

RESEARCH REPORT

Skills and Training in the Construction Industry 2021

A low-angle, upward-looking photograph of a modern building's exterior. The building features a complex, geometric design with large, dark-framed glass panels and white structural elements. The sky is a clear, vibrant blue with some light, wispy clouds. The perspective creates a sense of height and architectural grandeur.

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Study prepared by Harlow Consulting Ltd from a commission by CITB.

The views expressed by research participants are their own and do not necessarily represent those of their employers.

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1. Executive Summary

Introduction

In June 2021 CITB commissioned Harlow Consulting to carry out the Skills and Training Survey. The survey broadly replicates similar surveys carried out in 2018, 2016, 2014, 2011 and 2009. The survey explores skill needs and training practices amongst both self-employed individuals and employers working in the construction industry across the UK.

A total of 1218 interviews was achieved, 1,092 with employers and 126 with self-employed individuals.

A target was set of a minimum 100 interviews in each of the home nations Scotland, Wales and Northern Ireland. In addition to this the survey was monitored to ensure representation of employers and self-employed individuals across the nine English government office regions.

The survey achieved 100 interviews with respondents based in Scotland, 102 in Northern Ireland and 103 in Wales.

At the analysis stage, the data was weighted to accurately represent the total population of construction businesses in the UK. The employer (2+ employee establishments) and self-employed samples were weighted separately. Further details on the weighting process can be found in appendix 1 of this report.

Industry structure

Just under half (47%) of surveyed businesses with employees, employ fewer than ten staff, while around a quarter (27%) employ between 10 and 24 staff, around a sixth (16%) of businesses employ between 25 and 99 staff, while 10% employ over a hundred.

Output constraints

The most significant factor currently limiting sales and output is a shortage of materials and equipment, regardless of whether self-employed, a business with employees, or whether in construction or professional services.

Of employers, 59% identify a shortage of materials and equipment compared with 35% of self-employed individuals: this is the most frequently identified factor amongst both groups.

This is a marked difference to 2018 at 20% and close to 0% in 2016.

The second and third most common factors are labour shortages (32%) and insufficient demand/uncertainty in the economy (26%).

These results contrast markedly with 2018, where as many as 49% of businesses with employees and 56% of those without did not identify any constraints on their business. In the 2021 survey, the proportion was just 5% (for both construction and professional services businesses).

In terms of anticipated constraints over the next 12 months, a shortage of materials and equipment is still the greatest concern for employers (57%) and for the self-employed (35%). Employers identified labour shortages as their second concern (33%), followed by insufficient demand or uncertainty in the economy. For the self-employed, insufficient demand or uncertainty in the economy was the second factor identified (29%), followed by 'nothing' (14%).

Again, this picture is markedly different to 2018 and 2016, where the proportion of businesses identifying shortages of materials or equipment was negligible. Labour shortages and demand issues were the top factors in 2016 and 2018.

Skill gaps

In 2021 over a third (34%) of employers suggested they have skills gaps, compared with 14% in 2018 and 20% in 2016.

Employers in the construction sector were slightly less likely to identify skills gaps (33%) than those in professional services (37%).

Of self-employed individuals, only 8% suggest that they have any skills gaps. The remainder regard themselves as 'fully proficient'. The proportions are equal amongst those in construction businesses and professional services. This compares with 19% of self-employed individuals admitting they have skills gaps in 2018.

The most frequently cited area identified as lacking in terms of skills was 'job-specific/trade skills', identified by 42% of employers who cited any skills gaps. The second most common gap was 'Qualifications (NVQ)', cited by 23% of employers.

When asked about the impact of skills gaps, employers tended to be more positive about this than previously, with 46% of all businesses with employees suggesting there was no impact on their business. This compares with 36% of businesses in 2018. In 2021, 37% of business report a minor impact and 17% a major impact; in 2018 the figures were 45% and 19%, respectively.

The cause of skills gaps cited by most employers in both 2021 and 2018 is that staff are still in training - 59% of employers in 2021, compared with 38% in 2018. The second most common cause is that staff lack experience, or they have been recently recruited (26%) this was also the second most common cause given in 2018, by 35% of employers.

The majority of employers in response to skills gaps have increased training activity or spend or are increasing or expanding their trainee programmes (56%). This compares with 73% of businesses in 2018. The second most common response is increasing recruitment activity or spend (39%) or more supervision of staff (34%).

Among drivers of new skills and knowledge, the factor predicted to have the biggest impact is an increase in competitive pressure (36%); this compares with 34% in 2018 and 33% in 2016. The biggest factor in the two previous years was new legislative or regulatory requirements (57% in 2018, and 60% in 2016). In 2021, this factor was identified by 34% of all employers.

In 2021, a new option was added to the survey of 'increasing use of Modern Methods of Construction (MMC) in our business'. Fifteen per cent of businesses with direct employees identified this as a driver, and 7% of the self-employed.

Amongst construction businesses the trade most likely affected by the drivers of change is 'labourers and general operatives' (33%), followed by 'carpenters/joiners' (18%). In 2018, employers also identified labourers and carpenters in the three occupations most likely to be affected.

Amongst professional services, architects are most likely to be affected (23%), followed by project managers (18%). This compares with 17% of employers identifying architects in 2018.

When asked which skills they predicted would be needed as a response to the drivers they had identified employers identified trade specific or technical skills as their greatest need (66%), followed by legislation and regulations (50%). These figures are substantially higher than in 2018 when 27% of employers identifying legislation (the factor identified by most employers) and 27% identifying trade or technical skills. Despite the proportions identifying each of these skills being much higher in 2021, the same skills appear in the top three in both surveys.

Trends in training

New questions for 2021 asked respondents if they had planned training in the past two years, and if that training was carried out. Around half (51%) of all employers had planned to undertake any training and, 96% had carried out planned training.

In 2021 42% of employers had carried out training, considerably less than the 2018 figure of 67%. This is at least in part due to the pandemic shifting employer priorities to more immediate concerns and the fact that some staff were furloughed.

The fall in employers carrying out off the job training was even more marked, 59% in 2018 to 26% in 2021.

On the job training fell from 47% in 2018 to 36% in 2021

On average, employers provided each person trained with 8 days off-the-job training in 2021. This continues the rising trend from 6 days in 2016, and 7 days in 2018.

The survey asked employers who offer training if they formally assess whether the training and development impacts on trainees' performance. Overall, in 2021, just over three quarters (77%) state that they assess training in this way, compared to 50% in 2018 and 61% in 2016.

Training is most likely to be provided by private training providers (77%) or 'on the job' (70%), these figures were practically the same in 2018. Training through an industry federation/body has fallen from 36% in 2018 to 27% in 2021.

The proportion of businesses that have funded NVQs fell drastically in 2021, with only 19% providing NVQs compared with 44% in 2018. This may be due to the impacts of the pandemic, with assessors not being able to access sites. Changes to apprenticeships may also be a factor, with new qualifications replacing NVQs.

Employers who funded or arranged training were asked if there were any barriers to them offering more training; 68% of respondents to this question suggested that their staff are full proficient. Other responses were that employees are too busy (13%) or that managers lacked the time to organise training (11%).

Apprenticeship

The slight upward trend in the employment of apprentices has continued: 27% of employers in the construction sector employed apprentices in 2021 compared with 24% in 2018 and 23% in 2016.

The most frequently cited reason for offering apprenticeships is business needs, (79%). The second most common response is that the business was contacted by an interested individual or applicant to be an apprentice (12%).

Various reasons are cited for not offering apprenticeships – the most common are: that all staff are fully skilled (35%), the business is too small or there is no need for more staff (34%), or that they prefer to recruit experienced staff (23%).

When it comes to the benefits of apprenticeships, the most common answer is that they allow the business to train people the way they want or mould them to how they do things (74%).

The second most common response is that apprentices improve or maintain skill levels (58%). Larger businesses were more likely to select this option. Conversely, smaller businesses were more likely to say that apprenticeships increase productivity.

The likelihood of offering apprenticeships in future is similar for employers in 2021, 2018 and 2016. In 2021, 30% of employers said they were likely (i.e., very likely or quite likely) to offer apprenticeships in the next 12 months, compared with 28% in 2018 and 33% in 2016.

The Pandemic

A question was added to the 2021 survey to explore the impact of the Covid-19 pandemic. Amongst the self-employed, the most common response was that their business had not experienced any impacts (44%). For employers, the picture is a similar one: 37% suggested the pandemic had no impact on their business.

Of those who did experience an impact, most provided literal responses.

The most common concern expressed was difficulty around supply of materials, which respondents perceive was caused by the pandemic. Supply difficulties stated, focus on increased prices and long lead times or some materials being simply unavailable. Reported consequences of supply difficulties include lower margins, losing work, missing deadlines and being less competitive.

Respondents also reported that the pandemic caused difficulties in accessing both domestic and commercial properties. There were mentions of construction sites being more difficult to access and rules for access changing. Covid-safe ways of working have presented some challenges.

Several employers stated that they had to close their businesses for some time during the pandemic, similarly several self-employed individuals had periods when they were unable to work. There was

considerable variation in the length of business closures, with some businesses closed for a few weeks, others for three months and a handful closed for over a year.

Both employers and self-employed individuals were almost equally divided on what effect the pandemic has had on demand for their services with some facing reduced demand, while others saw business increasing.

2. Background

Aims and objectives

In June 2021 CITB commissioned the Skills and Training Survey. The survey broadly replicates similar surveys carried out in 2018, 2016, 2014, 2011 and 2009. The survey explores skill needs and training practices amongst both self-employed individuals and employers working in the construction industry across the UK.

Scope

The main themes covered by the survey are skill deficiencies and workforce development across the UK construction industry.

Where possible results are benchmarked against 2018 and 2016 results. Other surveys were undertaken too long ago to provide useful comparison.

Methodology

To meet the research aims and objectives a quantitative telephone survey of employers and self-employed individuals currently working in the UK construction industry was undertaken.

A pilot survey was started on 5th August and achieved 202 completions in seven working days. The purpose of the pilot survey was to:

- Test that the wording and routing in the survey is appropriate
- Test new questions/revisions to the 2018 survey
- Familiarise the telephone team in readiness for the roll out of the main survey
- Capture insights and enable reporting on initial findings

Sampling

Inter-Departmental Business Register (IDBR) data was used to inform calculation of quotas, by SIC code and size bands, alongside a quota for self-employed individuals. Size bands used were the same as for previous surveys i.e., 2-9, 10-24, 25-99, and 100+ employees. There was deliberate over-representation of larger businesses to enable comparison with previous surveys. The sample was also stratified according to two broad industry sub-groups, construction and professional services, in a ratio of 79:21.

A total of 1218 interviews was achieved, 1092 with employers and 126 with self-employed individuals (Figure 1).

A target was set of a minimum 100 interviews in each of the home nations Scotland, Wales and Northern Ireland. In addition to this the survey was monitored to ensure representation of employers and self-employed individuals across the nine English government office regions.

The survey achieved 100 interviews with respondents based in Scotland, 102 in Northern Ireland and 103 in Wales.

At the analysis stage, the data was weighted to accurately represent the total population of construction businesses in the UK. The employer (2+ employee establishments) and self-employed samples were weighted separately. Further details on the weighting process can be found in appendix 1 of this report.

Figure 1: Sector and size of employers surveyed

SIC code	Number of employees					Total
	Self employed	2-9	10-24	25-99	100+	
Construction	97	390	222	130	78	820
41 - Construction of buildings	19	124	77	45	38	284
42 - Civil engineering	5	42	18	18	10	88
43 - Specialised construction activities	73	224	127	67	30	448
Professional services	24	121	65	45	31	262
71 - Architectural and engineering activities; technical testing and analysis	24	115	54	34	26	229
74 - Other professional, scientific and technical activities	-	6	11	11	5	33
Total	121	511	287	175	109	1082

Questionnaire design

There were several changes and additions to the questionnaire used in previous years. Clarification was added for some questions including defining some terms e.g., 'hard to fill vacancies'.

New questions were added to the survey to explore:

- The impact of the pandemic
- The effect of the new points-based immigration system
- Any changes to training requirements in response to changing numbers of migrant workers
- Any differences in the training requirements of migrant workers
- Emerging skills needed to support digitisation and digitalisation

Also, changes were made to enable analysis of all in scope businesses by SIC code.

Alterations to the survey are shown in full in Appendix 4.

The survey

The telephone survey started in early September and concluded after seven weeks. Details for each potential respondent were verified on the internet before they were called. Interviews took an average of around 15 minutes each. Where requested, respondents were emailed an explanation of the purpose of the survey before they were interviewed.

Alongside survey data collected, interviewers recorded any other information volunteered by respondents, some of this information is included in the report where relevant to the research objectives.

3. Profile of businesses and workforces

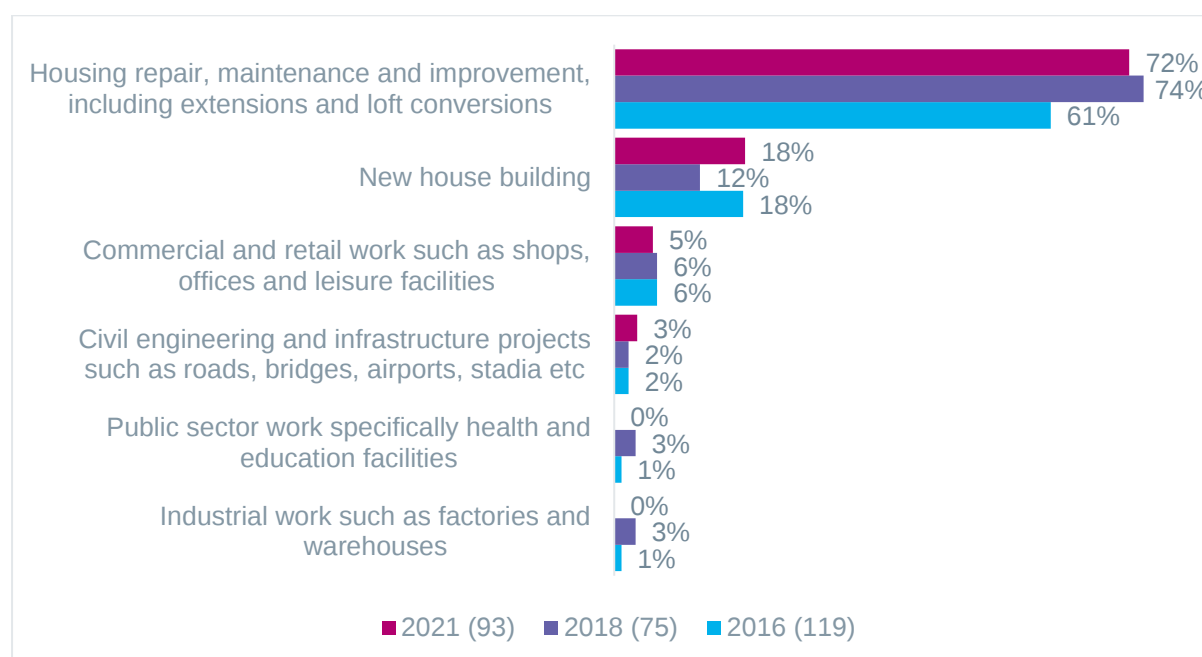
One hundred and twenty-one interviews were carried out with self-employed individuals – i.e., businesses with no direct employees.

Sector profile (self-employed)

The majority of self-employed individuals (80%) operate in the construction sector, with the remaining 20% working within professional services.

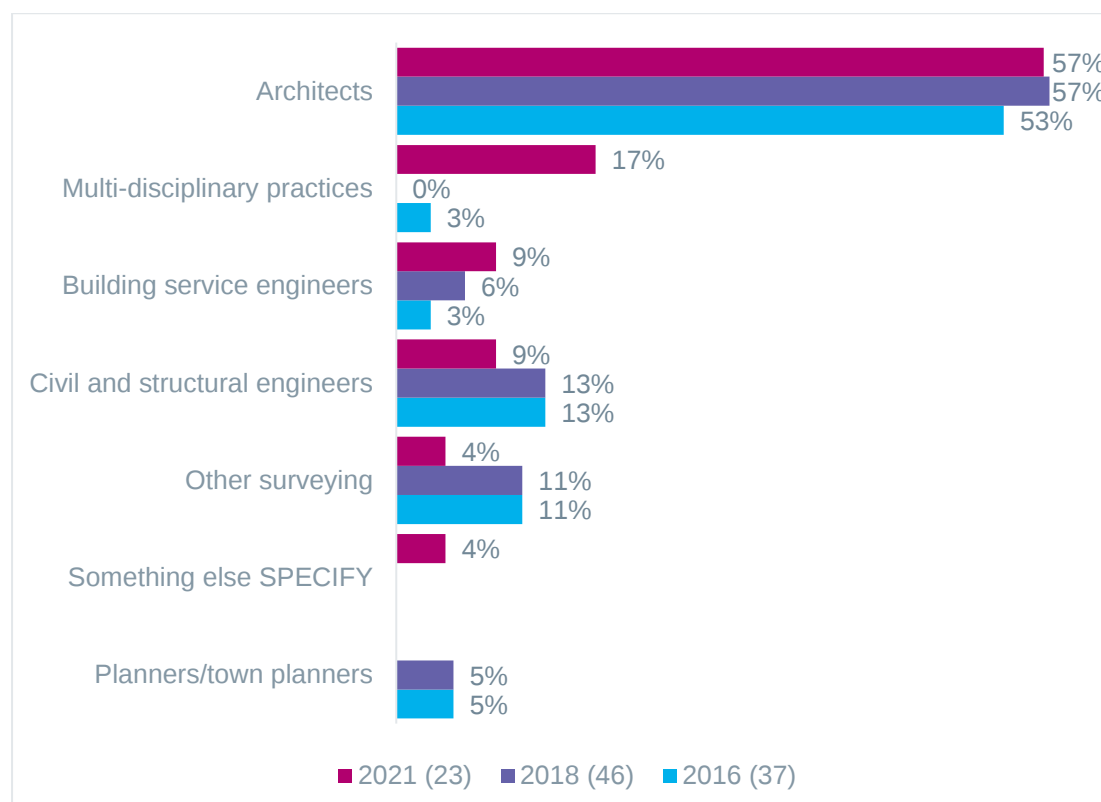
In line with respondents to the 2018 survey, most self-employed individuals in the construction sector work in housing repair, maintenance and improvement (72%) followed by new house building (18%) and commercial and retail work (5%) (Figure 2).

Figure 2: Self-employed individuals' main business area within the construction sector (all self-employed individuals in the construction sector)



Of those who work in the professional services sector, the proportions for 2018 and 2021 employed as architects are equal at (57%) (Figure 3). In contrast to 2018 and 2016, just less than a fifth (17%) work in multi-disciplinary practices. The proportions working in civil and structural engineering (13%) and 'other surveying' (11%) were equal in 2018 and 2016. These were 9% and 4% respectively in 2021. Previous years' surveys did not include a 'something else' option: this is new for 2021. Of the 4% who selected the 'something else' option, only one response was received, which specified 'environmental consultants'.

Figure 3: Self-employed individuals' main business area within the professional services sector



Employment of sub-contractors

Around a fifth (18%) of self-employed individuals work with a contractor, agency staff or other self-employed individuals. This compares with 43% in 2018 and 31% in 2016.

On average, self-employed respondents work with just less than one contractor (0.7), agency staff, or other self-employed person. This compares with an average of 1.4 in 2018.

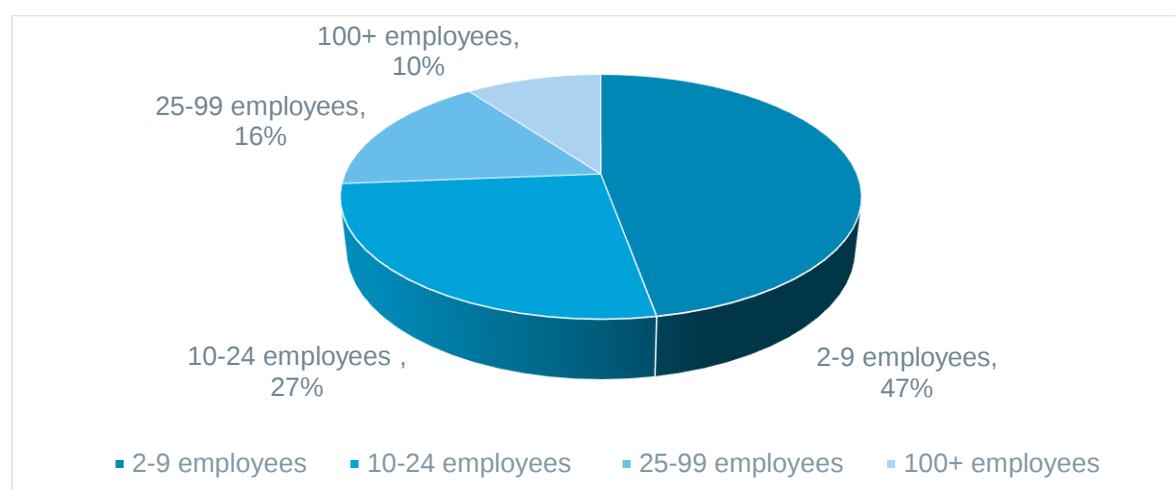
Employers

Size profile

Interviews were conducted with 1,082 businesses with employees (1,082 weighted cases).

The response profile is different from 2018 (Figure 4). Just under half (47%) of surveyed businesses with employees, employ fewer than ten staff – compared with 87% in 2018 - while around a quarter (27%) employ between 10 and 24 staff (9% in 2018); 16% of businesses employ between 25 and 99 staff (4% in 2018), while 10% employ over a hundred (1% in 2018).

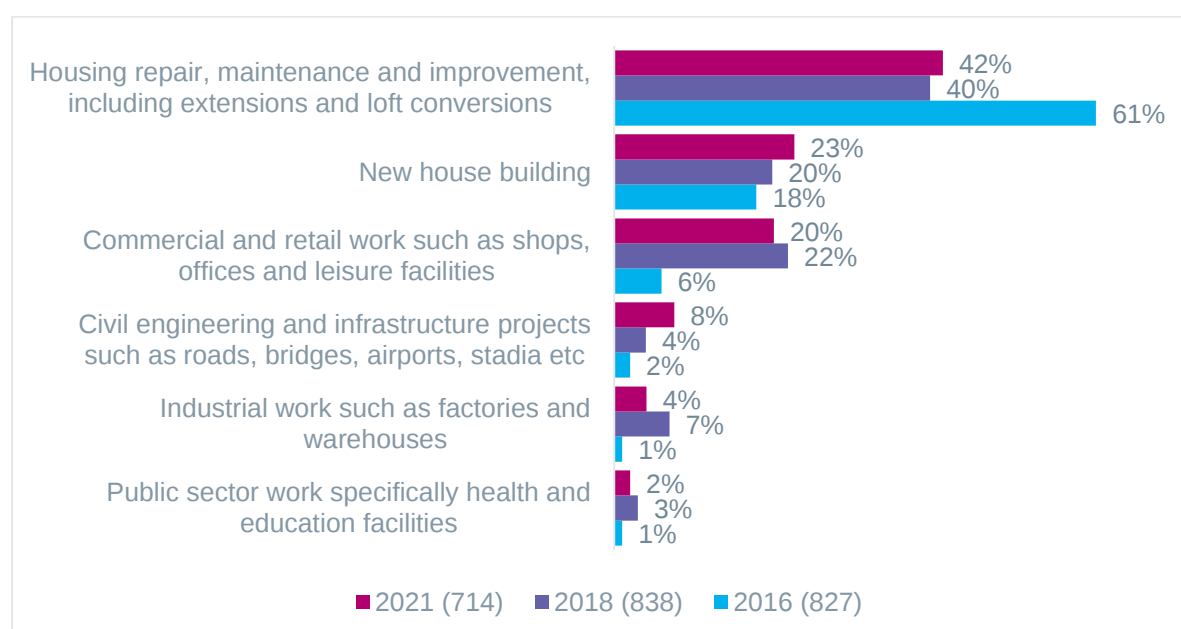
Figure 4: Number of employees at that site (all businesses with employees)



Sector profile

Just over 85% of respondent businesses with employees operate in the construction sector, while 15% operate in professional services. This compares with 74% operating in construction in 2018, and 26% in professional services.

