in the labour market, although they may also choose to take on those not fully skilled for a role to train them to the organisation's way of working.
- 5.1.3 Skills gaps can also arise from a variety of other reasons such as the skills needed within an organisation changing. Some skills gaps may be temporary by nature, 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 affect a business' productivity, profitability, and ability to innovate.
- 5.1.4 It should be noted that the survey can only capture the skills gaps that employers are aware of. Arguably, employers that pay little attention to their employees' and organisations' skill needs may be less likely to report skills gaps. Some commentators have termed these 'latent skill gaps'.
- 5.1.5 Overall, the majority of employers (85%) considered their workforce to be fully proficient: 15% reported they have at least one member of staff not fully proficient at their job, an increase from 13% in 2017. This is in contrast with the downward trend in the incidence of skills gaps between 2011 and 2017.
- 5.1.6 Skills gaps density (the proportion of the workforce lacking full proficiency) has also increased from 4.4% in 2017 to 5.7% in 2022. This marks the first time since the UK-wide ESS began in 2011 that results for both measures have increased, after a steady decline in both the incidence and density of skills gaps from 2011 to 2017.
- 5.1.7 Skills gap density within the Primary Sector & Utilities stood at 4.6% in 2022, down slightly from 4.7% in 2017. This is the only sector that experienced a fall in skills gap density between these years.

Figure 8: Density of skills gaps by sector (2017-2022)



5.1.8 Skills gaps within the Primary Sector & Utilities were more likely (excluding Caring, Leisure & Other Services) amongst Skilled Trades (8.3% of the workforce judged not fully proficient) and Sales & Customer Services (7.9%).

Figure 9: Density of skills gaps by occupation within sector

Legend:

- Density 10% and over
- Density 7% to 9.9%
- Density 4.5% to 6.9%
- Density less than 4.5%

Survey group	Total	Elementary occupations	Sales and Customer Services	Skilled Trades	Machine Operatives	Administrative occupations	Associate Professionals	Caring, Leisure and Other Services	Professionals	Managers, Directors, and Senior Officials
Total	5.8%	9.2%	8.0%	7.4%	6.2%	5.1%	5.0%	4.7%	4.4%	2.5%
Hotels and Restaurants	8.6%	11.0%	10.1%	7.1%	4.9%	6.0%	4.5%	7.6%	4.5%	3.5%
Financial Services	7.7%	37.0%*	12.8%	14.4%*	**	9.9%	5.5%	**	2.0%	4.8%
Manufacturing	7.5%	9.0%	9.5%	7.5%	9.2%	4.0%	8.3%	6.8%*	10.1%	2.7%
Business Services	6.9%	11.0%	12.9%	9.3%	6.2%	5.0%	5.7%	6.4%	6.6%	2.2%
Wholesale and Retail	6.2%	10.4%	7.0%	7.2%	6.1%	4.2%	5.7%	3.8%	3.2%	2.8%
Information and Communications	5.8%	2.6%	5.9%	8.9%	3.9%	6.9%	4.1%	**	6.1%	5.0%
Construction	5.4%	7.7%	6.3%	8.4%	6.1%	4.6%	4.2%	**	10.0%	1.6%
Arts and Other Services	5.2%	9.2%	6.4%	5.7%	6.5%	4.0%	3.8%	6.4%	3.7%	1.5%
Primary Sector and Utilities	4.6%	6.8%	7.9%	8.3%	4.5%	2.6%	1.0%	14.8%	3.9%	1.5%
Public Administration	4.2%	3.3%	1.4%	4.2%	2.0%	3.8%	5.3%	6.1%	5.6%	2.5%
Transport and Storage	3.7%	6.1%	5.2%	3.6%	3.2%	4.5%	3.5%	3.6%*	3.1%	2.1%
Health & Social Work	3.7%	3.0%	4.9%	2.6%	1.2%	5.9%	4.2%	4.6%	1.5%	1.6%
Education	3.4%	4.3%	4.6%	4.5%	1.7%	4.9%	4.4%	3.6%	2.7%	1.8%

5.1.9 Water collection, treatment and supply is the only energy and utilities industry that experienced a higher density of skills gaps than the national average, with 5.8% of employees judged not fully proficient). In Sewerage, the figure was just 2.3%.