Figure 5: Employers' main business areas within the construction sector (all construction sector businesses with employees)

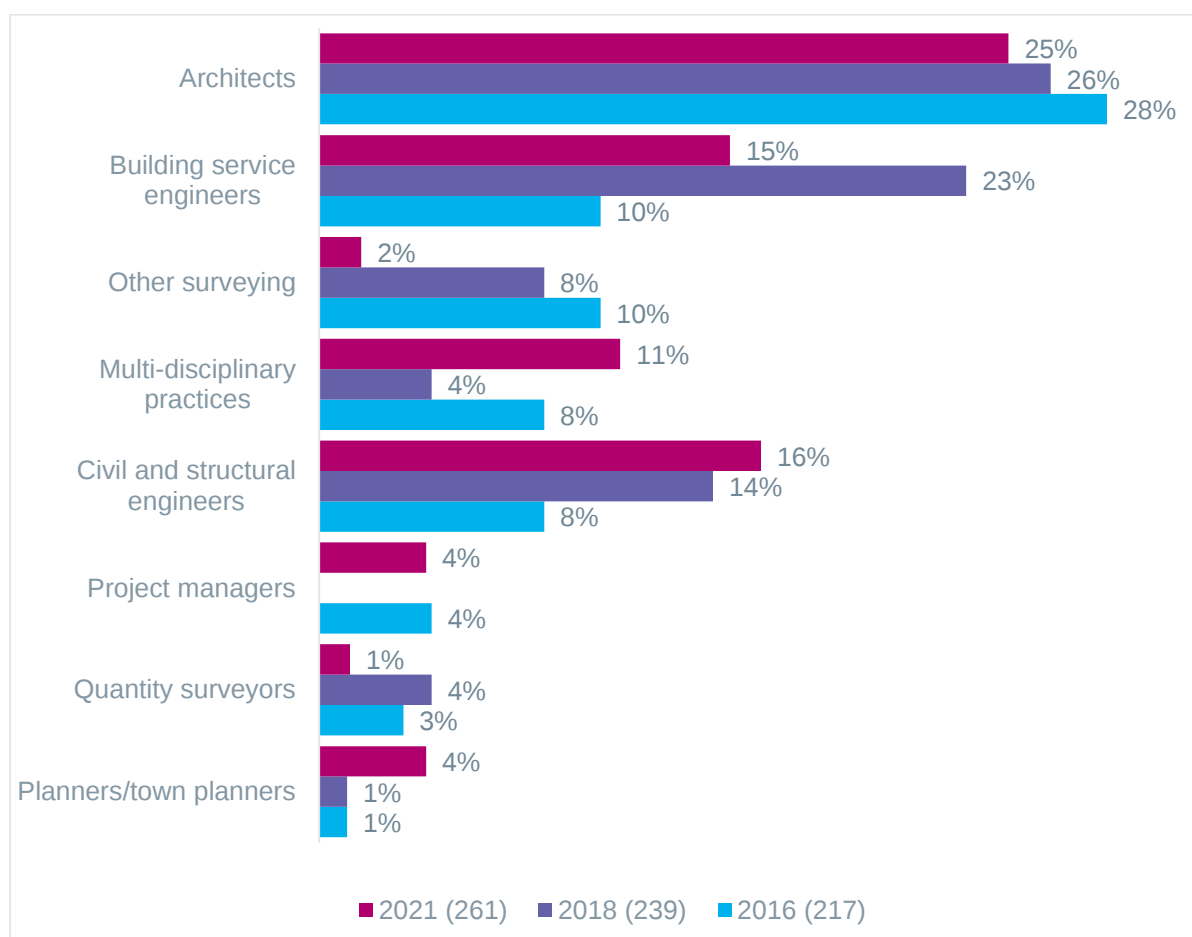


Most employers (42%) work in housing repair, maintenance and improvement, followed by new house building (23%) and commercial and retail work (20%), broadly reflecting the picture in 2018 (Figure 5). This shows a marked decrease since 2016, when 61% worked in housing repair, maintenance and improvement.

In terms of size, smaller businesses (i.e., those up to 49 employees) are more likely to work in new housing house building and housing repair. The largest businesses – with over 100 employees – are most likely to work in industrial work such as factories and warehouses and civil engineering.

Amongst employers, of those who work in professional services businesses, most are architects (25%), civil and structural engineers (16%) or building service engineers (15%) (Figure 6).

Figure 6: Employers' main business areas within the professional services sector (all professional services businesses with employees)



Employment of sub-contractors

Over a third (37%) of employers work with contractors, agency staff or self-employed individuals. Of these employers, most work with between 10-24 people.

Employers working in the construction sector, work with an average of 8.6 (mean) contractors, agency staff or self-employed compared with an average of 3.7 (mean) amongst professional services businesses.

Occupation profile of workforce

The survey asked employers about the occupations employed in their business, self-employed individuals were asked about their own occupations (Figure 7).

The most populous occupational group is 'managers/directors' (46%) followed by 'administrative staff' (40%); this compares with 51% and 50%, respectively, in 2018. The relatively high proportion of these job roles is because both construction businesses and professional businesses and business of nearly all sizes will need managerial and administrative staff.

Amongst the trades, labourers and general operatives are most common (28%) which broadly compares with the 2018 figure of 22%.

Figure 7: Occupational groups employed – prompted, multiple response (all businesses)

	All employers	Construction	Professional services	Self-employed	Construction	Professional services
Carpenters / joiners	13%	17%	*%	17%	20%	4%
Bricklayers	4%	5%	*%	3%	4%	0%
Painters / decorators	6%	8%	*%	12%	14%	4%
Plasterers	6%	7%	*%	13%	17%	0%
Roofers	8%	11%	0%	5%	5%	4%
Floorers	4%	5%	0%	4%	5%	0%
Scaffolders	1%	1%	*%	1%	1%	0%
Plant and machine operatives	6%	7%	*%	2%	2%	0%
Electricians	4%	4%	*%	3%	3%	0%
Plumbers	3%	3%	*%	3%	3%	0%
Labourers and general operatives	28%	34%	1%	12%	13%	4%
Supervisors	6%	7%	*%	0%	0%	0%
Technical staff	7%	7%	1%	1%	1%	0%
Architects	7%	2%	2%	11%	1%	50%
Architectural technologists	2%	1%	*%	0%	0%	0%
Building service engineers	4%	3%	1%	2%	2%	0%
Civil engineers	6%	4%	1%	3%	1%	8%
Mechanical engineers	2%	1%	*%	1%	0%	4%
Other engineers	6%	4%	1%	3%	2%	4%
Town planners	1%	*%	*%	0%	0%	0%
Technicians	2%	1%	1%	0%	0%	0%
Building surveyors	3%	2%	*%	2%	1%	4%
Quantity surveyors	3%	3%	*%	1%	1%	0%
Landscape designers	1%	1%	*%	2%	1%	4%
Project managers	10%	9%	1%	0%	0%	0%
Scientists	*%	0%	*%	0%	0%	0%
Managers/directors	46%	48%	4%	2%	1%	4%
HR, legal and business professionals	18%	18%	2%	0%	0%	0%
Administrative staff	40%	37%	5%	0%	0%	0%

Staff with no one main role or who multitask	5%	6%	0%	2%	1%	4%
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In construction businesses, labourers and general operatives are the most common role (34%), followed by carpenters (17%) and roofers (11%). In professional services businesses, architects are the most commonly employed occupation (50%).

4. Output constraints

Current constraints

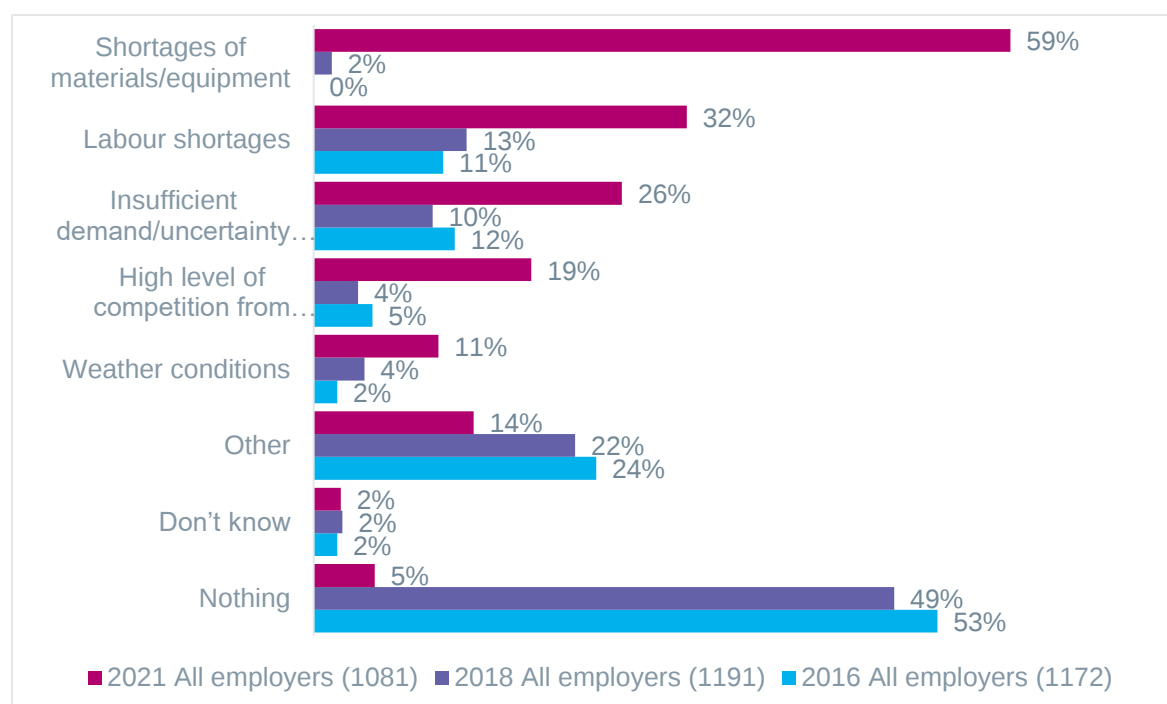
The most significant factor currently limiting sales and output is a shortage of materials and equipment, regardless of whether self-employed, a business with employees, or whether in construction or professional services.

Of employers, 59% identify a shortage of materials and equipment compared with 35% of self-employed individuals: this is the most frequently identified factor amongst both groups.

The second and third most common factors for employers are labour shortages (32%) and insufficient demand/uncertainty in the economy (26%) (Figure 8). Only a small proportion of employers (5%) did not identify any output constraints at all.

These results compare very differently with 2018 and 2016, where as many as 49% and 53% of businesses with employees did not identify any constraints on their business. This year (2021), the proportion identifying 'nothing' was just 5% (for both construction and professional services businesses).

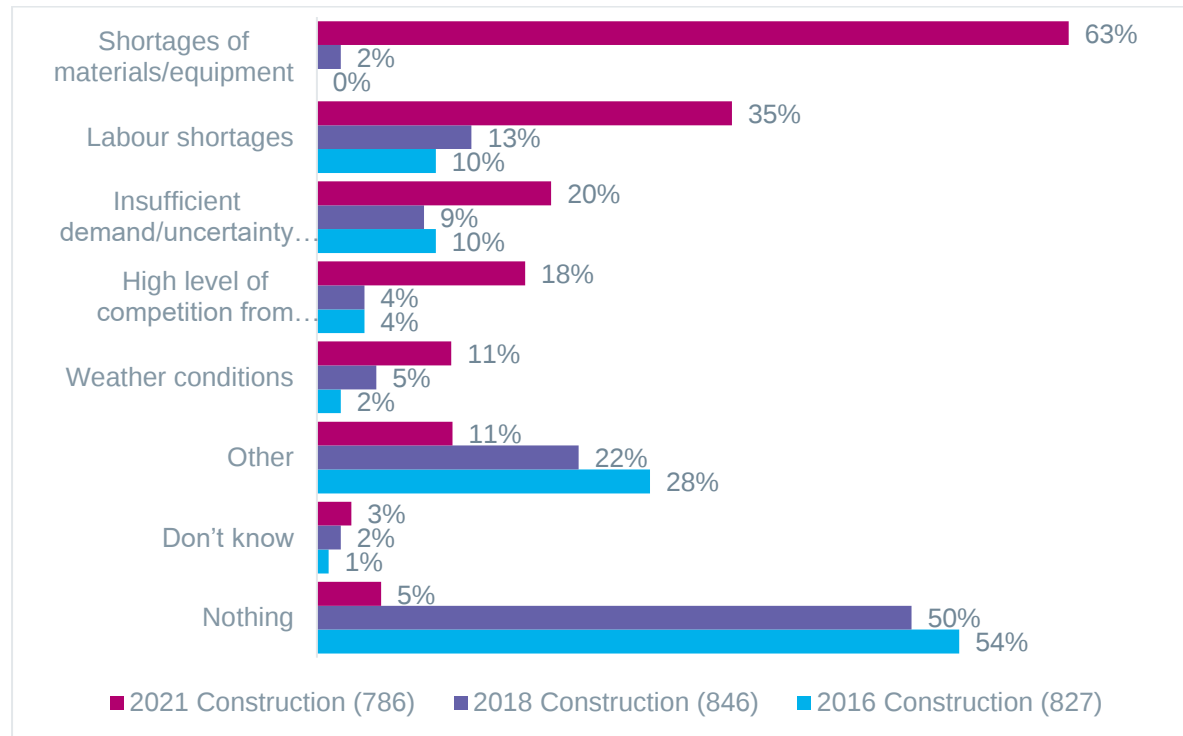
Figure 8: Factors that are currently limiting sales and output (all businesses with employees) 2016, 2018, 2021



Amongst construction businesses, shortages of materials/equipment is the greatest concern (63%), followed by labour shortages (35%) (

Figure 9).

Figure 9: Factors that are currently limiting sales and output, (construction businesses with employees) 2016, 2018, 2021



For professional services businesses, the factor identified by most employers is also shortages of materials/equipment (49%) followed by insufficient demand or uncertainty (43%) (Figure 10)Figure 10

Figure 10: Factors that are currently limiting sales and output, (Professional services businesses with employees) 2016, 2018, 2021

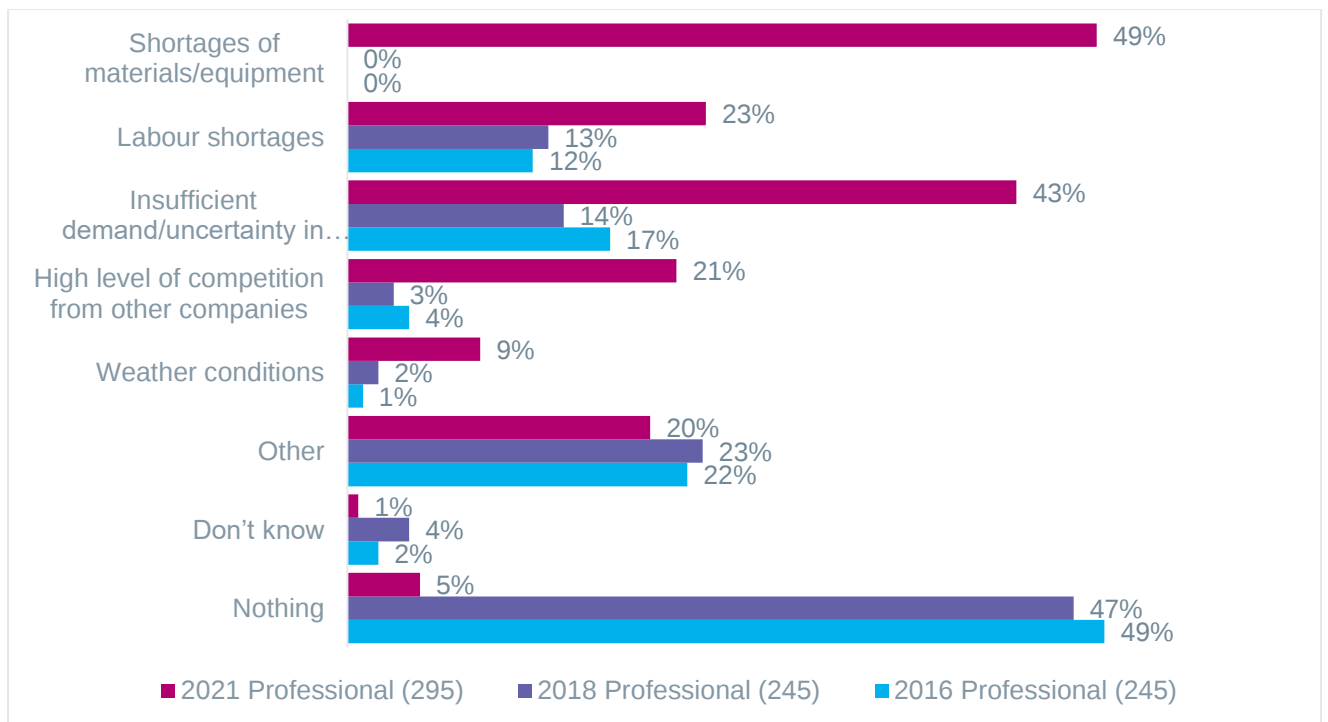


Figure 11: Factors that are currently limiting sales and output, by region (businesses with employees)

	All employers	England	Scotland	Northern Ireland	Wales	East Midlands	East of England	London	North East	North West	South East	South West	West Midlands	Yorkshire and Humber
Column percentages														
Shortages of materials /equipment	59%	61%	54%	42%	52%	51%	74%	60%	48%	57%	66%	61%	53%	55%
Labour shortages	32%	32%	28%	31%	42%	29%	28%	35%	27%	42%	21%	46%	27%	30%
Insufficient demand/uncertainty in the economy	26%	27%	26%	17%	13%	24%	34%	23%	12%	35%	15%	41%	28%	34%
High level of competition from other companies	19%	20%	12%	11%	12%	24%	16%	29%	40%	16%	8%	28%	13%	16%
Weather conditions	11%	11%	3%	8%	8%	18%	12%	18%	8%	13%	8%	9%	1%	8%
Political situation in Northern Ireland – lack of a devolved government/ Stormont stalemate	0%	0%	0%	9%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Other	14%	13%	17%	26%	15%	4%	14%	10%	30%	20%	14%	15%	6%	10%
Nothing	5%	5%	7%	6%	4%	6%	4%	1%	2%	3%	5%	10%	9%	10%
Don't know	2%	0%	0%	5%	0%	1%	0%	8%	2%	3%	0%	1%	3%	1%

Shortages of materials/equipment is the factor of most concern to employers in each of the four nations, with more employers in England (61%) identifying this factor than in the other nations (Figure 11). In Northern Ireland 9% of employers identified the political situation as currently limiting their sales and output. Across the English regions, the pattern of responses is similar, with more employers in the South East (66%) identifying shortages of materials/equipment than elsewhere. In the South West, the North West and Wales, the highest proportions of respondents (over 40%) identified labour shortages as a current concern.

Respondents who stated that 'nothing' was limiting their business were asked to elaborate.

Most commonly, employers simply stated they were busy or very busy. Several employers said they were expanding, with some attributing this to the pandemic, other reasons for expansion included growth in renewables and a buoyant commercial property development sector.

Some employers, while stating their businesses were unconstrained, meant this in the context that they were not planning to expand, and that they have enough work for the business at its current size. One micro employer (a civil engineering firm in the North West) said, "*we're small enough to avoid issues*".

Employers' predictions of future constraints were focussed on the availability of skills, and the cost of materials and labour.

There were twelve self-employed individuals who gave 'other' reasons' that might limit their businesses, half of these spoke of concerns about health issues or plans to retire, others had concerns about the pandemic or cost of materials.

Self-employed individuals who reported no constraints to their businesses most commonly expanded on this by saying they have enough work to keep their one -person businesses busy. A couple said that the pandemic had increased business.

Employers who stated 'other' factors limiting their businesses went on to give some detail; the pandemic and particularly difficulty accessing premises was the predominant factor stated. Cost of raw materials was also high on the list of limiting factors. Other factors mentioned include a general shortage of staff, including HGV drivers, and a shortage of development land.

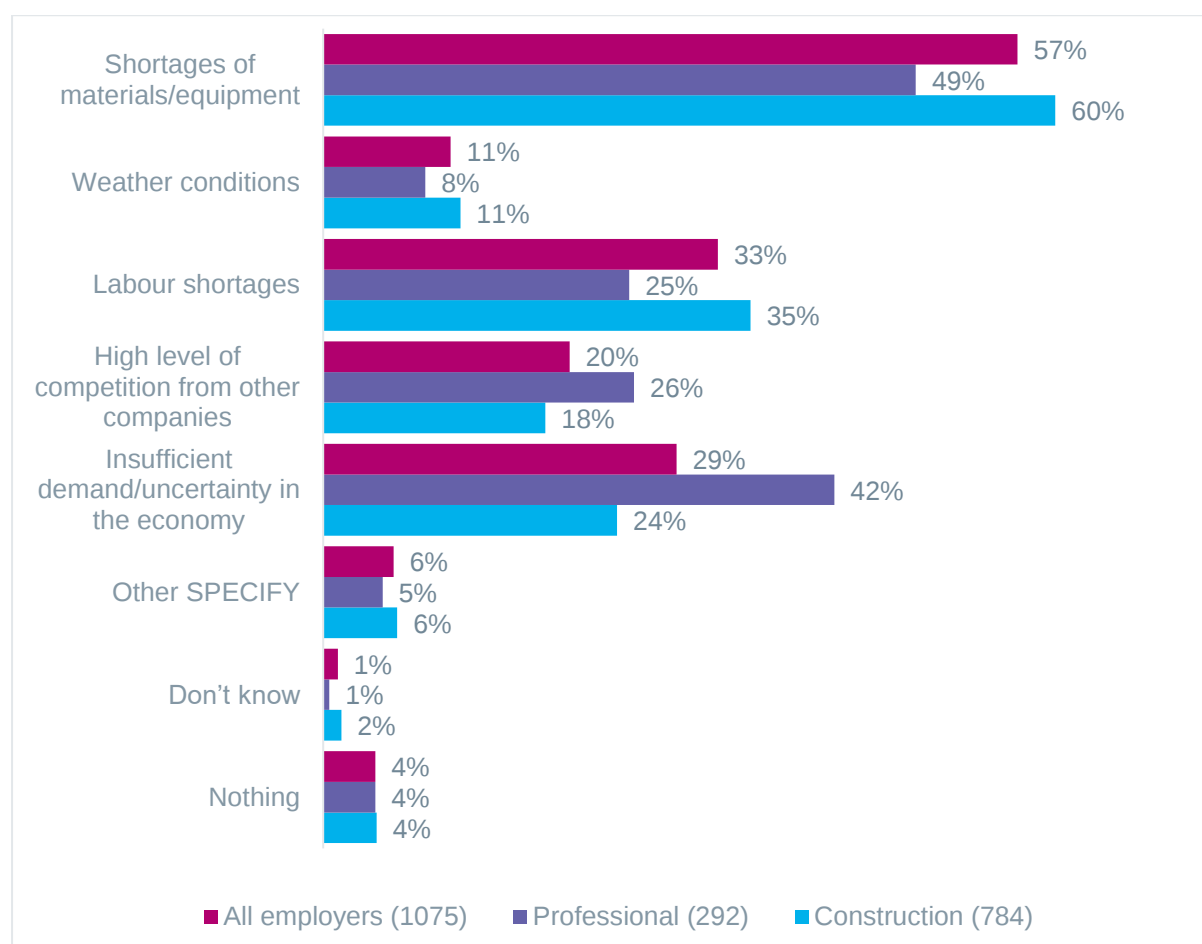
Anticipated constraints

Looking ahead over the next 12 months, a shortage of material and equipment is still the greatest concern for employers (57%) and for the self-employed (35%). Employers identified labour shortages as their second concern (33%), followed by insufficient demand or uncertainty in the economy. For the self-employed, insufficient demand or uncertainty in the economy was the second factor identified (29%, followed by 'nothing' (14%).

Again, this picture is markedly different from 2018 and 2016, where the proportion of businesses identifying shortages of materials or equipment was negligible. Labour shortages and demand issues were the top factors in 2016 and 2018.

The situation is slightly different between construction and professional services businesses (Figure 12). A shortage of equipment is a greater concern to construction businesses (60%) compared with professional services (49%). The biggest differential between business types is with regard to 'insufficient demand/uncertainty': 42% of professional services businesses identify this as a factor, compared with 24% of construction businesses.

Figure 12: Factors that businesses expect to limit sales and output in the next 12 months, by sector (businesses with employees)



When examined by nation, the results are quite variable (Figure 13). For example, a shortage of materials/equipment is most frequently identified by businesses in the East of England (74%), this compares with 41% of businesses in the North East. When comparing on a national basis, more employers in England identify materials shortages (58%) compared with Scotland (55%), Wales (53%) and Northern Ireland (53%). Concerns about labour shortages also differ by country, with this being of most concern to employers in Wales (44%), followed by Northern Ireland (34%), England (32%), and Scotland (29%).

Competition from other companies does not appear to be a significant concern except amongst employers in England (22%), particularly amongst those in the North East (42%).

Figure 13: Factors that businesses expect to limit sales and output, by region (businesses with employees)

	England	Scotland	Wales	Northern Ireland	East Midlands	East of England	London	North East	North West	South East	South West	West Midlands	Yorkshire and Humber
Column percentages													
Insufficient demand/uncertainty in the economy	30%	30%	13%	20%	27%	27%	31%	16%	36%	21%	41%	37%	35%
High level of competition from other companies	22%	13%	13%	12%	26%	28%	31%	42%	13%	8%	28%	12%	15%
Labour shortages	32%	29%	44%	34%	29%	28%	33%	28%	42%	21%	52%	33%	30%
Weather conditions	11%	3%	9%	9%	19%	11%	18%	7%	13%	8%	9%	0%	8%
Shortages of materials/equipment	58%	55%	53%	53%	50%	74%	58%	41%	54%	61%	61%	43%	56%
Political situation in Northern Ireland –lack of a devolved government/Stormont stalemate	0%	0%	0%	9%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Other SPECIFY	5%	12%	4%	21%	4%	1%	5%	4%	4%	9%	5%	3%	8%
Nothing	4%	5%	3%	6%	5%	5%	1%	2%	4%	4%	8%	5%	9%
Don't know	0%	1%	0%	1%	1%	0%	3%	0%	3%	1%	1%	2%	1%

Trends in employment

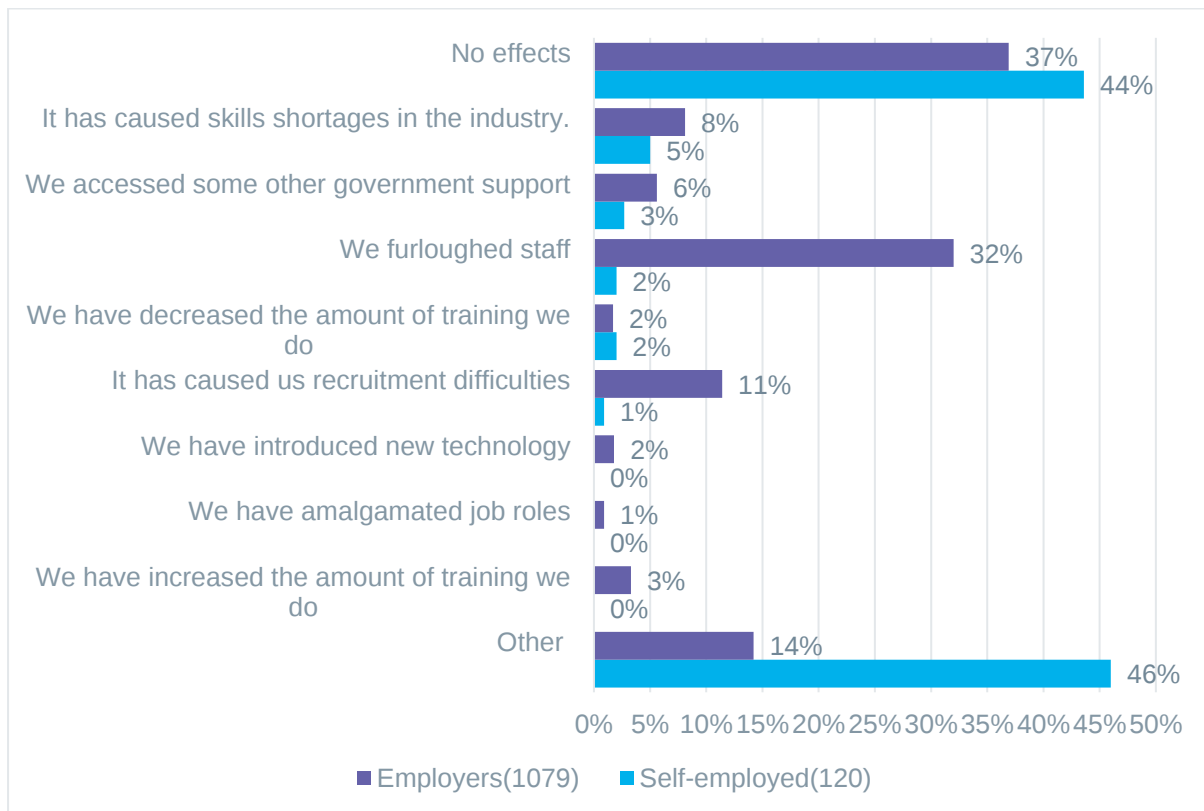
The Covid pandemic

A new question was added to the survey in 2021 to explore any impacts of the Covid-19 pandemic (Figure 14).

Amongst the self-employed, the most common response was that their business had not experienced any impacts (44%). Of those who did experience an impact, most provided 'other' responses (46%). Analysis of these responses is included on pages 29-31.

For employers, the picture is a similar one: 37% suggested the pandemic had no impact on their business.

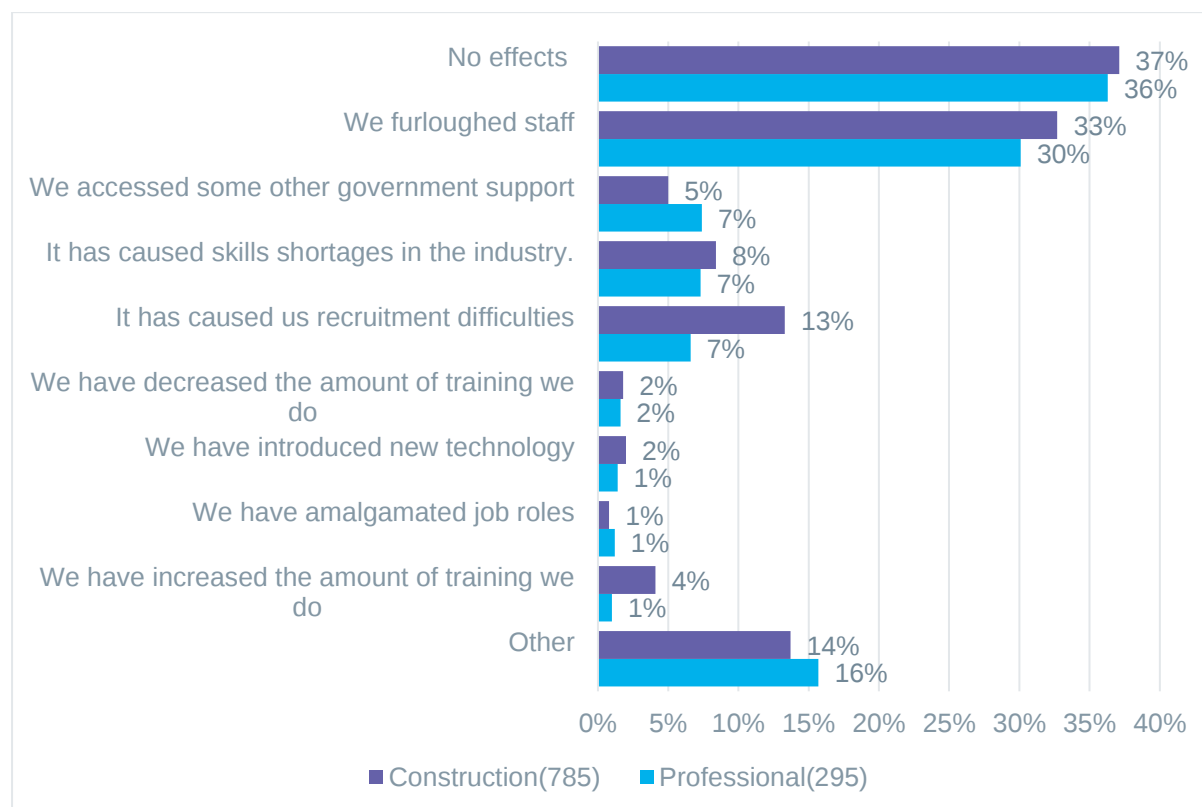
Figure 14: Effects of the pandemic (all businesses)



The response profile is similar for employers in the construction and professional services sectors, with 37% and 36% respectively identifying no impact (

Figure 15). Where employers did identify an impact, the most common response was that they had furloughed staff (32% of all employers) (Figure 14), with 11% stating that the pandemic had caused the business recruitment difficulties.

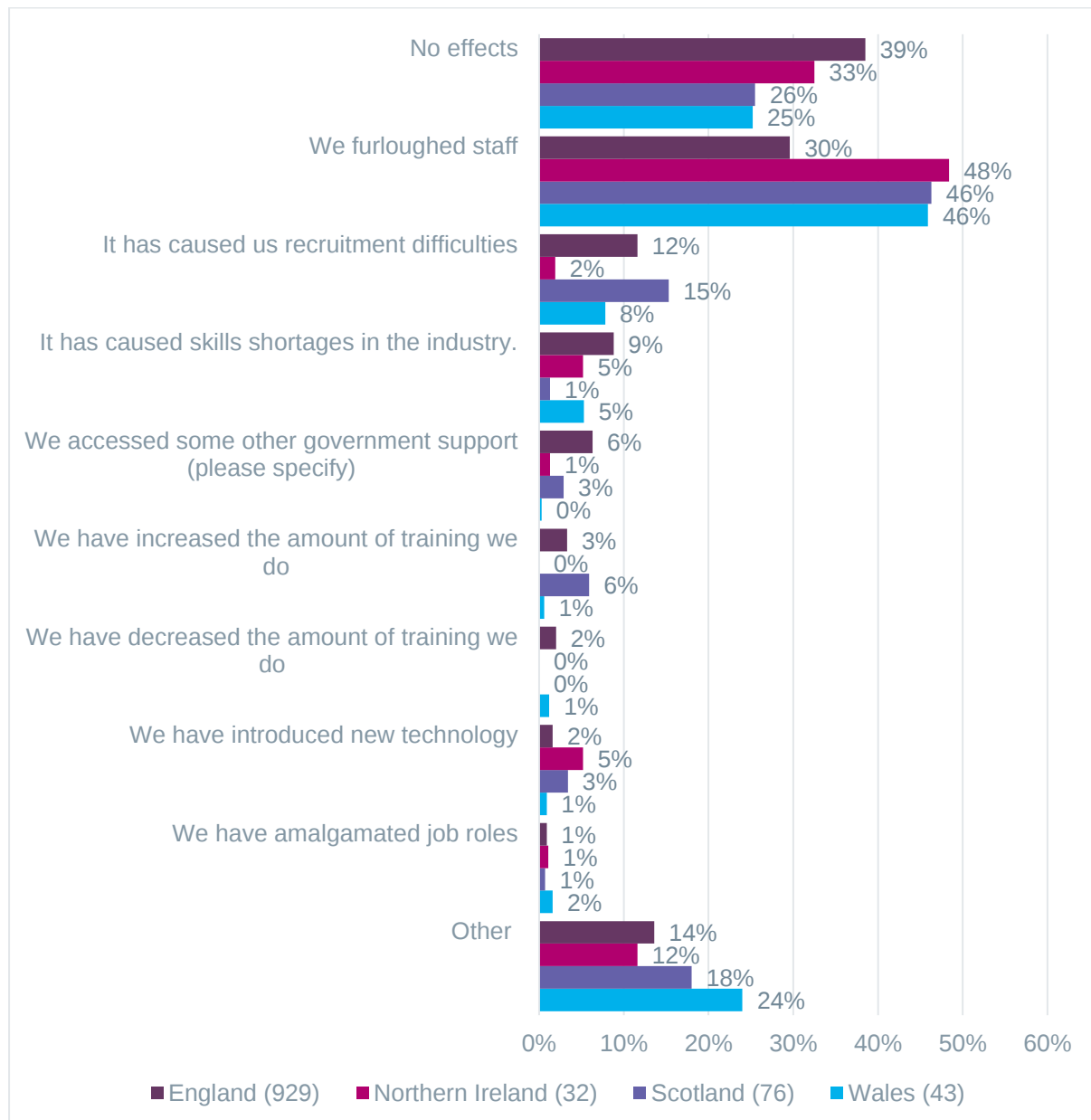
Figure 15: Effects of the pandemic (construction and professional services)



A further 14% suggested the pandemic had 'other' impacts.

Employers in England were more likely to state that the pandemic had no impact. More employers in Northern Ireland, Wales and Scotland furloughed staff than in England (Figure 16).

Figure 16: Effects of the pandemic (nations)



Over 200 respondents to this question detailed other effects of the pandemic.

The most common concern was difficulty around supply of materials, which respondents perceive was caused by the pandemic. Supply difficulties stated focus on increased prices and long lead times or some materials being simply unavailable. Reported consequences of supply difficulties include lower margins, losing work, missing deadlines and being less competitive. Respondents gave examples of price rises for materials, these included bags of plaster more than doubling in price, timber costs increasing by 60% and timber for a 'standard house' increasing by £2,000, fixings increasing by 16% and steel doubling in price.

Respondents reported that the pandemic caused difficulties in accessing both domestic and commercial properties. There were a few mentions of construction sites being more difficult to access and rules for access changing. Covid-safe ways of working have presented some challenges.

“Covid regulations require new practices on site. Pre-job videos, lateral flow tests every four days, teaming up of workers into bubbles as some jobs need two individuals working side by side.”

Micro Civil engineer, South-East

One respondent found it necessary to furlough apprentices who were too young to drive because they had a policy of not sharing transport.

Several employers stated that they had to close their businesses for some time during the pandemic, similarly several self-employed individuals had periods when they were unable to work. There was considerable variation in the length of business closures, with some businesses closed for a few weeks, others for 3 months and a handful closed for over a year. Businesses with longer closures tend to be specialists in sectors which were particularly difficult to access, were not trading during the pandemic or were trading at a reduced level e.g., care homes, exhibitions, retail and hospitality.

“We closed down for a year. Mostly we do refurb work in places like nursing homes and this all stopped”

Micro specialist contractor, Northern Ireland

Some employers stated that they had found it necessary to make some staff redundant, with several also cutting costs by limiting the amount of work they sub-contract, a minority have introduced compulsory early retirement. A few self-employed individuals have brought forward their retirement plans.

Both employers and self-employed individuals were almost equally divided on what effect the pandemic has had on demand for their services with some facing reduced demand, while others saw business increasing.

Some employers spoke of huge downturns in business e.g., being reduced by 50%.

“Our business has suffered terribly; we are experiencing a huge downturn in revenue – our properties are struggling to sell despite being built. The market is very depressed at the moment and is problematic now as we are competing against other companies.”

Micro developer, Yorkshire and Humberside

Employers and self-employed individuals mentioned demand shifts from commercial to domestic work while this generally led to increased business, for a minority shifting from ‘high end’ work to domestic work caused a fall-off in revenue. Some respondents view the shift in demand as being long term, while others see it as temporary.

“Initially Covid led to a lot of work, mainly micro like extensions. Now seems to be dropping off”

Self-employed Architect, South-West

A minority of those who are experiencing demand shifting from commercial work to domestic are re-appraising their skills and knowledge. A small minority of respondents stated that the shift from commercial to domestic work had highlighted a general lack of customer service skills among tradespeople, though there was no indication that this had affected the amount of business they manage to secure.

“They (tradesmen) also seem to have no training in customer relations. My business is one of providing an excellent customer experience throughout the process, but it seems the tradesmen I hire, simply have no idea of the type of service a customer looks for”

Micro painter and decorator, Northern Ireland

Training was impacted by the pandemic, with some respondents saying it was not a priority during the pandemic; others spoke of the shift to online training. Respondents were divided on the issue of online training, some see increased convenience, cost and time savings, others view it as inferior and fear it will lead to skills gaps. Employers spoke of delays in processing CSCS cards and also having to extend apprenticeships due to difficulties completing training.

Respondents reported increased working from home during the pandemic, with some going on to say that this would continue.

“We have moved to “hybrid working” which allows two of five days working at home. This requires a rota. When normality returns, we have agreed to continue this”

Medium building services employer, Northern Ireland

The pandemic featured in answers to other survey questions and in general conversation with survey respondents. When asked about factors limiting their business (Q9 What factors, if any, are currently limiting your business?) the pandemic and material shortages/price hikes attributed to it, were the main areas of concern from respondents choosing to give information on factors other than the survey options.

5. Skill Shortages, Skill Gaps and Emerging Skill Needs

This section reports on the findings in relation to questions about skills gaps (in respondents' existing workforce) and skills shortages (which respondents have difficulty recruiting for). This year, respondents were provided with definition of these terms. This section also focuses on recruitment, and any difficulties experienced in filling hard to fill vacancies. This section also addresses causes and impacts of skills gaps on the business.

Skill Shortages

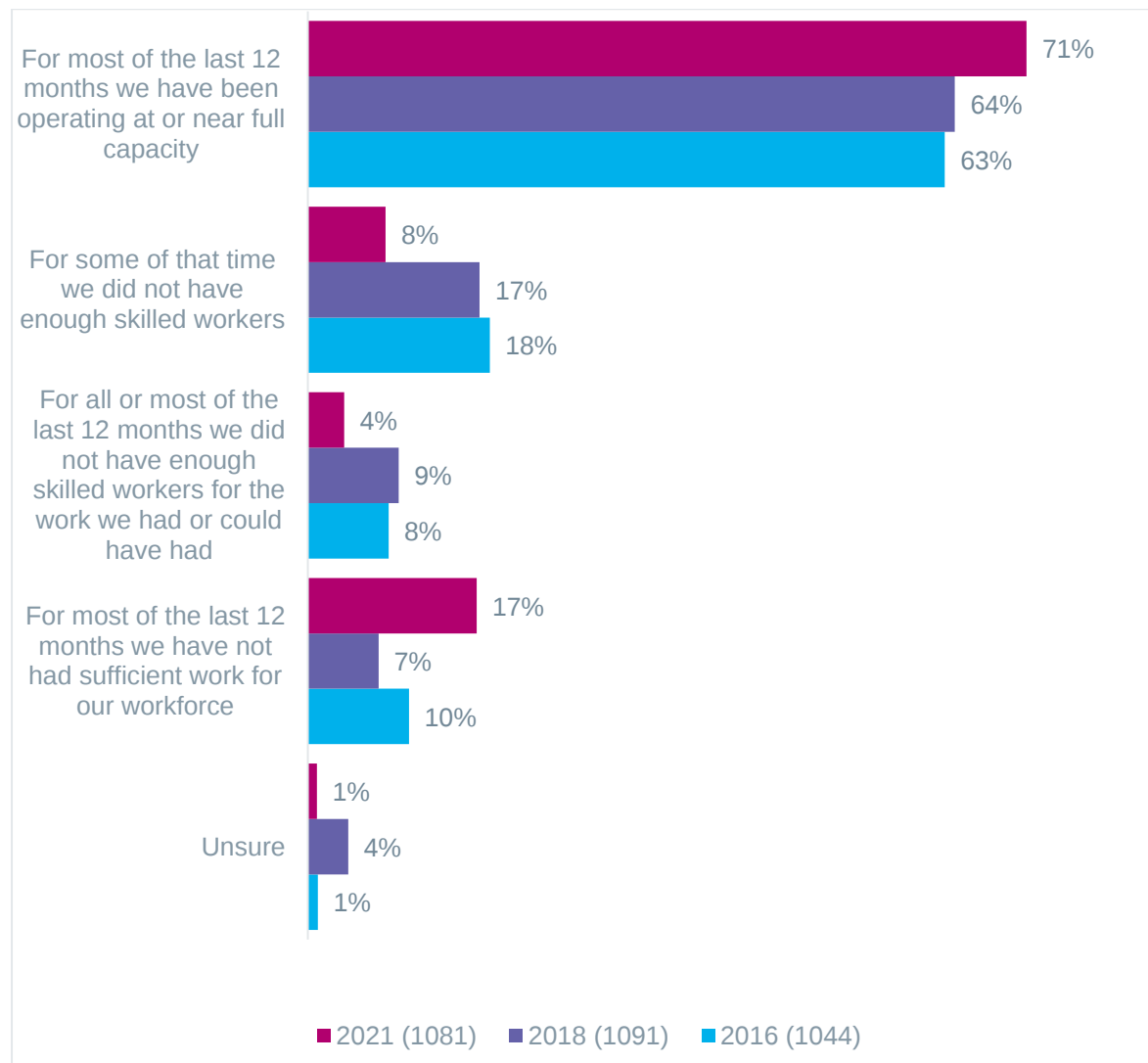
Capacity

In terms of capacity, the picture is a positive one with most employers suggesting they have not been short of work during the pandemic – with 71% of employers stating that they have been operating at or near full capacity for the last 12 months (Figure 17). This compares with 64% and 63% in the last two waves of the survey (2018 and 2016, respectively). There is no difference between construction businesses and professional services businesses in response to this question.

Whilst only 17% of businesses overall had insufficient work during the last 12 months, this situation was most prevalent amongst the smallest employers (2-9 employees) with 22% suggesting this was the case.

Only 21 self-employed individuals were asked this question: of those, almost half stated that they had been operating at or near capacity for the past 12 months.