Figure 10: Skill gap density (the proportion of employees judged not fully proficient)

Industry	2022
Electricity, gas, steam and air conditioning supply	2.7%
Water collection, treatment and supply	5.8%
Sewerage	2.3%
Waste collection, treatment and disposal activities; materials recovery	3.3%
Civil engineering	4.8%
<b>All sectors</b>	<b>5.7%</b>



## 6 Training and workforce development

6.1.1 Training the workforce is one way in which employers can address skill shortages and skills gaps, enabling them to improve productivity. This chapter explores the training landscape in 2022 and how this has changed over time.

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

- **Off-the-job training:** training beyond that which takes place on-the-job or as part of an individual's normal work duties. This can be undertaken at an employer's premises, at a provider, at home or elsewhere.
- **On-the-job training:** training undertaken at the individual's work position and covering activities that would be recognised as training by staff, rather than learning by experience which can take place all the time.

6.1.3 Employers may provide one or both of these types of training.

## 6.2 Incidence of training and workforce development

6.2.1 Overall, 60% of employers had funded or arranged any training over the previous 12 months for any employees on the payroll of their site. This is a decrease compared to previous years in the ESS series (since 2011), where around two-thirds (65% to 66%) of employers had provided training for staff.

6.2.2 The proportion of employers providing training in the previous 12 months increases with establishment size, ranging from less than half (45%) of employers with 2 to 4 employees to almost all (94%) of those with 250 or more employees.

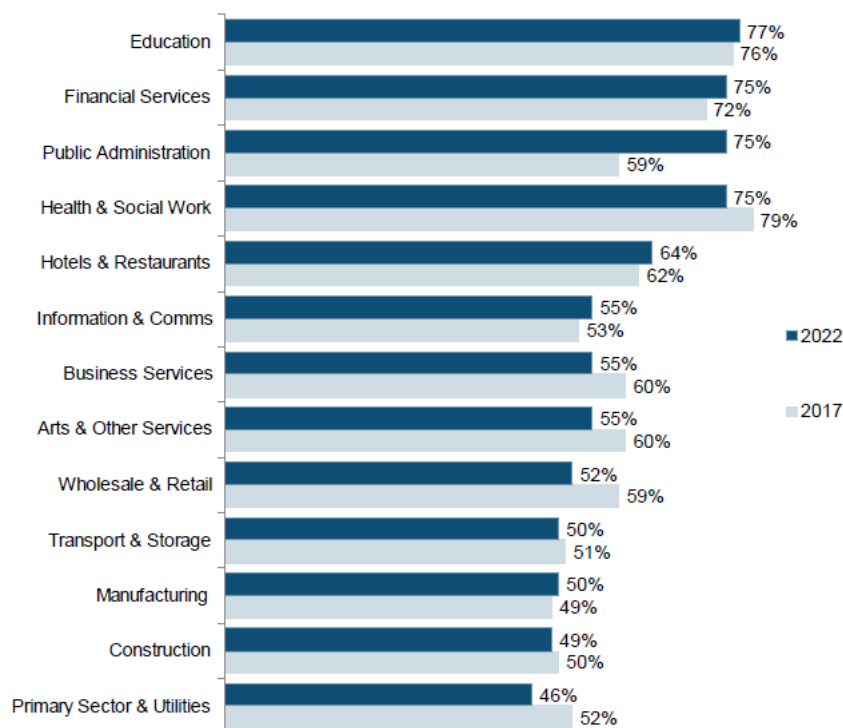
6.2.3 By sector, employers in the Education (87%), Public Administration (87%) and Health and Social Work sectors (83%) were most likely to provide training to staff in the last 12 months. Across the public sector generally there was a greater prevalence of training (88% vs. 58% in the private sector).