Figure 17: Capacity and the use of workforce skills in the last year (businesses with employees)



Employer respondents who answered 'For most of the last 12 months we have not had sufficient work for our workforce' were asked for more detail.

Of the 13 employers who chose to give more detail, nine mentioned the pandemic; others were retiring or were restricted by availability of land. The three self-employed individuals who chose to give more detail all said they were restricted by the pandemic.

Recruitment

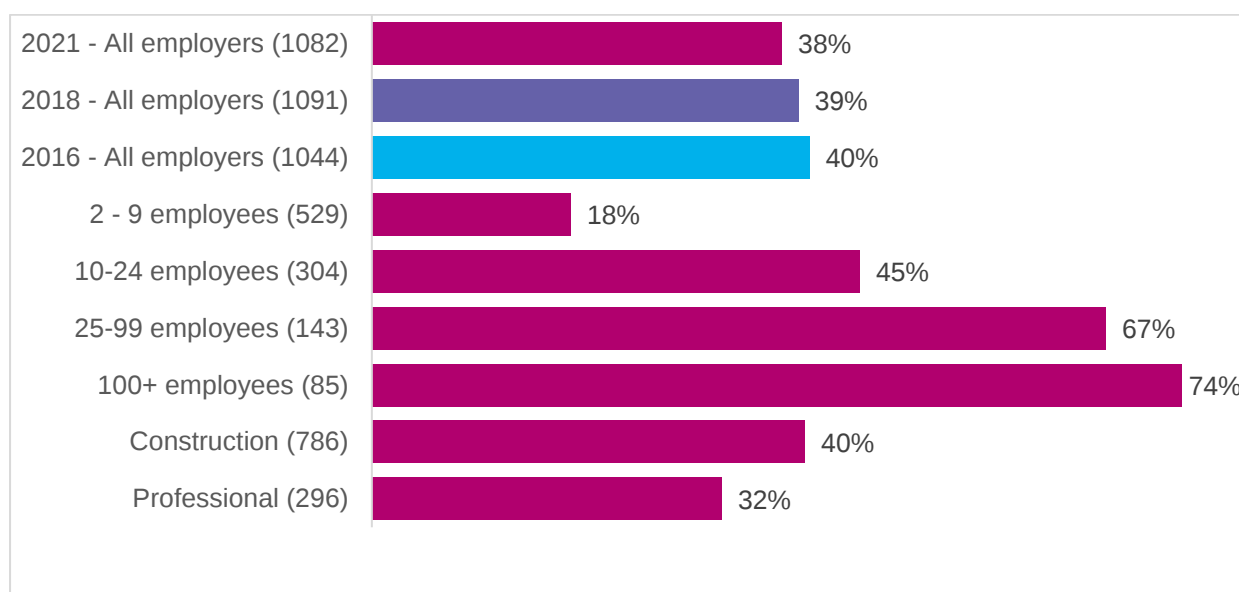
Employers who had experienced skills gaps were asked about the steps they had taken to address them. Most (42%) had tried to recruit experienced, skilled employees with just under a third (31%) sub-contracting work. Almost a quarter (22%) had tried to recruit apprentices, or less experienced staff to train up.

The response profile is similar amongst construction businesses and professional services, with 39% of construction businesses having tried to recruit direct labour, compared with 42% of professional services. However, construction businesses were more likely to try to recruit an apprentice (26%) than professional services (11%). Construction businesses are also more likely to sub-contract work: 36% compared with 16%. Larger businesses were more likely than small businesses to take any actions to address skills gaps.

The proportion of employers who had recruited new direct employees in the last 12 months is broadly in line with the results for 2016 and 2018, with 38% of all employers having done so (Figure 18). Recruitment was most common amongst the largest businesses, with over 100 employees (74% having recruited). Slightly more construction businesses (40%) recruited than professional services (32%).

Less than 2% of self-employed businesses had tried to recruit any staff in the last year.

Figure 18: Proportion of businesses that have recruited any new direct employees in the last 12 months (businesses with employees)



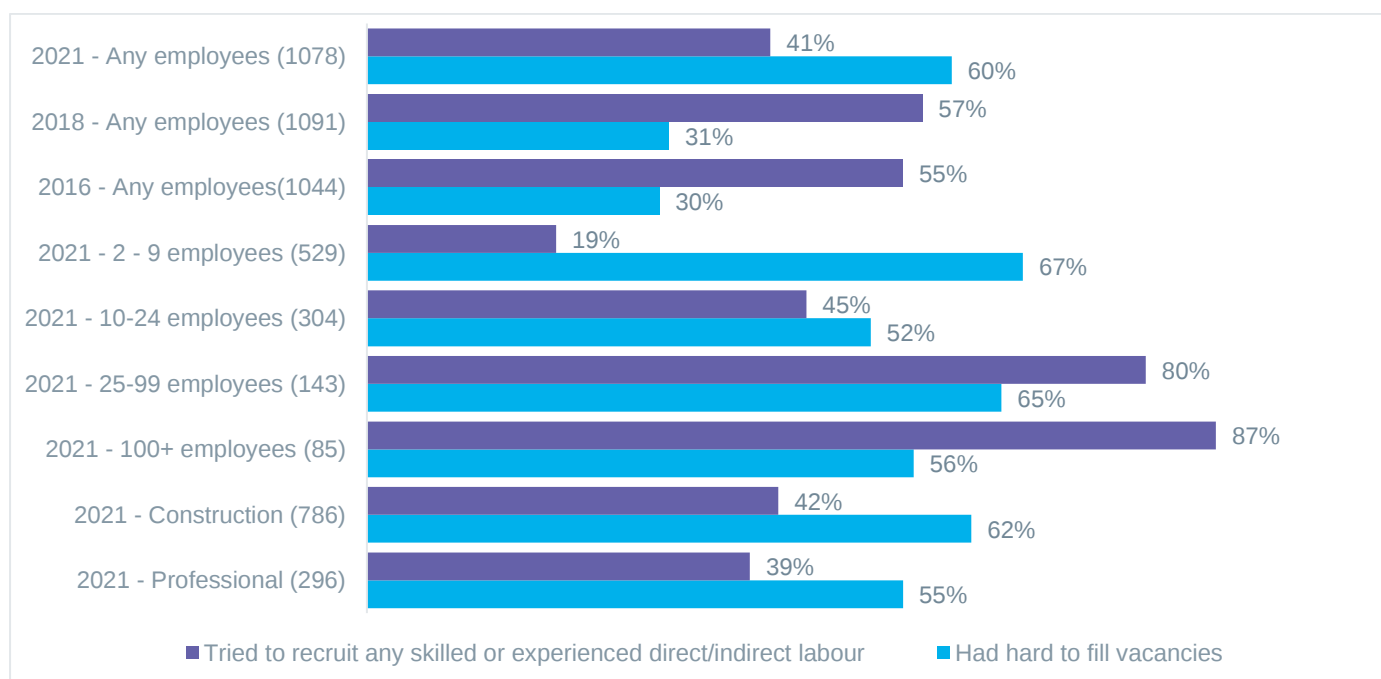
Across the four nations, recruitment was more common amongst employers in Scotland (48%) than elsewhere. Recruitment was lowest amongst Welsh businesses (22%).

Recruitment difficulties

The recruitment trends between the previous two surveys and the 2021 results are strikingly different (Figure 19). Only 41% of employers tried to recruit direct labour in 2021 compared with 57% in 2018 and 55% in 2016. The difference could be explained by the impact of the pandemic and restrictions caused by the various lockdowns, despite most employers operating at, or above, capacity.

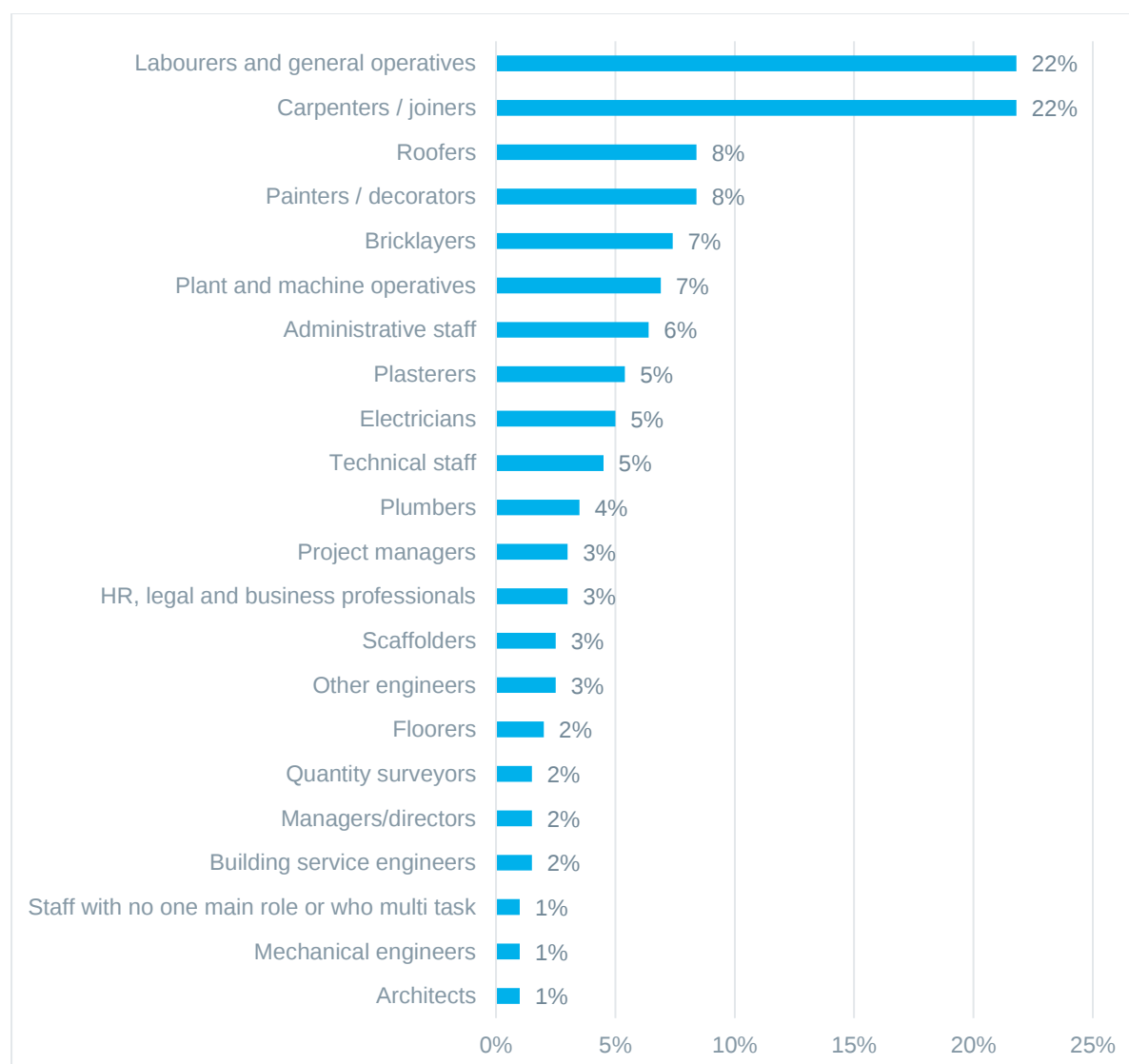
However, the numbers of employers who are experiencing hard to fill vacancies has increased from 30% in 2018 to 60% in 2021. The situation is most pronounced amongst the smallest businesses, with 67% experiencing hard to fill vacancies.

Figure 19: Summary of recruitment activity and difficulties, by sector and size (businesses with employees)



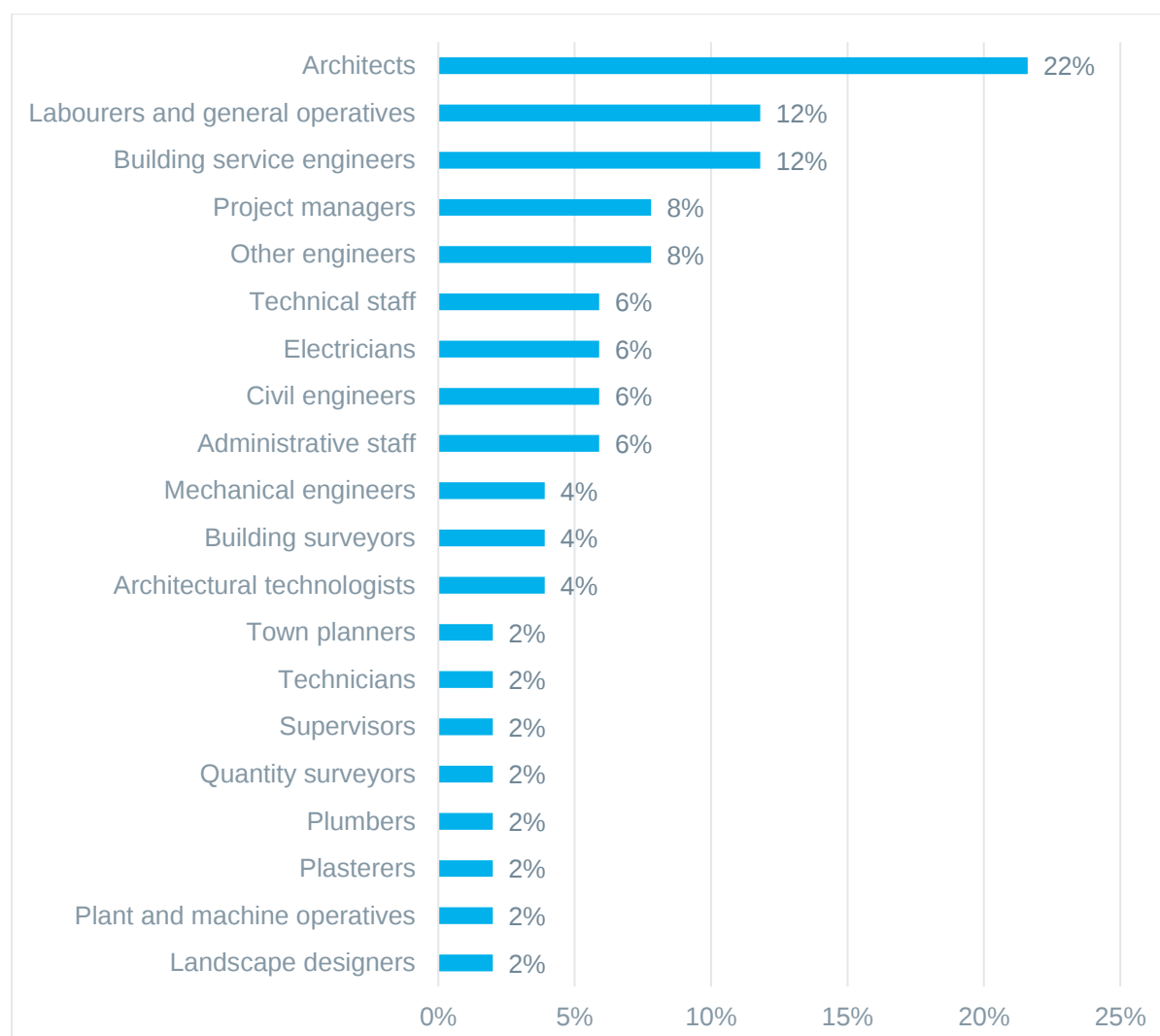
The occupations identified as being most hard to fill amongst construction employers are labourers and general operatives (22%) and carpenters/joiners (22%) (Figure 20). This compares with 21% of employers identifying carpenters/joiners as the most difficult to recruit for in 2018, followed by bricklayers (19%). Employers in 2018 were more likely to identify electricians (12%) than in 2021 (5%). Only 10% of employers identified labourers and general operatives in 2018.

Figure 20: Main occupations in which recruitment difficulties have been experienced within the construction sector (employers that have had hard-to-fill vacancies) (unweighted base 202)



For professional services businesses, architects are the most difficult to recruit for with 22% of businesses identifying this role. Unusually, 12% of professional services employers suggested they have difficulty recruiting labourers and general operatives and an equal proportion identified building service engineers (Figure 21).

Figure 21: Main occupations in which recruitment difficulties have been experienced within the professional services sector (employers that have had hard-to-fill vacancies) (unweighted base 51)

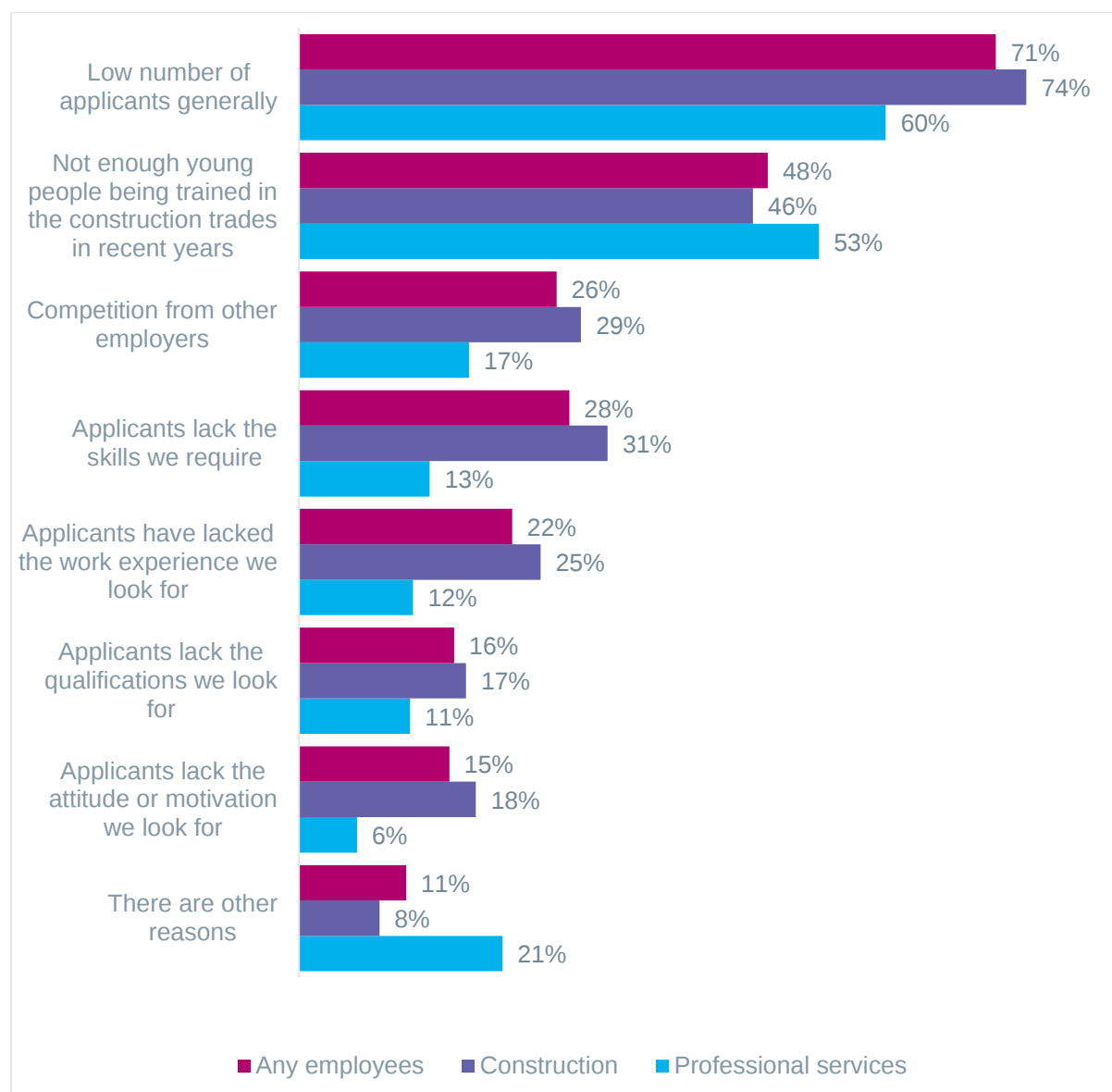


Employers who reported hard to fill vacancies suggest that a low number of applicants is the most typical factor (71%) Figure 22: Perceived causes of recruitment difficulties, by sector–prompted, multiple response (employers that have had hard-to-fill vacancies)

(Figure 22). This compares with 56% in 2018. The perceived low number of applicants may be a symptom of the pandemic and various lockdowns in which movement was restricted.

Insufficient young people being trained was also highlighted by 48% of employers, followed by applicants lacking the skills required (28%). Numbers being trained are likely to be affected by the impact of the pandemic.

Figure 22: Perceived causes of recruitment difficulties, by sector—prompted, multiple response (employers that have had hard-to-fill vacancies)



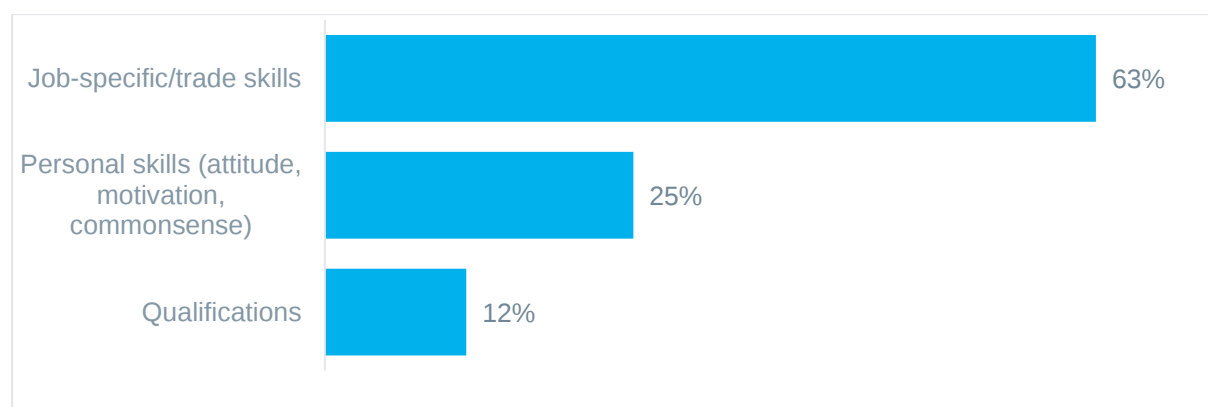
Professional services employers were more likely to identify ‘other’ reasons. The pandemic was the most common reason given by the 35 respondents who chose to give other reasons for having hard to fill vacancies; other reasons were the image of their particular sector, people being unwilling to work, high wage demands and there being few people in the jobs market.

Employers who have experienced hard to fill vacancies were asked which where the most difficult skills to obtain from applicants. Almost two thirds (63%) mentioned trade or job specific skills, while a quarter spoke of personal skills lacking in applicants, while just over a tenth (12%) found they applicants didn’t have the necessary qualifications (Figure 23).

These findings were post-coded following completion of the survey and are not directly comparable with the 2018 findings. The 2018 survey found that job specific/trade skills were identified by 23% of

employers are difficult to obtain. However, a comparable number (28%) suggested personal skills were difficult to obtain and 13% identified qualifications; this compares with 12% this year.

Figure 23: Skills difficult to obtain from applicants – unprompted, multiple response (employers that have had hard-to-fill vacancies)



Impact on business

In response to hard to fill vacancies, most employers (36%) have increased the use of overtime and staff workload; work was outsourced by almost as many employers (34%) (Figure 24). This compares with 61% and 38% of businesses in 2018. The extent of outsourcing is therefore similar, however the number of employers using overtime or increasing workload has declined substantially.