6.2.4 Training was least common in the Primary Sector and Utilities (47%), and Construction (52%) sectors. It should be noted that these results are partly influenced by the smaller size profile of these sectors; close to three-quarters of establishments in the Primary Sector and Utilities and Construction sectors have between 2 and 4 employees (76% and 72% respectively).

## 6.3 Proportion of staff trained

6.3.1 UK employers had trained a total of 18.2 million staff over the previous 12 months, a 1% increase from the 17.9 million recorded in 2017. However, due to a 5% increase in the size of the total workforce between these years, the proportion of the workforce trained decreased from 62% in 2017 to 60% in 2022.

Figure 11: Proportion of staff trained over the last 12 months by sector (2017-2022)



6.3.2 In the Primary Sector and Utilities, 46% of staff were trained in 2022; down from 52% in 2017. This is the largest decrease recorded of any sector over this time period.

## 6.4 Training days

6.4.1 Overall, employers provided an average of 6.0 training days per annum per person trained and 3.6 days per employee.

6.4.2 In the Primary Sector and Utilities, employers provided an average of 7.4 training days per annum per person trained ('per trainee') (only Hotels and Restaurants provided more training per trainee, at 7.5) and 3.4 days per employee.

Figure 12: Average number of training days per person trained and per employee – all sectors, Primary Sector and Utilities and selected industries related to the energy and utilities sector

Industry	Training days per person trained	Training days per employee
Electricity, gas, steam and air conditioning supply	2.6	1.7
Water collection, treatment and supply	1.3	0.7
Sewerage	10.3	2.5
Waste collection, treatment and disposal activities; materials recovery	6.1	3.1
Civil engineering	4.3	2.4
Primary Sector and Utilities	7.4	3.4
<b>All sectors</b>	<b>6.0</b>	<b>3.6</b>

- 6.4.3 In selected industries related to the energy and utilities sector, the number of training days per person trained varied substantially – from 10.3 days per person trained within Sewerage, down to just 1.3 days in Water collection, treatment and supply.
- 6.4.4 The number of training days per employee also varied substantially – from 3.1 in Waste collection, treatment and disposal activities; materials recovery, down to just 0.7 days in Water collection, treatment and supply.
- 6.4.5 However, it should be noted that there is no obvious reason why these data for Water collection, treatment and supply are significantly lower than other industries or the Primary Sector and Utilities as a whole.

## 6.5 Types of training offered

- 6.5.1 Employers were asked about the types of training that they had funded or arranged during 2022.
- 6.5.2 Of the seven categories of training listed in the survey, the Primary Sector and Utilities lagged behind the national average in six of them – Health & safety/first aid training being the exception.

Figure 13: Types of training funded or arranged for employees

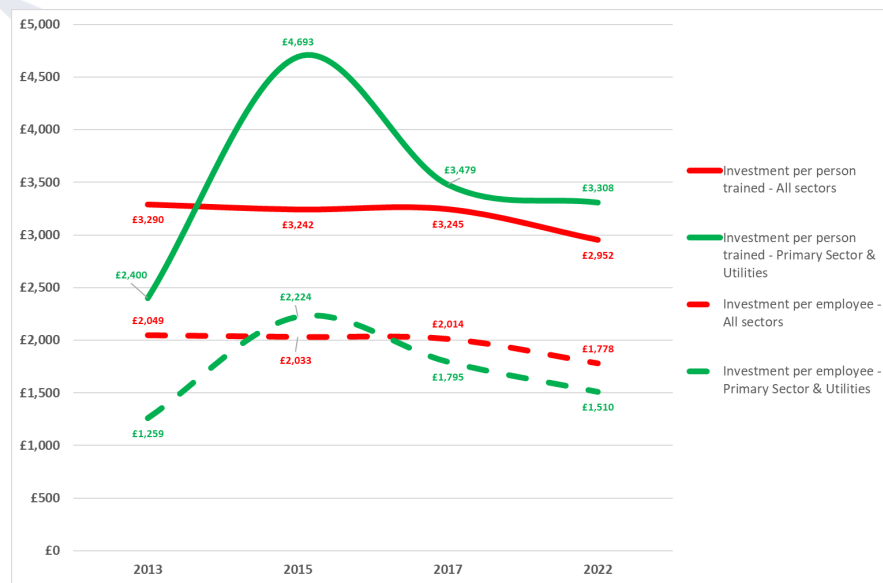
Type of training	Primary Sector and Utilities	All sectors
Job-specific training	80%	84%
Health & safety/first aid training	72%	71%
Basic induction training new staff receive when they start the job	46%	64%
Training in new technology	39%	46%
More extensive induction training for new staff	22%	37%
Supervisory training	20%	33%
Management training	18%	32%