Amongst the self-employed the number that have missed project deadlines is the same in 2018 and 2021 (43%), however the prevalence of other impacts is very different. For example, 43% of the self-employed in 2021 suggested they have increased their operating costs, and 43% have increased the use of overtime compared with 63% and 13% respectively in 2018. It should be noted that the results for 2018 for the self-employed are based on a very low number of respondents.

More professional services businesses (45%) than construction businesses increased the use of overtime (33%). Conversely, more construction business outsourced work (37%) than professional services businesses (23%).

Figure 24: Impact of hard-to-fill vacancies – prompted, multiple response (employers that have had hard-to-fill vacancies)

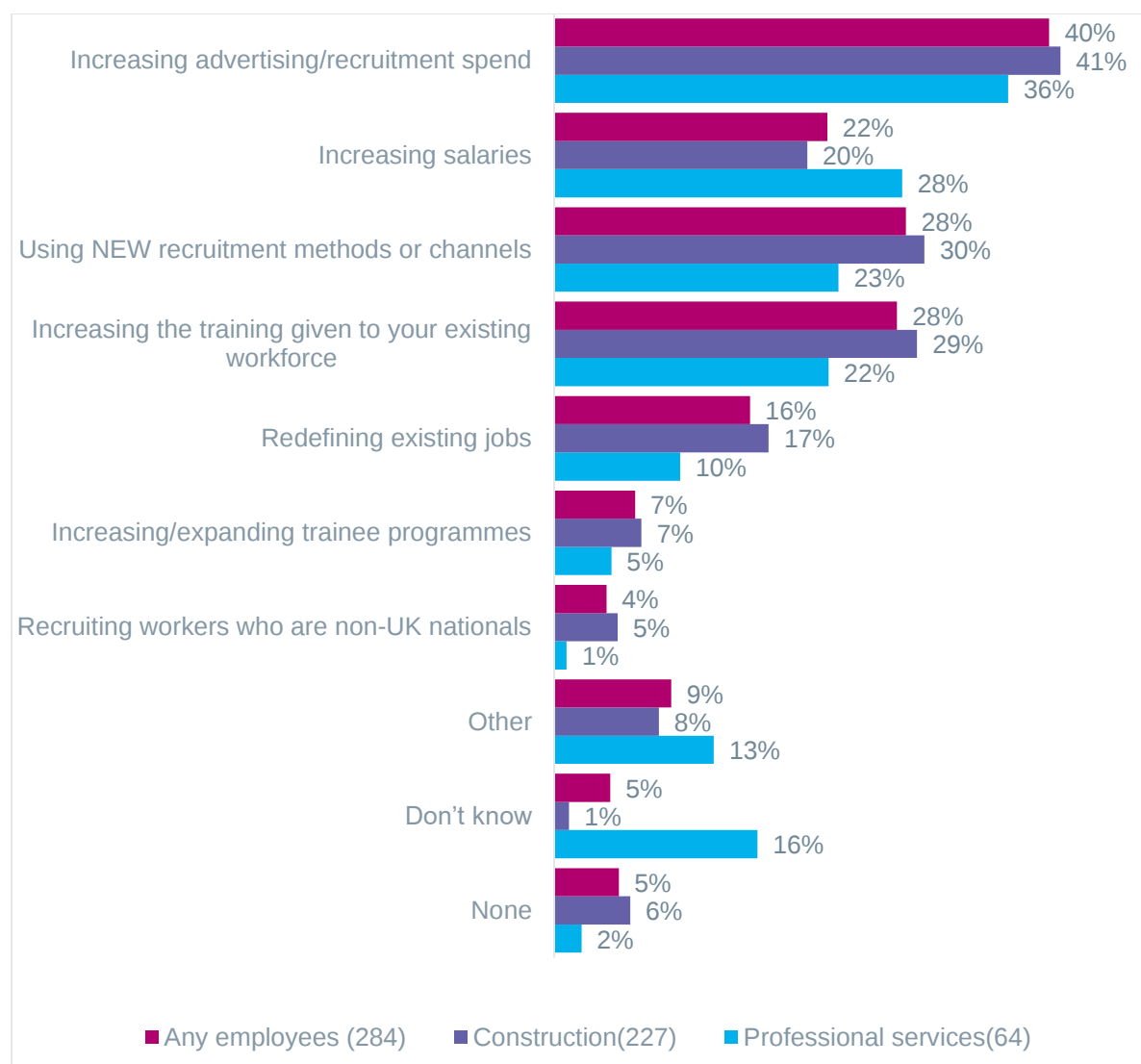
Column percentages	Any employees	Self employed	Construction	Professional services	2-9	10-24	25-99	100+
Lose business or turn down bidding for work	14%	29%	13%	16%	15%	24%	10%	3%
Increase operating costs	32%	43%	32%	30%	29%	22%	34%	46%
Increase the use of overtime and the workload for staff generally	36%	43%	33%	45%	31%	39%	41%	31%
Outsource work	34%	29%	37%	23%	38%	34%	41%	20%
Miss project deadlines	14%	43%	14%	15%	14%	18%	14%	9%
None	14%	14%	17%	2%	8%	15%	21%	10%
Don't know	4%	-	1%	17%	1%	2%		20%

Responding to recruitment difficulties

Employers who identified having hard to fill vacancies were then asked about the activities they had undertaken to address the issue (Figure 25). The most common tactic was to increase their advertising or recruitment spend (40%), followed by using new recruitment channels (28%) and increasing the training given to their existing workforce (28%). The picture varies little between construction businesses and professional services. However, in 2018, fewer businesses had increased their advertising and recruitment spend (23%) or increased the training given to existing staff (12%). Although a similar proportion to 2021 used a new recruitment method or channel (24%).

The proportion of employers recruiting non-UK nationals has hardly changed, with 4% adopting this practice in 2021 and in 2018.

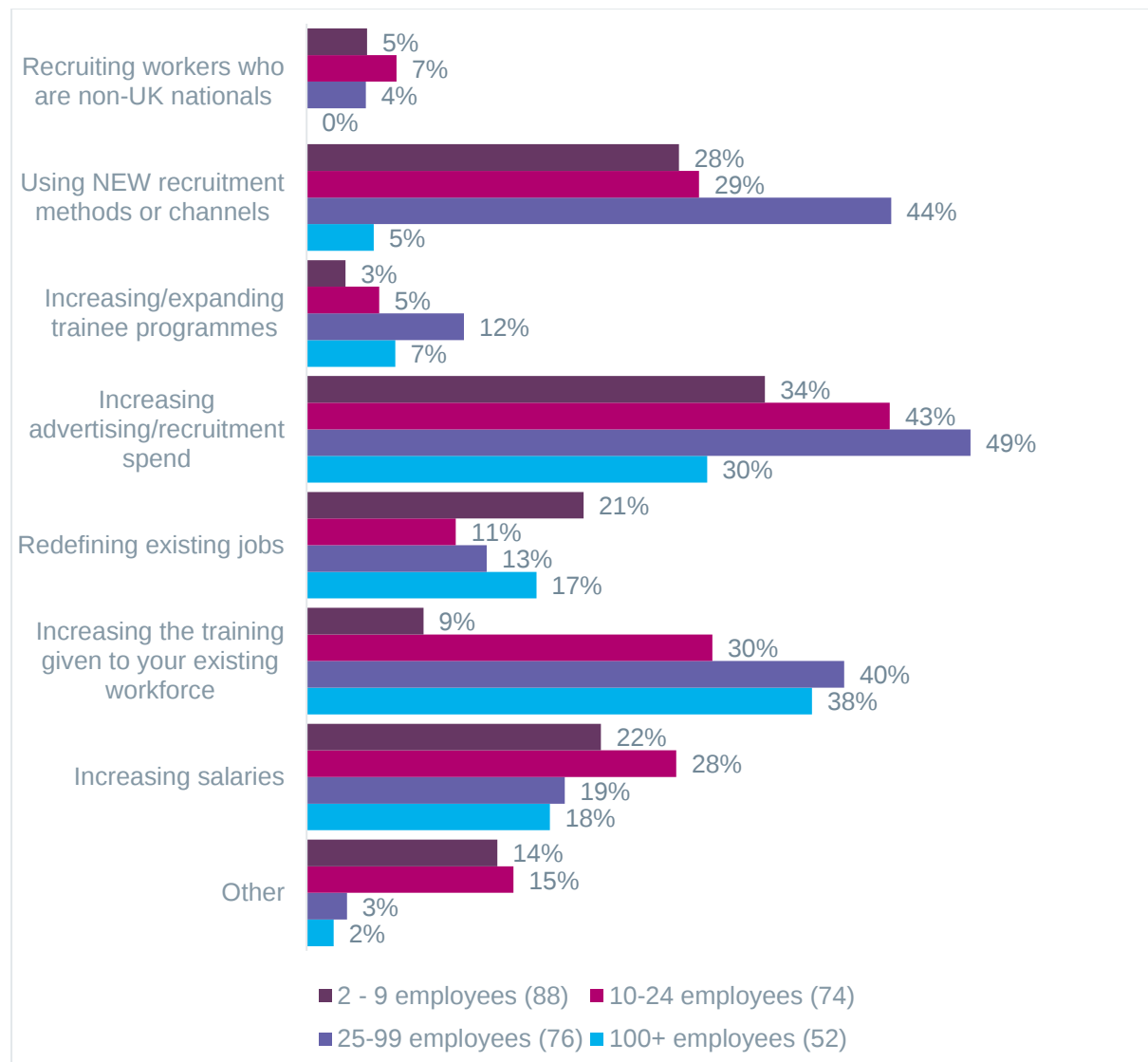
Figure 25: Activities that have been undertaken to overcome recruitment difficulties, by sector –unprompted, multiple response (employers that have had hard-to-fill vacancies)



When analysing by business size, larger businesses are more likely to have adopted any of these actions to overcome recruitment difficulties (Figure 26). ‘Increasing advertising spend’ is the most common action amongst employers. The largest businesses – those with 100+ employees – were most likely to increase the training given to staff (38%) or increase advertising/recruitment spend (30%). The smallest businesses those with 2-9 employees were most likely to increase their advertising spend (34%), followed by using new recruitment methods or channels (28%).

Compared to 2018, more businesses of all sizes had increased their recruitment spend in 2021.

Figure 26: Use of training and recruitment methods to overcome recruitment difficulties, by business size –unprompted, multiple response (employers that have had hard-to-fill vacancies)



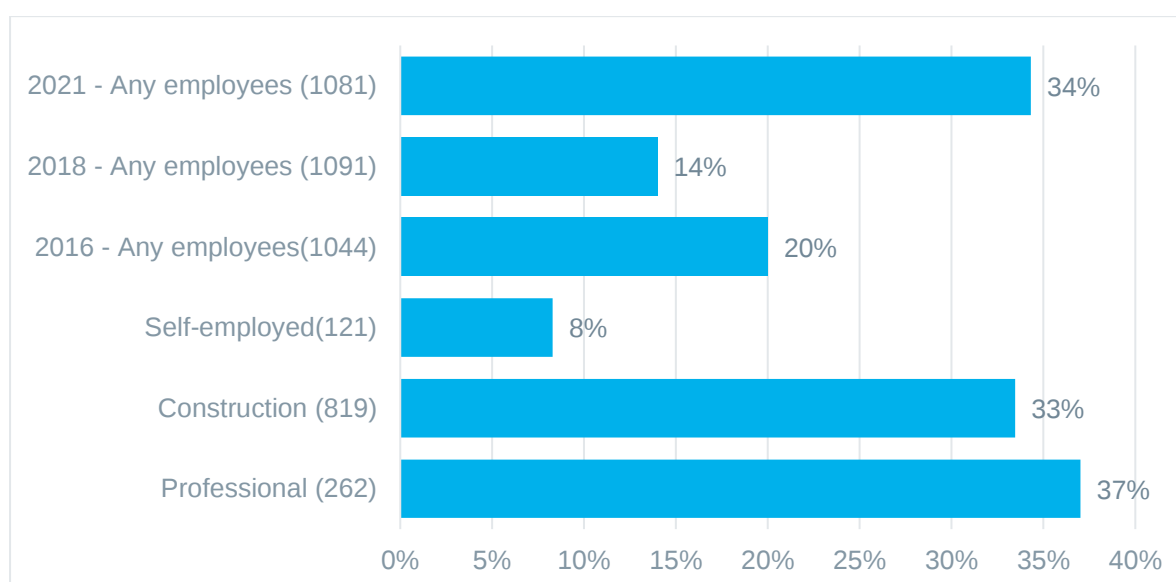
Skill gaps

Business – employers and the self-employed – were asked if they had any skills gaps. Employers were asked about skills gaps in their workforce, self-employed individuals were asked whether or not they regarded themselves as being fully proficient (Figure 27). Thirty four percent of employers suggested they have skills gaps, compared with 14% in 2018 and 20% in 2016.

Employers in the construction sector were slightly less likely to identify skills gaps (33%) than those in professional services (37%).

Of self-employed individuals, only 8% suggest that they have any skills gaps. The remainder regard themselves as ‘fully proficient’. The proportions are equal amongst those in construction businesses and professional services. This compares with 19% of self-employed individuals admitting they have skills gaps in 2018.

Figure 27: Proportion of businesses with skill gaps, by sector and size (all employers/self-employed individuals)



Occupations and skills gaps

Where employers admitted to experiencing skills gaps in their workforce, they were asked to state the types of skills their staff were missing and what those skills are.

The most common types of skills missing were ‘job-specific/trade skills’, identified by 42% of employers who cited any skills gaps. The second most common gap was ‘Qualifications (NVQ)’, cited by 23% of all employers (Figure 28).

Of the occupations in which employers identified skills gaps, labourers and general operatives were most common, followed by roofers and carpenters. These are also the professions in which the highest number of workers are employed by respondents.

Further detail is provided in Figure 28, which illustrates the breakdown by skills and by occupation. Note: these data should be viewed as indicative, rather than absolute, due to the low base numbers of responses. This is likely to explain why the data are dissimilar to the figures from 2018, because both datasets contain very low bases for each occupation (for example, only five for 'staff with no main role' and only six for building services engineers).

'Other' occupations mentioned by fewer than five respondents each were Asphalt layers, Town planners, Asbestos handlers, Welders, Stonemasons, Warehouse assistants.

Figure 28: Skills required, by occupation in which skill gaps are cited (employers with skill gaps)

Column percentages	Employers with skill gaps	Carpenters/joiners	Bricklayers	Roofers	Plant and machine operatives	Electricians	Labourers and general operatives	Other engineers	Administrative staff	Staff with no main role or who multi-task	Architects	Painters and decorators	Plasterers	Building service engineers
Experience/knowledge	9%	0%	20%	15%	0%	17%	3%	0%	44%	0%	5%	0%	0%	0%
Personal skills (attitude, motivation, common sense)	6%	0%	0%	4%	9%	0%	8%	0%	11%	0%	5%	11%	0%	0%
Job-specific/trade skills	42%	36%	13%	12%	0%	33%	28%	42%	33%	0%	5%	33%	42%	17%
IT skills	2%	0%	0%	0%	9%	0%	0%	0%	0%	0%	11%	0%	0%	0%
Qualifications (NVQs)	23%	32%	33%	8%	0%	17%	3%	8%	0%	0%	47%	6%	0%	17%
Health & Safety	8%	5%	7%	8%	9%	0%	3%	8%	0%	0%	0%	11%	8%	17%
Electrical/electronic skills	1%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Welding/fabrication	1%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17%
Plant operation	3%	0%	0%	0%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Any other skills	5%	0%	0%	0%	18%	0%	5%	8%	11%	40%	0%	0%	0%	0%
<i>Unweighted Bases</i>	224	22	15	26	11	6	40	12	9	5	19	18	12	6

Causes

As in common with the 2018 survey, the causes cited by most employers is that staff are still in training - 59% of employers in 2021, compared with 38% in 2018. The second most common cause is that staff lack experience, or they have been recently recruited (26%) this was also the second most common cause given in 2018, by 35% of employers. A few other responses were given, by no more than 5% of employers answering this question who had identified hard to fill vacancies. These responses include staff lacking motivation and 'other' causes.

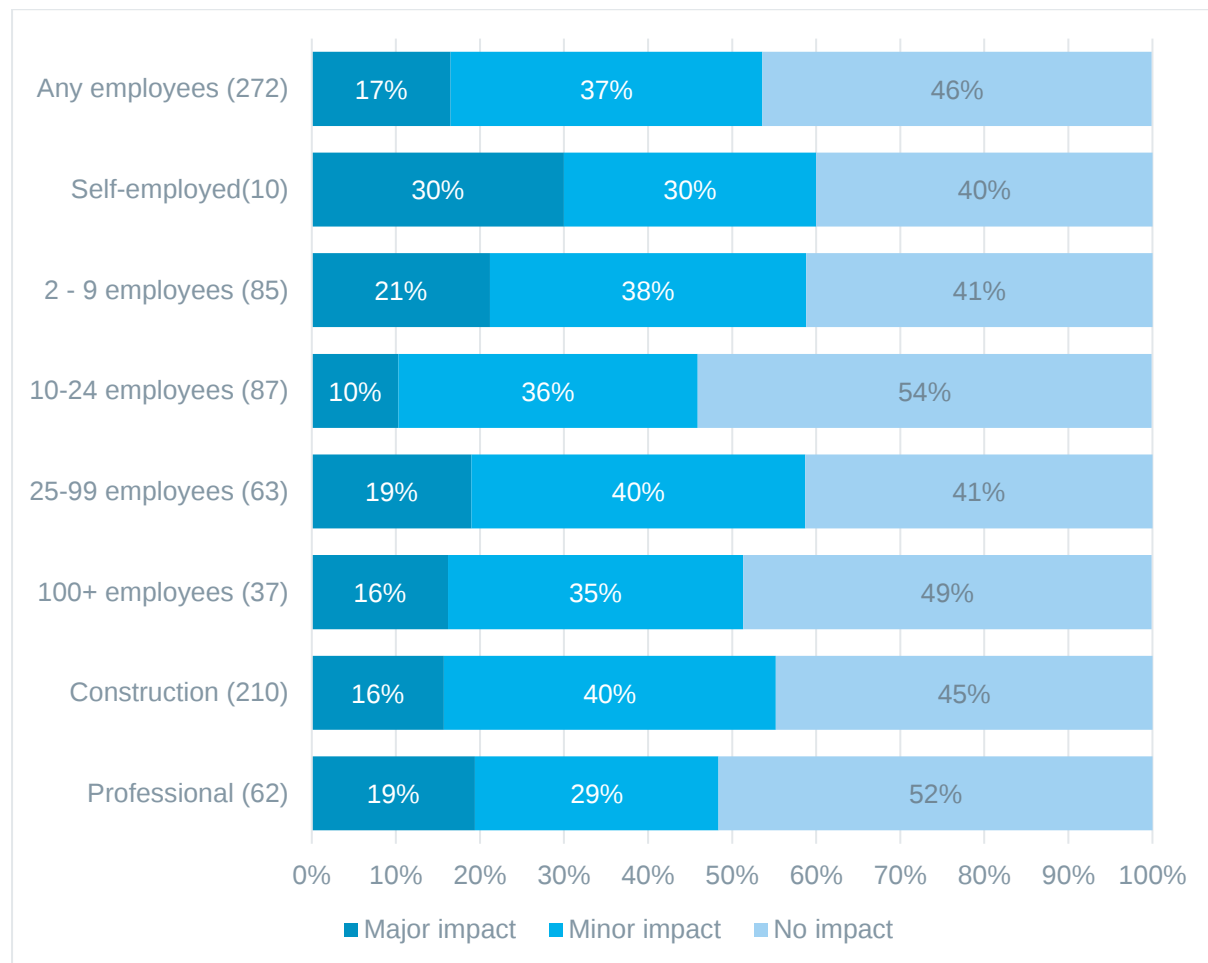
Impact

Employers who had identified skills gaps were asked the extent of the impact they perceived this had had on their business (Figure 29). On the whole, employers tended to be positive about this, with 46% of all businesses with employees suggesting there was no impact on their business. This compares with 36% of businesses in 2018. In 2021, 37% of business report a minor impact and 17% suggest a major impact; in 2018 the figures were 45% and 19%, respectively.

Firms in the construction sector and those with 25-99 employees were more likely to identify any impact.

More self-employed individuals than any other group suggested skills gaps had a major impact on their business (30%).

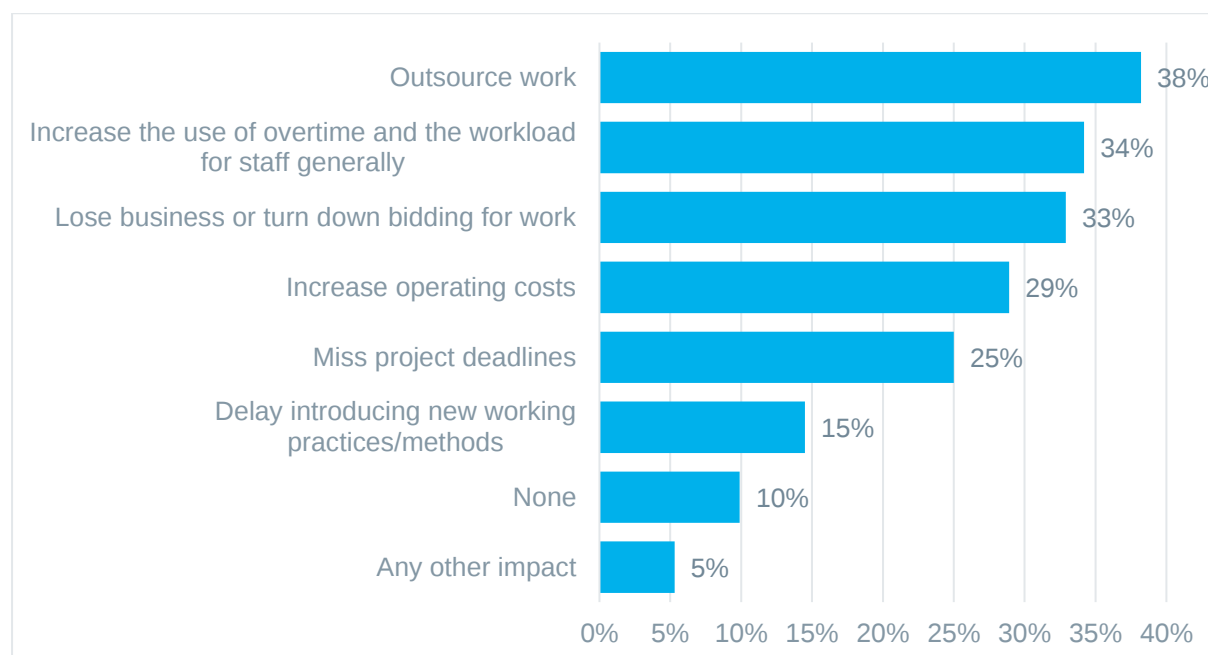
Figure 29: Extent to which skill gaps impact on business performance, by sector and size (where have skill gaps)



As well as asking about the causes of skills gaps, the survey also asked businesses about the impact of those skills gaps. Figure 30 illustrates the responses from business with direct employees; the number of self-employed individuals identifying skills gaps is too low for the analysis for this group to be meaningful.

In response to skills gaps, most employers have outsourced work (38%) compared to 27% in 2018. In 2018, the action taken by the largest proportion of employers was 'increase the use of overtime' (56%), compared to 34% of businesses in 2021.

Figure 30: Ways in which skill gaps are impacting on businesses (where skills gaps have been identified)

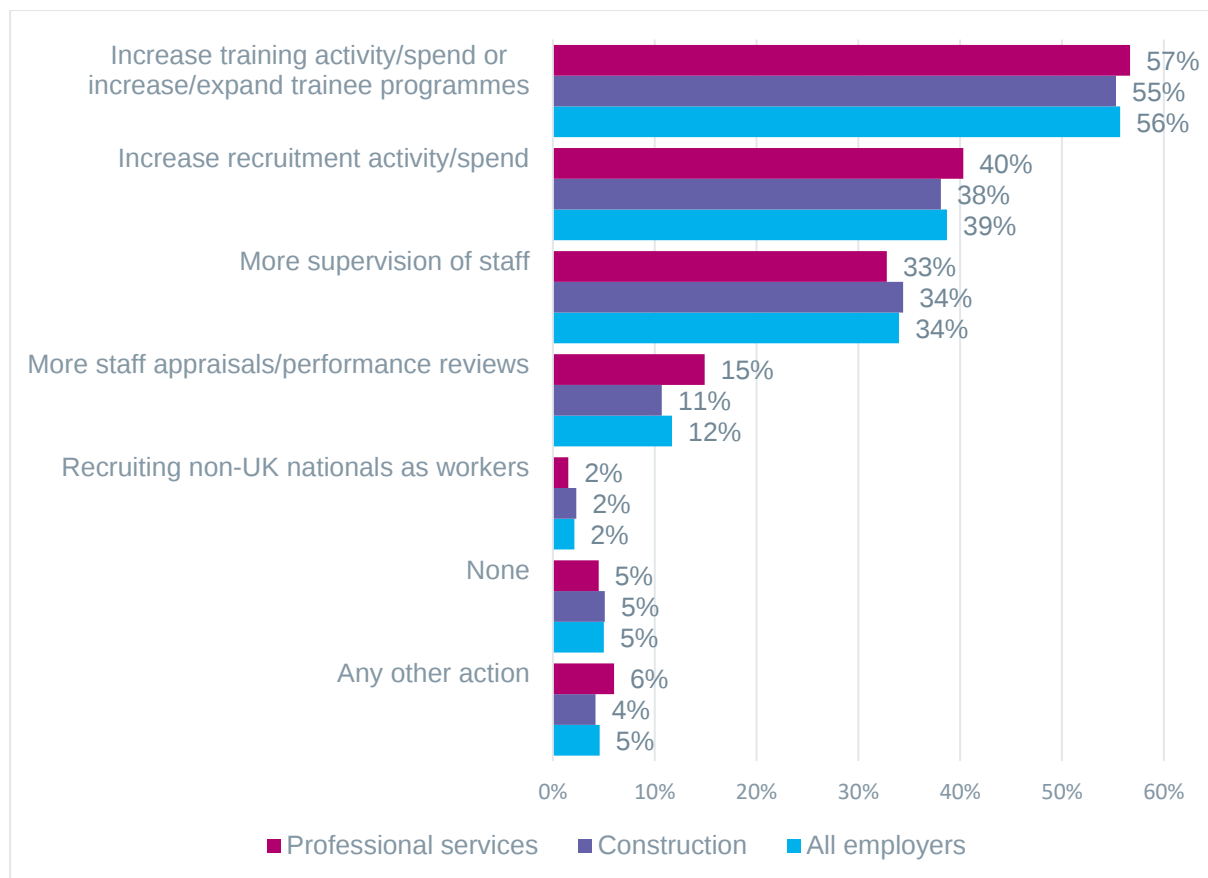


Employers giving 'other' effects of skills gaps on their businesses mentioned: having to spend time checking work; increasing supervision and mentoring; closing a branch of the business and increasing overtime to compensate for time management issues.

Responses to skills gaps

In response to skills gaps, employers have reported various actions, most commonly increasing training activity or spend, or increasing or expanding their trainee programmes (56%) (Figure 31). This compares with 73% of businesses in 2018. The second most common response is increasing recruitment activity or spend (39%) or more supervision of staff (34%).

Figure 31: Action businesses are taking to overcome skill gaps, by sector - unprompted, multiple response (employers with skill gaps) (base 282)



Other actions to overcome skills gaps detailed by respondents were focused on recruiting apprentices or subcontracting work.

Up-skilling

Drivers for new skills and knowledge

All employers were asked about whether various different factors would require the business to acquire new skills (Figure 32). The factor predicted to have the biggest impact is an increase in competitive pressure (36%); this compares with 34% in 2018 and 33% in 2016. The biggest factor in the two previous years was new legislative or regulatory requirements (57% in 2018, and 60% in 2016). In 2021, this factor was identified by 34% of all employers.

In 2021, a new option was added to the survey of 'increasing use of Modern Methods of Construction (MMC) in our business'. Only 15% of businesses with direct employees identified this as a driver, and 7% of the self-employed. Large employers were more likely to identify this driver, with 50% of businesses with 100+ employees recognising a skills impact from MMC.

Figure 32: Drivers of new skills or knowledge -prompted, multiple response (all employers)

Column percentages	Employers				No. of employees (site based)			
	Any direct employees	Self employed	Construction	Professional services	2-9	10-24	25-99	100+
The development of new products and services	26%	8%	27%	26%	23%	29%	28%	40%
New Eco/Energy saving design/build methods	15%	2%	15%	16%	6%	17%	27%	48%
The introduction of new working practices	29%	8%	29%	30%	20%	40%	31%	51%
The introduction of new technologies or equipment	23%	6%	24%	22%	16%	27%	22%	55%
New legislative or regulatory requirements	34%	9%	36%	27%	27%	40%	36%	50%
Increased competitive pressure	36%	6%	36%	35%	32%	42%	25%	57%
Business management	19%	4%	17%	26%	14%	24%	22%	35%
Environment requirements	27%	3%	28%	23%	15%	34%	37%	53%
Increased digitalisation in our business	27%	5%	23%	35%	20%	30%	28%	53%
Increased use of Modern Methods of Construction in our business	15%	7%	16%	15%	9%	18%	16%	50%
Other reasons	14%	1%	14%	16%	10%	12%	21%	35%
Unweighted bases	971	120	716	290	518	282	126	81

Occupations affected by the 'drivers'

In line with earlier responses, the trades most likely affected by the drivers of change are labourers and general operatives, amongst construction businesses (33%), followed by carpenters/joiners (18%) (Figure 33). In 2018, employers also identified labourers and carpenters in the three occupations most likely to be affected; however, most employers (18%) identified managers/directors.

Amongst professional services, architects are most likely to be affected (23%), followed by project managers (18%). This compares with 17% of employers identifying architects in 2018, followed by managers/directors (13%).

Figure 33: Top occupations affected by the need to acquire new skills or knowledge in the next year, by sector (employers anticipating the need for new skills and knowledge)

Construction		Professional services	
Labourers and general operatives	33%	Architects	23%
Carpenters/joiners	18%	Project managers	18%
Bricklayers	8%	Civil engineers	14%
Floorers	7%	Other engineers	14%
Painters/decorators	7%	Mechanical engineers	10%
Plasterers	6%	Building service engineers	8%
Roofers	5%	Building surveyors	4%
Technical staff	5%	Technicians	4%
Scaffolders	4%	Town planners	2%
Plumbers	3%	Quantity surveyors	2%
Electricians	2%	Landscape designers	2%
Plant and machine operatives	2%	Architectural technologists	1%
Supervisors	1%		
<i>Unweighted sample base</i>	318	<i>Unweighted sample base</i>	200

Businesses were also asked which skills they predicted would be needed as a response to the drivers they had identified (Figure 34).

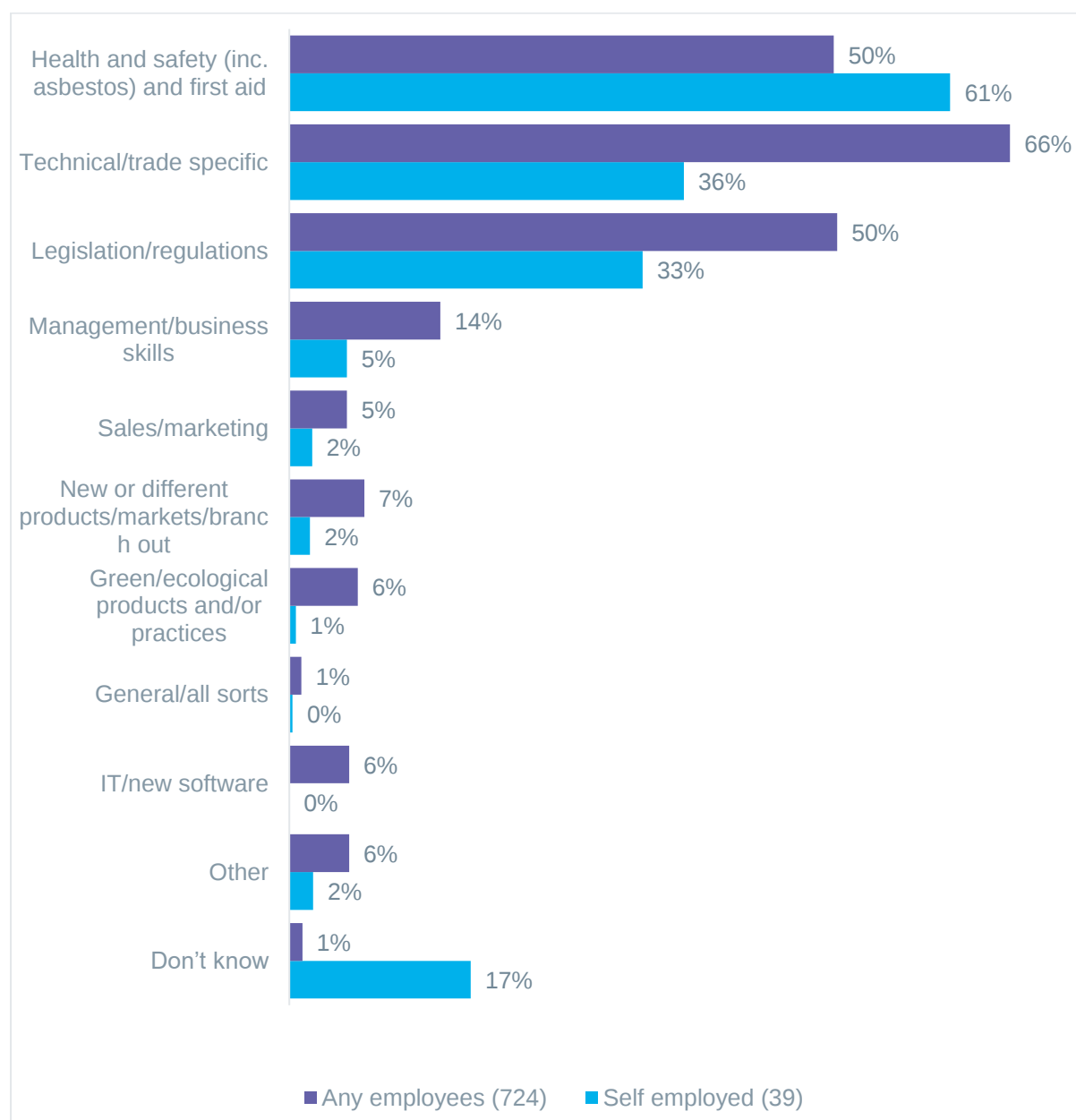
Employers identified trade specific or technical skills as their greatest need (66%), followed by legislation and regulations (50%). These figures are substantially higher than in 2018 with 27% of employers identifying legislation (the factor identified by most employers) and 27% identifying trade or technical skills. Despite the proportions identifying each of these skills being much higher in 2021, the same skills appear in the top three in both surveys.

The figures for the self-employed are based on only 39 responses, therefore these should be treated as indicative only. The results suggest that health and safety skills are most likely to be needed (61%) which is at odds with 2018 (7%) and is likely explained by the low base number of respondents.

Responses for other skills are broadly in line with the results for 2018:

- 14% of employers identifying management skills, compared to 11% in 2018;
- sales and marketing skills were identified by 5% of employers in 2021, compared with 3% in 2018;
- new or different materials were identified by 7% of employers in 2021 compared with 11% in 2018.

Figure 34: Skills and knowledge that will need improving or updating over the next 12 months -multiple response (where need to acquire new skills or knowledge)

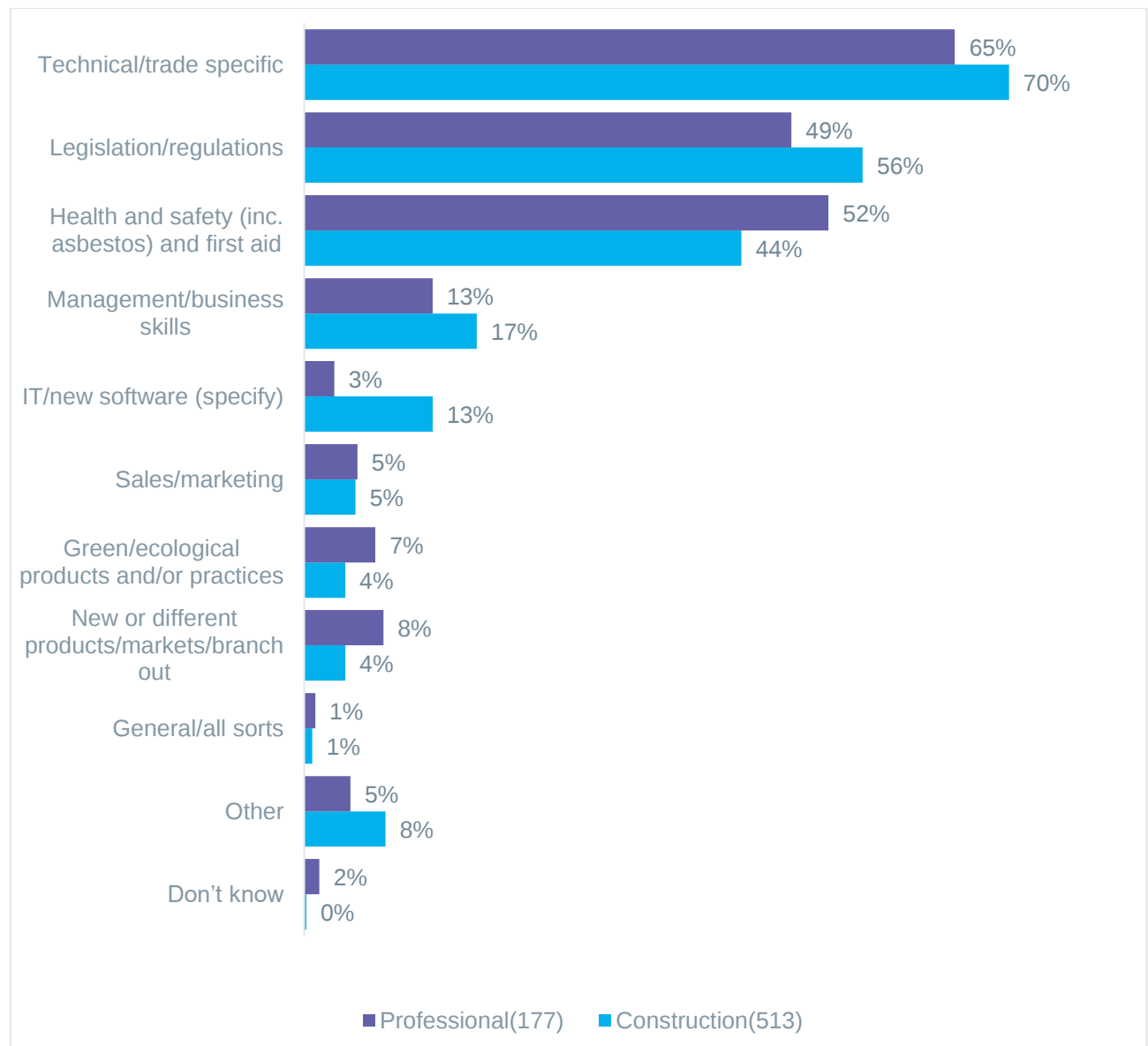


Other drivers affecting the need to update skills and knowledge were CPD requirements (particularly for Architects), Health and Safety, CDM and CAD, sales and marketing, sustainability and new ways of working due to the pandemic.

When comparing the skills identified by construction versus professional services employers, the results are broadly similar, with technical/trade specific skills being the top skill identified by both (Figure 35).

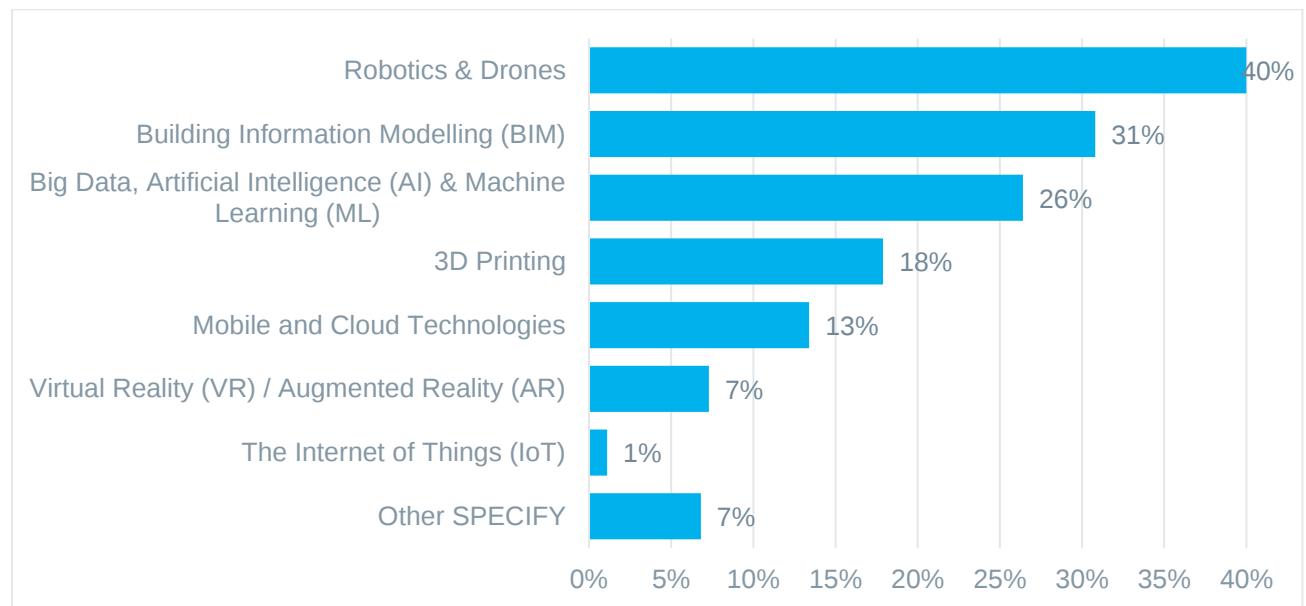
In terms of any differences between the nations, there is some variation; for example, employers in Northern Ireland were more likely to identify 'regulation and legislation' (50%) compared with 42% in Scotland. Health and safety skills were the top skill in the other nations.

Figure 35: Skills and knowledge that will need improving or updating over the next 12 months, by sector -multiple response (where need to acquire new skills or knowledge)



In the 2021 survey, employers who suggested IT skills as require improvement were asked for further detail (Figure 36). The top skill identified was robotics and drones (40%) followed by BIM (31%). Please note: this data is based on a low number of responses – just 39 who identified IT skills in the previous question.

**Figure 36: Digital skills that will need improving (by those selecting IT/new software)
(base 39)**



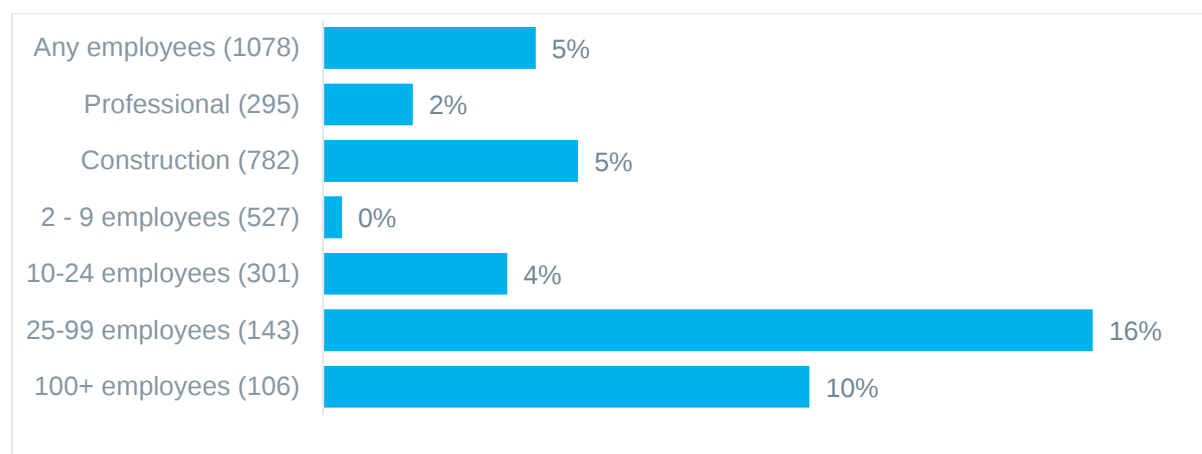
Migrant workers

Directly employed migrant workers

The numbers of migrant workers employed by businesses has declined between 2018 and 2021, most likely as a result of the combined effects of the UK's exit from the EU, and workers remaining in their home countries during the pandemic. Only 5% of employers stated that they currently directly employ migrant workers, compared with 16% in 2018 (Figure 37). Employers in the construction sector are more likely to employ migrant workers (5%) than the professional services sector (2%); this is the reverse of the pattern in 2018.

In line with the 2018 findings, employers in London were most likely to employ migrant workers: 8% in 2021, compared with 42% in 2018.

Figure 37: Employment of migrant workers, by business size and sector (all employers)



Occupations of migrant workers

Where migrant workers are directly employed, they are most likely to be employed as general labourers and operatives (44%), followed by carpenters/joiners (11%). Other occupations include:

• Bricklayers • Painters/decorators • Plasterers • Roofers • Plant and machine operatives • Technical staff • Civil engineers	• Mechanical engineers • Other engineers • Town planners • Technicians • Managers • HR • Administrative staff
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As the number of businesses employing migrant workers is relatively low, this analysis is based on a small number of respondents.

This was a new question added for 2021.

Number of migrant workers

In 2021, employers were also asked how many migrant workers they employ and the change over time. On average, businesses directly employed 4.6 migrant workers each. The numbers ranged between a minimum of 1 worker and a maximum of 10 workers.

Employment of indirect migrant workers range from 1 to 20, with businesses directly employing, on average 3.8 EU workers and 4 non-EU workers. The maximum number of non-EU workers employed by a business is 12.

Employment of migrant workers in response to skill shortages and skill gaps

Employers were asked if they had recruited any migrant workers in response to hard to fill vacancies. Of employers with hard to fill vacancies, only 6% had taken this course of action. Employers in London were more likely to have done this, than employers in other regions of the UK.