## 6.6 Investment in training

- 6.6.1 Total employer expenditure on training and development over the previous 12 months was £53.6 billion – down from £58.1 billion in 2017.
- 6.6.2 £1.2 billion of this was in the Primary Sector and Utilities – down from £1.4 billion in 2017.
- 6.6.3 Training spend **per person trained** remains higher in the Primary Sector and Utilities sector (£3,300 per person trained – down from £3,500 in 2017) than the national average (£3,000 per person trained – down from £3,200 in 2017).

6.6.4 However, training spend **per employee** remains lower in the Primary Sector and Utilities (£1,500 per employee – down from £1,800 in 2017) than the national average (£1,800 per employee – down from £2,000 in 2017).

Figure 14: Investment per person trained and per employee – All sectors and Primary Sector and Utilities (2013 to 2022)



6.6.5 In a reversal of the national average, 53% of expenditure in the Primary Sector and Utilities was on off-the-job training, while 47% was on on-the-job training.

6.6.6 While nationally wages of trainees accounted for 56% of total training expenditure, within the Primary Sector and Utilities this accounted for just 41% - the lowest of any sector.

6.6.7 The Primary Sector and Utilities recorded the highest percentage of “Other costs” of any sector, at 33% (compared to the national average of 20% (other costs exclude the wages of trainees, the wages of trainers and fees to external providers)).

## 6.7 Apprenticeships

6.7.1 At the time of interview, 19% of all employers either had apprentices at their site (11%) or offered apprenticeships but did not have any currently (8%).

6.7.2 Within Primary Sector and Utilities, just 10% of employers either had apprentices at their site (4%) or offered apprenticeships but did not have any currently (6%).

6.7.3 Both of these figures are broadly unchanged from 2016.

6.7.4 By sector, Hotels and Restaurants and Manufacturing were most likely to expect an increase in apprenticeship numbers over the next two years (49% and 43% respectively).

6.7.5 Of those employers that do offer apprenticeships, 48% of those in the Primary Sector and Utilities had done so for more than 10 years, compared to the national average of just 30%.

6.7.6 37% of all employers who have current apprentices and plan to continue offering Apprenticeships said they expect to increase apprentice numbers over the next two years. However, just 23% of Primary Sector and Utilities employers said the same – the lowest proportion of any sector.

6.7.7 Just 1% of Primary Sector and Utilities employers said they expect apprentice numbers to decrease over the next two years (the joint lowest of any sector) – compared to 5% of all employers.

6.7.8 69% of Primary Sector and Utilities employers said they expect apprentice numbers to remain unchanged over the next two years (the highest of any sector).

## 7 Conclusions

### Vacancies

7.1.2 Businesses in the Primary Sector & Utilities were less likely to have had vacancies in 2022 (12%) than the UK average (23%), and slightly less likely to have reported that any of those vacancies were proving hard-to-fill for any reason (53%, compared to 57%).

### Skills shortages

7.1.3 Despite the proportion of all UK vacancies that were skills shortage vacancies (SSVs) increasing to a record high of 36% in 2022, the proportion of vacancies in the Primary Sector & Utilities that were SSVs actually fell to 28% in 2022 (from a high of 33% in 2017) – making it the only sector of the UK economy where the density of SSVs reduced.

7.1.4 Skills shortage were highest amongst the Skilled Trades occupational group (51% of all vacancies) – this is an occupation that is crucial to the success of the energy and utilities sector.

7.1.5 For Skilled Trades, ‘Digital skills’ were less likely to be lacking compared to the average (23% of Skilled Trade SSVs, compared to 32% of SSVs on average); as were ‘sales and customer skills’ (29%, compared to 40%).

7.1.6 However, the one skill category that was more likely to be lacking for Skilled Trades were ‘complex analytical skills’ (49%, compared to 43% on average).

7.1.7 Nearly two-thirds of businesses (62%) cited work experience as being of significant or critical importance when recruiting – stressing the importance of solutions that enable work experience to be gained, especially by younger people.

7.1.8 When it comes to the methods used to recruit new employees, across the UK word of mouth/personal recommendations is still by far the most common approach (used by 70% of employers). This is followed by social media via in-house resources (56%) and adverts placed on own website (51%).

7.1.9 Businesses in the Primary Sector and Utilities were most likely to have used a single approach (36%), as well as to have relied on word of mouth only (22%).

7.1.10 This, perhaps, demonstrates the need to employers in the energy and utilities sector to broaden their use of recruitment methods, especially at a time when skills shortages are increasing at a national level (albeit skills shortages do appear to have reduced in the Primary Sector and Utilities over the past couple of years).

### Skills gaps

7.1.11 Skills gaps, where members of the current workforce are not fully proficient, are less prevalent in the Primary Sector and Utilities compared to the UK average – 4.6% of the workforce lacked full proficiency, compared to 5.7% across the UK as a whole.

7.1.12 Furthermore, the Primary Sector & Utilities is the only sector that experienced a fall in skills gaps since the last survey (4.6% in 2022, compared to 4.7% in 2017).

7.1.13 Where skills gaps did exist within the Primary Sector & Utilities, they were more likely to be amongst Skilled Trades (8.3% of the workforce lacked full proficiency) and within Water collection, treatment and supply (5.8% of employees judged not fully proficient).

### **Training and workforce development**

7.1.14 Businesses in the Primary Sector and Utilities were the least likely to report funding or arranging any training or development for their workforce over the previous 12 months – 47% compared to 60% of all UK businesses (although this estimate will be influenced by the relatively large number of smaller businesses in the sample, which tend to be less likely overall to fund or arrange training).

7.1.15 This resulted in just 46% of the Primary Sector and Utilities workforce receiving training over the previous 12 months (down from 52% in 2017) – the lowest of any sector in 2022 and the largest decrease of any sector since 2017.

7.1.16 However, the number of training days delivered within the Primary Sector and Utilities, in terms of days per person trained, was higher than the national average – 7.4 days, compared to 6.0 days.

7.1.17 Furthermore, the training spend per person trained is higher in the Primary Sector and Utilities sector (£3,300 per person trained – down from £3,500 in 2017) than the national average (£3,000 per person trained – down from £3,200 in 2017).

7.1.18 This suggests that businesses in the Primary Sector and Utilities target their training at a relatively small section of the workforce – training a smaller proportion of the workforce, but delivering a relatively high number of training days per person trained.

7.1.19 The only area of training that businesses in the Primary Sector and Utilities delivered more of than the national average was, perhaps unsurprisingly, Health & safety/first aid training (72% of employers stated they arranged this type of training, compared to the national average of 71%).

7.1.20 Across all other types of training (job-specific training; basic induction training new staff receive when they start the job; training in new technology; more extensive induction training for new staff; supervisory training; and management training), the Primary Sector and Utilities lagged behind the national average.

### **Apprenticeships**

7.1.21 The proportion of businesses in the Primary Sector and Utilities that either had or offered apprenticeships is low – 10% of businesses, compared to 19% nationally.

7.1.22 Furthermore, where apprenticeships are currently offered, just 23% of businesses in the Primary Sector and Utilities expected the number of apprentices to increase over the next two years, compared to 37% nationally.

7.1.23 On a positive note, just 1% of Primary Sector and Utilities businesses expected the number of apprentices to decrease, compared to a national average of 5%.

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