A new question for 2021 asked employers about the training needs of their migrant workers. These findings should be viewed as indicative due to the low based numbers (i.e., only 5% of all employers). Most these employers (63%) suggested the training needs of migrant workers are no different than the rest of the workforce, however where training needs were identified, these included:

- English Language training/education (21%)
- Mandatory training (e.g., CSCS card) where migrant qualifications are not recognised in the UK (21%)
- Additional health and safety training (non-mandatory) (13%)

Employers who suggested their migrant workforce was decreasing were asked what actions they are taking in response. Again, these findings should be viewed as indicative as they are based on low numbers (38 employers). The most common response was that they have tried to recruit more skilled staff from the domestic workforce (43%), they have recruited unskilled staff from the domestic workforce to train for skills roles (38%), or they have had to upskill existing employees (20%).

The points-based system

In January 2021 a new 'points-based' immigration system was introduced in the UK. A new question was added to the survey which asked employers if they felt this had any impact on their recruitment or retention of migrant workers. Only 3% answered yes to this question. Of this 3%, the most impact was that employers could still recruit migrant workers, but this had increased their admin burden (44%) or that, because of the points-based system, they no longer target recruitment of migrant workers (26%).

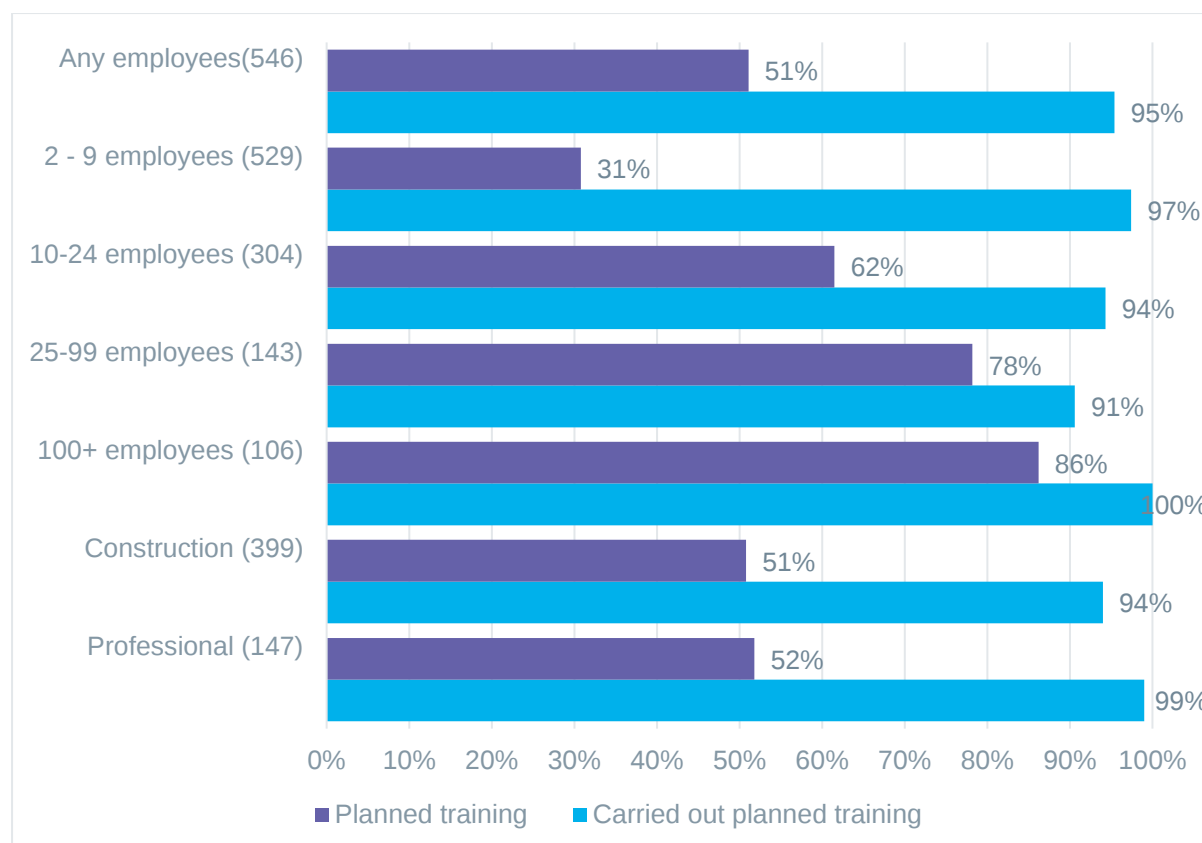
6. Workforce Training and Development

Provision of training

Respondents were asked if they had planned training in the past two years, and if that training was carried out (Figure 38). Only around half of all employers had planned to undertake any training and, of that number, generally, employers carried out a high proportion (over 90%) of planned training. The larger the business, the more likely they were to have planned any training. The proportion of businesses in the construction and professional services sectors who planned training was almost equal: 51% and 52%, respectively.

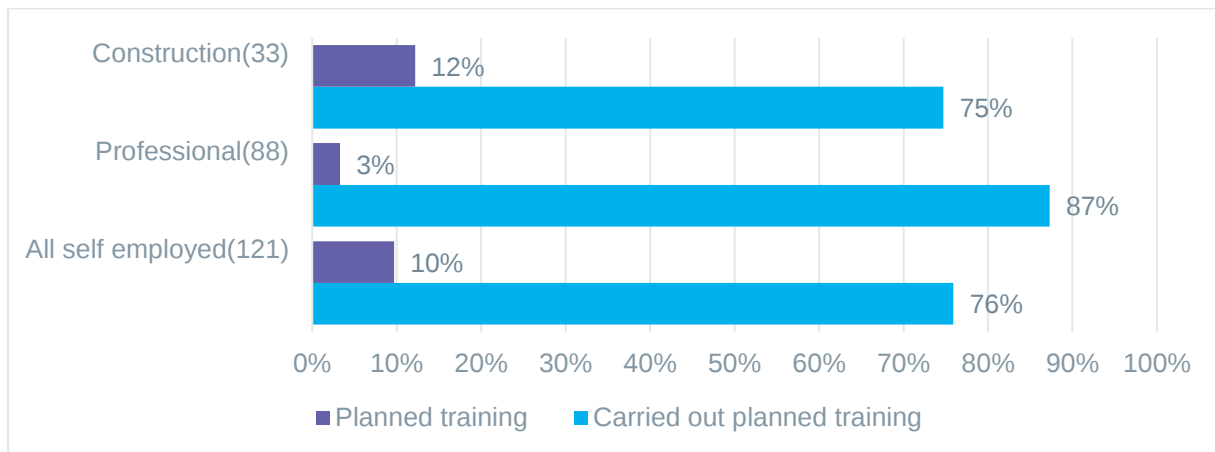
Across the nations, employers in Scotland were more likely to plan training (56%) compared to England (51%), Northern Ireland (51%) and Wales (42%). However, employers in Wales and Northern Ireland were more likely to have carried out the planned training than employers in England and Scotland.

Figure 38: Employers planning/carrying out training



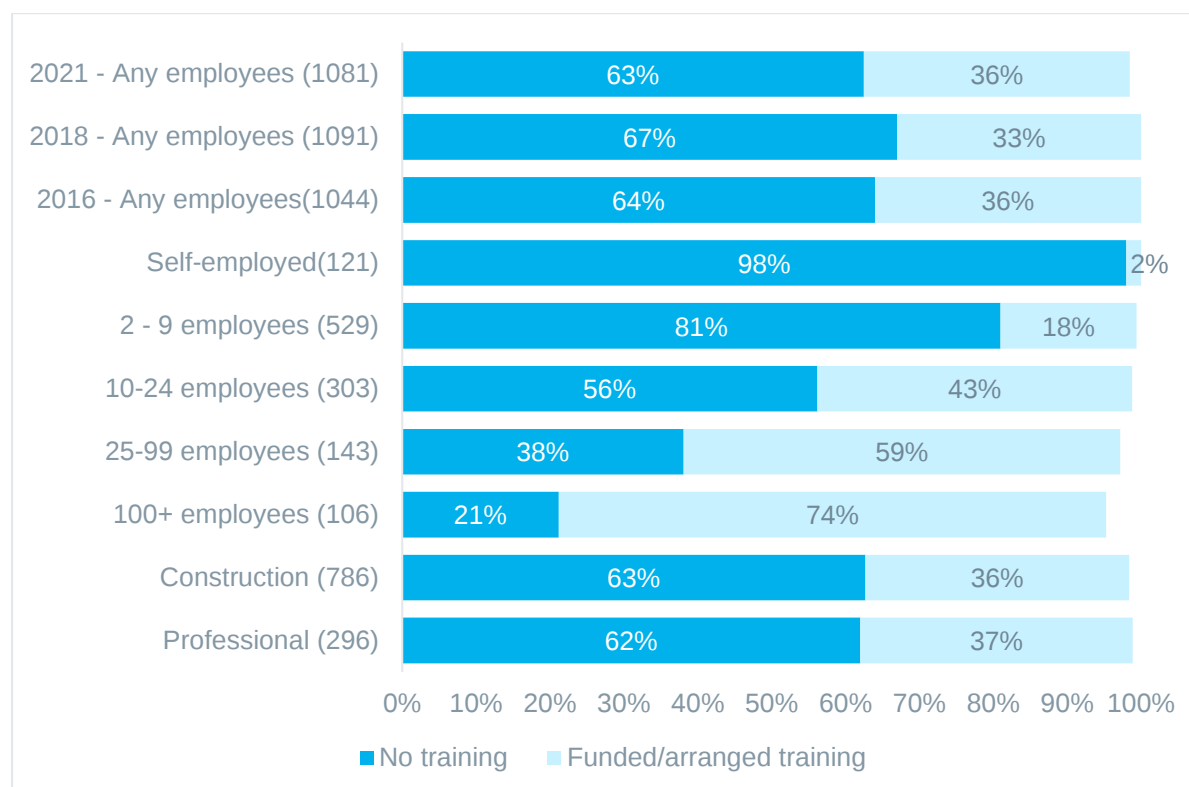
Self-employed individuals were generally much less likely to have planned training and were also less likely to have carried out any planned training (Figure 39), with only 10% planning training and 76% carrying out the planned training.

Figure 39: Self-employed planning/carrying out training



All employers – regardless of whether they had planned training or not – were asked if they funded or arranged any training in the last 12 months (Figure 40). Overall, 36% had carried out training. This compares favourably to previous years, when in 2018, 33% of employers carried out training and in 2016, 36%.

Figure 40: Proportion of businesses that have funded or arranged any training in the last 12 months, by sector and size (all respondents)



As with the responses to the earlier question on whether training had been planned, the proportion of employers who had carried out training increases with size. Only 18% of businesses with 2-9 employees conducted training, compared with 74% of businesses with over 100 employees.

Again, the proportions of construction businesses and professional services carrying out training is almost equal (63% and 62%, respectively).

Employers in Scotland conducted more training than other nations (39%), compared with 25% in England, 29% in Northern Ireland and 37% in Wales.

Self-employed individuals were the least likely to undertake training, with only 2% having done so in the previous 12 months.

On-the-job training

All employers were asked if they had conducted any on-the-job training in the previous 12 months. Of these employers, 36% responded positively.

An almost equal number of construction and professional services business had conducted on-the-job training: 36% and 37%, respectively.

In line with responses to earlier questions, employers in Scotland were more likely to have conducted on-the-job training (42%). Thirty-eight employers in Northern Ireland conducted this type of training, 36% in England and 28% in Wales.

Respondents were also asked which roles had received on-the-job training (Figure 41). The largest group to receive on-the-job training in the construction sector was plant and machine operatives (45%), followed by labourers and general operatives (37%) and bricklayers (33%). Only a small proportion of 'cross sector' occupations received training: 11% of HR, legal and business professionals and 8% of managers/directors.

In the professional services sector, mechanical engineers were most likely to have received on-the-job training (50%), followed by technicians (47%) and 'other' engineers (46%).

Overall, occupations in the professional services sector received more training than in the construction sector.

Figure 41: Proportion of employees within occupations that have received on-the-job training in the last 12 months (all employees)

Construction		Professional services	
	%		%
Plant and machine operatives	45	Mechanical engineers	50
Labourers and general operatives	37	Technicians	47
Bricklayers	33	Other engineers	46
Carpenters / joiners	32	Architects	45
Plumbers	30	Landscape designers	43
Roofers	30	Town planners	38
Electricians	25	Building surveyors	38
Plasterers	25	Quantity surveyors	33
Technical staff	24	Civil engineers	32
Floorers	23	Building service engineers	27
Painters / decorators	22	Architectural technologists	20
Supervisors	15	Project managers	16
Scaffolders	11		
Cross-sector occupations			
Managers/directors	8	Administrative staff	13
HR, legal and business professionals	11	Staff with no one main role or who multitask	9

Employers were also asked, on average, how many days on-the-job training and development they had arranged for each person receiving the training. Overall, the average number (mean) was 8.4 days. The average was slightly higher amongst construction businesses (8.6) than professional services (8.1). Across the nations, the highest average number of days on-the-job training was in Wales (9.1) compared with England (8.7), Northern Ireland (4.2) and Scotland (5.8).

Off-the-job training

Slightly fewer employers conducted off-the-job-training in 2021 than on-the-job: 26%. Construction businesses were slightly more likely to conduct off-the-job training (27%), compared with professional services (24%).

In terms of national differences, more employers in Scotland conducted off-the-job (39%) compared with those in Wales (37%), Northern Ireland (29%), with England having the least (25%).

Amongst construction businesses, more plumbers received off-the-job training (65%) than any other group, followed by electricians (53%) and bricklayers (37%) (Figure 42). For the professional services businesses most training was aimed at landscape designers (42%) followed by town planners (33%) and quantity surveyors (32%). Note: these findings are based on very low numbers of responses.

Figure 42: Proportion of employees within occupations that have received off-the-job training (all employees)

Construction		Professional services	
	%		%
Carpenters / joiners	24	Architects	15
Bricklayers	37	Architectural technologists	17
Painters / decorators	24	Building service engineers	11
Plasterers	23	Civil engineers	13
Roofers	16	Mechanical engineers	25
Floorers	7	Other engineers	26
Scaffolders	22	Town planners	33
Plant and machine operatives	36	Technicians	25
Electricians	53	Building surveyors	11
Plumbers	65	Quantity surveyors	32
Labourers and general operatives	26	Landscape designers	42
Supervisors	24	Project managers	17
Technical staff	35		
Cross-sector occupations			
Managers/directors	6	Administrative staff	9
HR, legal and business professionals	6	Staff with no one main role or who multitask	6

Employers were asked, on average, how many days off-the-job training and development they had arranged for each person receiving the training. Overall, the average number (mean) was 8.9 days. The number was slightly higher for construction employers (9.2) than for those in professional services (8.4). Across the nations, employers in Wales provided the most days (13.6 days), followed by Scotland (9.8), England (8.7) and Northern Ireland (4.1).

Types of training provision

Employers who conducted training in the last 12 months were asked which type of training they had provided to their workforce (Figure 43). The most common types of training were provided by a private training provider (72%) or took the form of learning or training from a more experienced worker on-the-job (70%), or other off-the-job training such as courses of formal instruction (70%). This broadly reflects the profile in 2018 and 2016, with the exception of the number of employers who had provided an 'other' form of off-the-job training; this could be due to the impact of the pandemic which restricted formal on-the-job training. That said, 40% of employers provided training delivered by an FE college, compared with 19% in 2018 and 20% in 2016, however it is not clear whether this was mainly on-the-job or off-the-job training. During the pandemic colleges diversified their offer to deliver more online learning.

Self-employed individuals were most likely to have their training delivered by a private training provider (79%) and were more likely to conduct self-learning (71%).

Figure 43: Types of training provided—prompted, multiple response (where funded/arranged training)

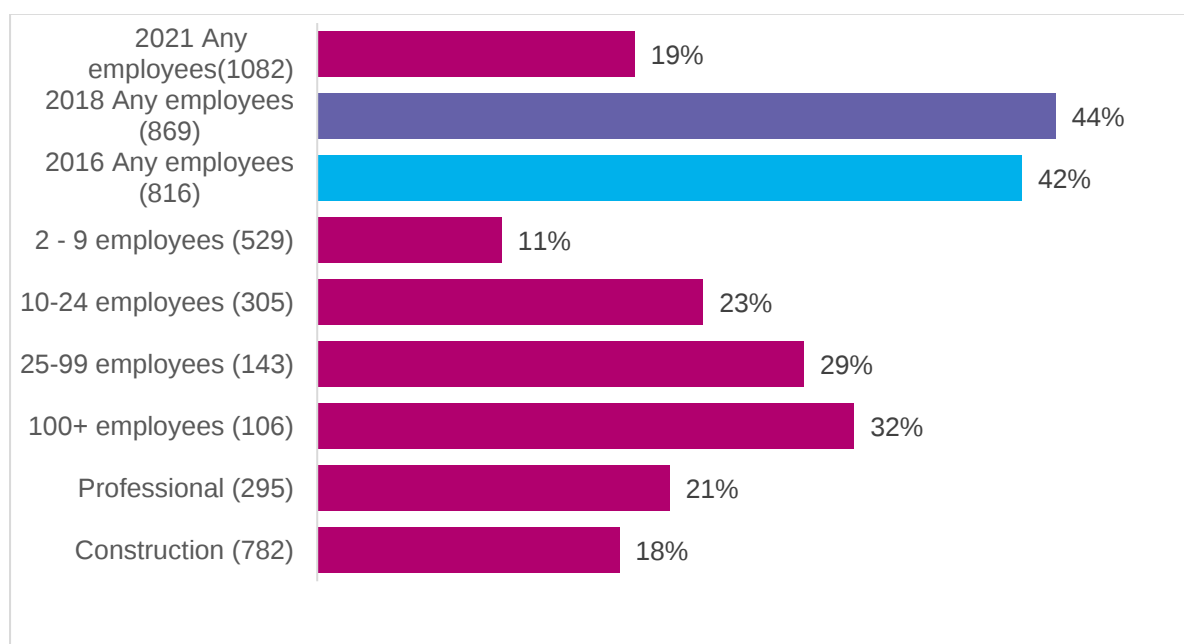
	2021 employers	2018 employers	2016 employers	Construction	Professional services	Self-employed	2-9	10-24	25-99	100+
Column percentages										
Training delivered by an FE college	40%	19%	20%	46%	23%	11%	31%	26%	47%	69%
Training delivered by Higher Education	11%	12%	12%	12%	9%	-	6%	4%	11%	31%
Training delivered by the NCC) [NORTHERN IRELAND: CITB-NI]	10%	13%	12%	12%	6%	-	2%	9%	14%	23%
Training provided by any other private training provider	72%	70%	66%	69%	79%	44%	62%	69%	79%	88%
Training provided by a manufacturer or supplier	33%	-	-	30%	42%	13%	13%	32%	46%	58%
Other off-the-job training such as courses or formal instruction	70%	54%	55%	72%	67%	25%	58%	78%	71%	76%
Learning or training from a more experienced worker on-the-job	70%	69%	71%	73%	62%	44%	53%	76%	83%	71%
Any self-learning	66%	60%	58%	64%	71%	63%	53%	69%	75%	70%
Training provided by a Professional Institution	47%	52%	50%	45%	52%	44%	58%	32%	50%	54%
Training delivered by/through an industry federation/ body e.g., FMB?	27%	36%	26%	24%	35%	33%	34%	22%	26%	28%

Qualifications-based training

The proportion of businesses that have funded NVQs fell drastically in 2021, with only 19% providing NVQs in comparison with 44% in 2018 and 42% in 2016 (Figure 44). This may be due to the impacts of the pandemic, with assessors not being able to access sites. Changes to apprenticeships may also be a factor, with new qualifications, including Diplomas, replacing NVQs (employers can sometimes tend to conflate apprenticeships with NVQs).

In line with other findings around the provision of training, the larger the employer, the more likely they are to provide NVQs. Just 11% of employers with 2-9 employees provide NVQs, compared with 32% of employers with 100+ employees.

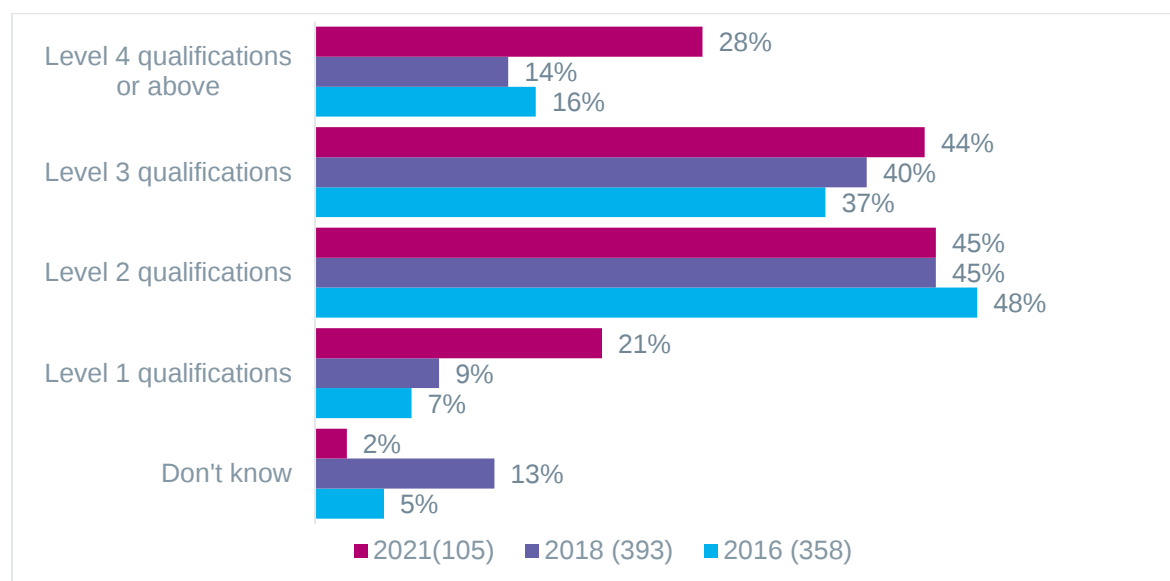
Figure 44: Proportion of businesses that have trained towards nationally recognised qualifications in the last 12 months, by sector and size (where funded/arranged training)



Employers were also asked about the level of NVQ they offered (Figure 45). The pattern differs slightly to previous years. Whilst similar numbers offer Level 3 NVQs and Level 2 NVQs, a higher proportion offer Level 4 and Level 1. This suggests that, whilst fewer employers overall are funding NVQs, those that do are funding multiple levels.

Of employers who offer NVQs (105 employers), only 6 are professional services businesses. Of construction employers, all levels of NVQ are offered by businesses of different sizes. The only exception is businesses with 2-9 employees: none of the respondents of this size offered Level 1 NVQs.

Figure 45: Level of NVQs/SVQs worked towards (employers that have trained towards NVQs/SVQs)

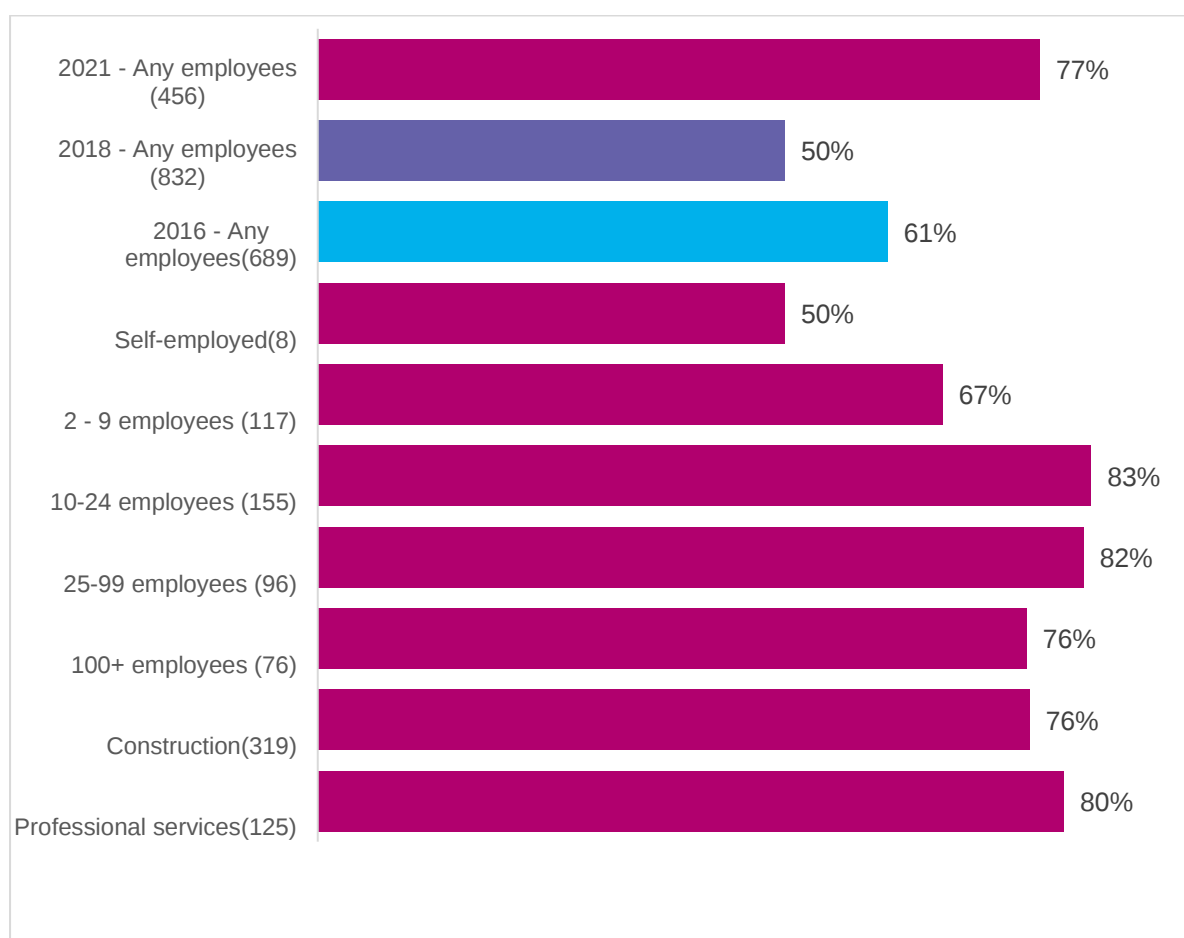


Assessment of training

Of employers that offering training, the survey also asked whether the business formally assesses whether the training and development impacts on trainees' performance (Figure 46). Overall, in 2021, just over three quarters (77%) state that they assess training in this way, compared to 50% in 2018 and 61% in 2016.

The proportions are highest amongst businesses with 10-24 employees and 25-99 employees.

Figure 46: Proportion of businesses that formally assess whether training and development impacts on trainees' performance, by sector and size (where funded/arranged training)



Barriers to (more) training

Employers who funded or arranged training in the previous 12 months were also asked if there were any barriers to them offering more training (Figure 47). Of those that responded to this question, 68% suggested that their staff are full proficient. Slightly more construction employers (69%) stated this than professional services (65%).

Other responses were that employees are too busy (13%) or that managers lacked the time to organise training (11%).

Figure 47: Barriers to offering (more) training

	All businesses with employees or subcontract staff	Construction	Professional
I/All our staff are fully proficient	68%	69%	65%
No particular reason	12%	9%	18%
Employees are too busy to go on training courses	13%	13%	13%
Managers have lacked the time to organise training	11%	12%	9%
Employees are too busy to give training	3%	3%	2%
Don't know	2%	3%	0%
The start dates or times of the courses are inconvenient	1%	1%	0%
The quality of the courses or providers locally is not satisfactory	1%	1%	0%
I don't know what provision is available locally	1%	2%	0%
External courses are too expensive	1%	2%	0%
Other reasons	14%	12%	17%

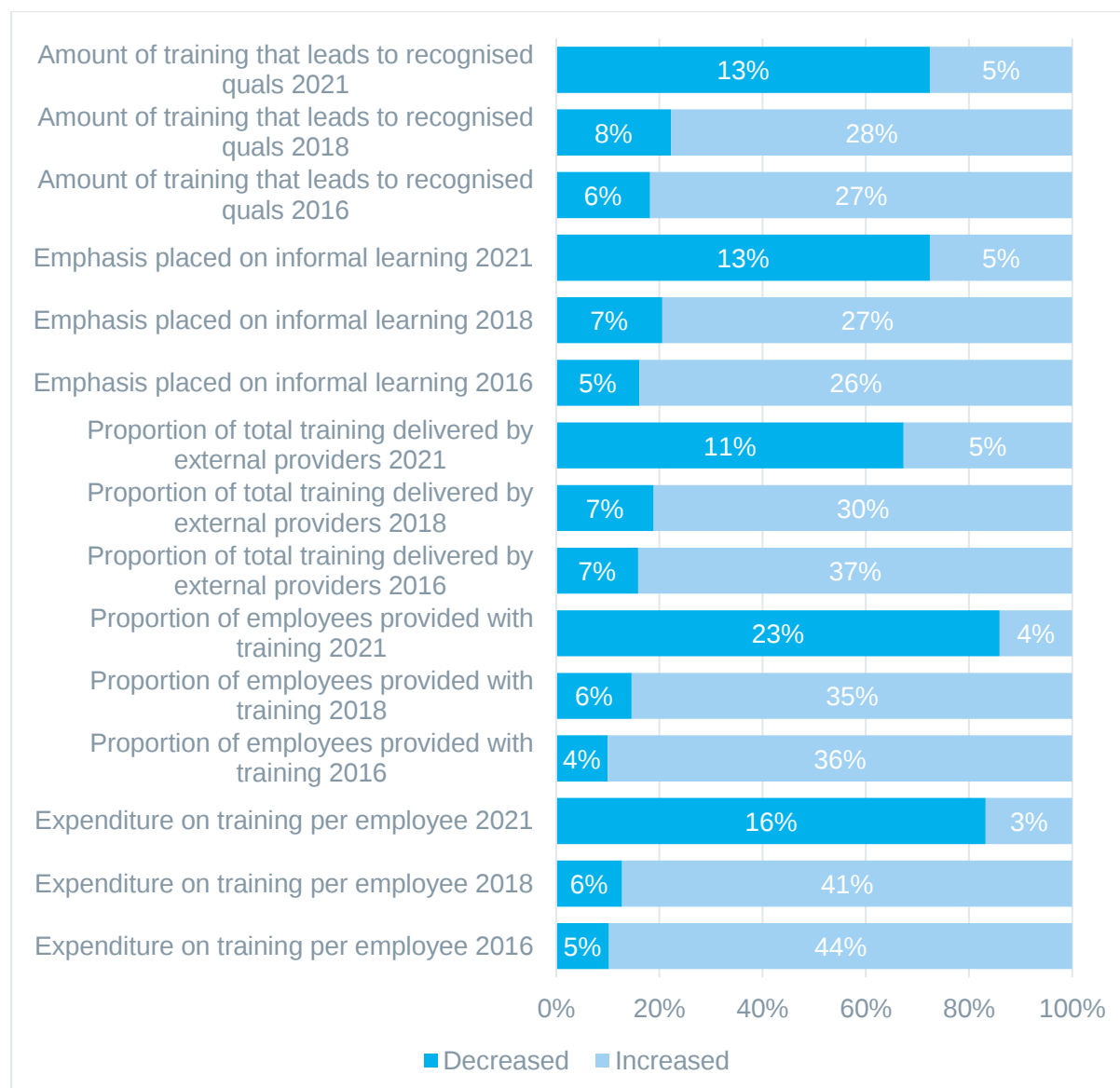
Trends in training and training expenditure

The proportion of employers providing training that leads to a qualification in 2021 has dropped slightly from 2018 levels, with 13% of respondents reporting a drop compared to 8% in 2018 (Figure 48). Only 5% of employers stated that this increased, compared to 28% in 2018. This could be due to limited access during the pandemic.

However, overall, the emphasis placed on informal learning has dropped.

Overall, the proportion of employers provided with training decreased by 23% in 2021, compared to between 4-6% between 2014 and 2018. Again, this is likely due to limited accessibility during the pandemic. In line with this, expenditure on training dropped in 2021, with 16% saying they had decreased spending in training, compared with 6% of employers in 2018.

Figure 48: Trends in training expenditure and delivery (employers that have provided training in the last 12 months)



7. Apprenticeships

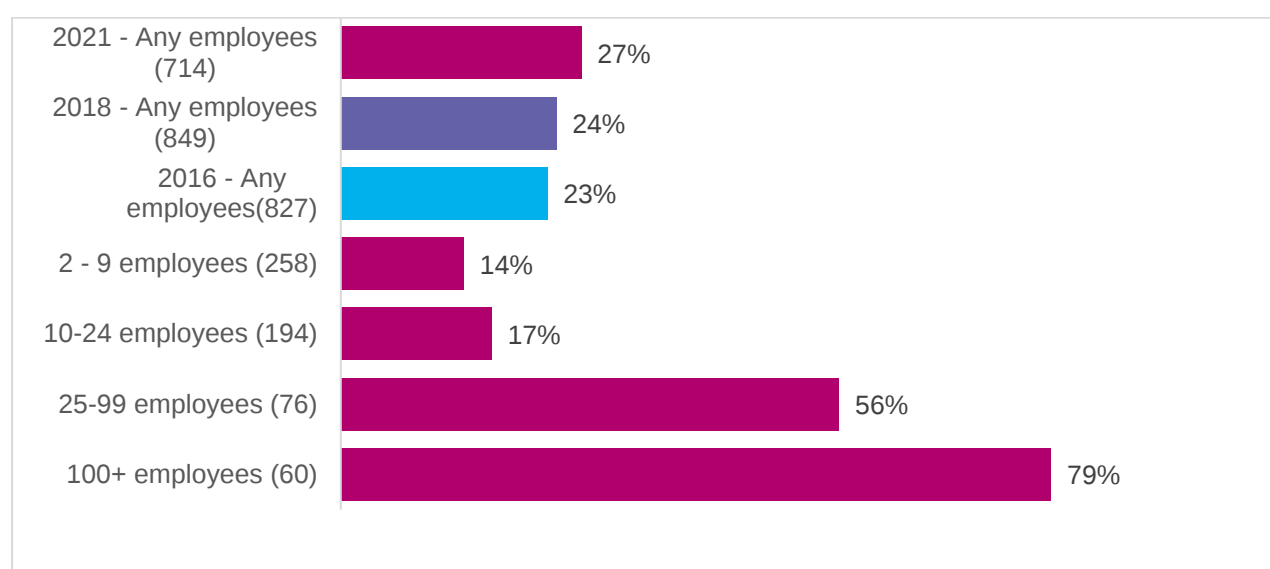
Take-up of Apprenticeships

Overall, 27% of employers in the construction sector employed apprentices in 2021 (Figure 49). This is broadly in line with the findings in 2018, of 24% and 2016, of 23%. The trend is an increase in the number of apprentices being employed.

The largest employers (100+ employees) are more likely to employ apprentices.

Amongst the nations, employers in Scotland are more likely to employ apprentices (38%) compared with England (26%), Northern Ireland (19%) and Wales (18%).

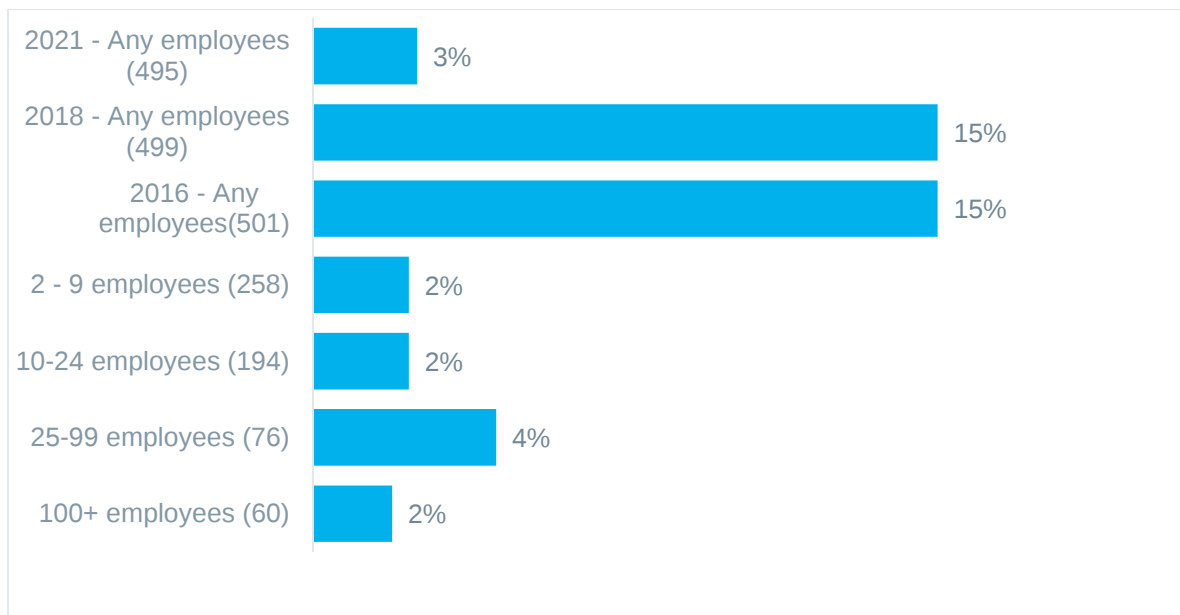
Figure 49: Employ Apprentices (all construction employers)



Employers who did not currently employ an apprentice were asked if they have offered them in the past (Figure 50). Only 3% of employers answered positively to this question, compared with 15% in 2018 and in 2016. This may be partly explained by the fact that the number of employers currently employing apprentices has increased slightly during this period.

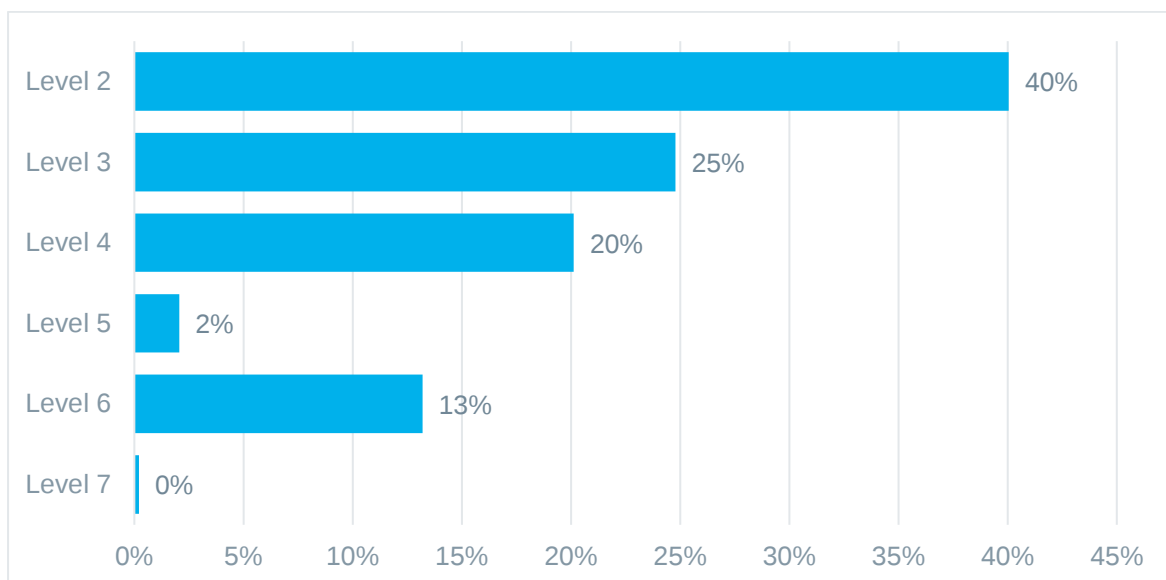
On a UK basis, employers in Northern Ireland were most likely to say they have offered apprenticeships in the past, but do not currently (12%).

Figure 50: Previously offered Apprenticeships (all construction employers who do not have any apprentices)



In line with the nationally available apprenticeship statistics, where apprentices are employed in construction businesses, most are undertaking a Level 2 apprenticeship (40%), followed by a level 3 apprenticeship (25%) (Figure 51).

Figure 51: Employment of apprentices by level (all employers) (base 163)



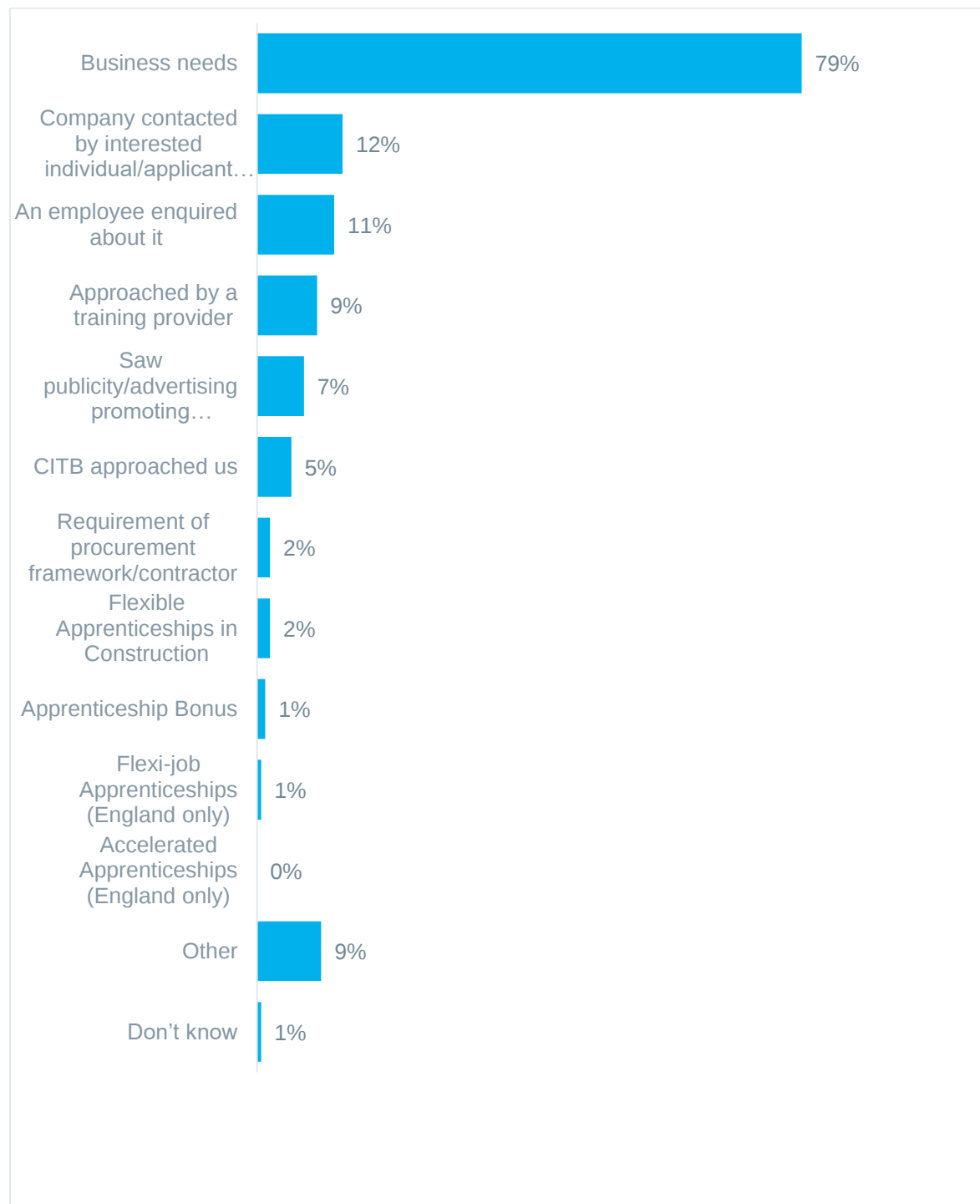
Reasons for offering Apprenticeships

Employers' reasons for offering apprenticeships are broadly similar, with most (79%) suggesting that they employ apprentices due to business needs (Figure 52).

The second most common response is that the business was contacted by an interested individual or applicant to be an apprentice (12%).

Businesses with 100+ employees were more likely than businesses of other sizes to identify business need. Smaller businesses were more likely to have been asked about apprenticeships by an employee, or to have been contacted directly by an interested individual.

Figure 52: Reasons for offering Apprenticeships – unprompted, multiple response (all construction employers that have or offer apprenticeships (base 161))



In 2021 new questions were asked specifically of employers in Scotland and Wales, to identify their reasons for employing apprentices (Figure 53). The findings reflect those for England, with around 80% suggesting business needs are the main driver.

In Scotland 'Cost Free Apprenticeships' affected the decisions of 7% of employers; in Wales, drivers included a contact from Business Wales (9%) and a contact from Careers Wales (9%).

Figure 53: Reasons for offering Apprenticeships - Scotland and Wales

Scotland		Wales	
Business needs	81%	Business needs	79%
Company contacted by interested individual/applicant to be an Apprentice	9%	Saw publicity/advertising promoting Apprenticeships	9%
An employee enquired about it	9%	Company contacted by interested individual/applicant to be an Apprentice	9%
Cost Free Apprenticeships in Scotland	7%	Contact from Business Wales	9%
		Contact from Careers Wales	9%
		Information from Qualifications Wales on new apprenticeship qualifications	4%
		Approached by a training provider	4%
		The Welsh Government apprenticeship advertising campaign	4%

When it comes to the benefits of apprenticeships, the most common answer is that they allow the business to train people the way they want or mould them to how they do things (74%) (Figure 54). This reason is more prevalent amongst larger businesses.

The second most common response is that apprentices improve or maintain skill levels (58%). Larger businesses were more likely to select this option. Conversely smaller businesses were more likely to say that apprenticeships increase productivity: 51% of businesses with 2-9 employees and 54% of businesses with 10-24 employees.

Diversity is a more important factor for the largest businesses, with 34% identifying this as a benefit.

Figure 54: Perceived benefits to offering Apprenticeships

Employees					
	Construction (166)	2-9(40)	10-24(35)	25-99 (43)	100 (48)
Allows us to train people the way we want / mould them to how we do things	74%	66%	78%	80%	72%
Improve or maintain skill levels	58%	57%	55%	50%	68%
To replace staff that are retiring / succession planning	49%	46%	49%	39%	59%
Improve productivity	45%	51%	54%	30%	48%
Easier to attract / recruit young people if offer them	31%	34%	36%	28%	28%
Corporate social responsibility / put something back into the community	18%	5%	15%	13%	36%
To create a more diverse workforce	18%	11%	10%	12%	34%
To enhance our reputation / for our corporate image	16%	2%	14%	9%	38%
Save money (cheaper to train apprentices than take on experienced workers)	6%	0%	11%	7%	5%
Other	2%	-	1%	2%	5%
Don't know	1%	-	-	-	2%

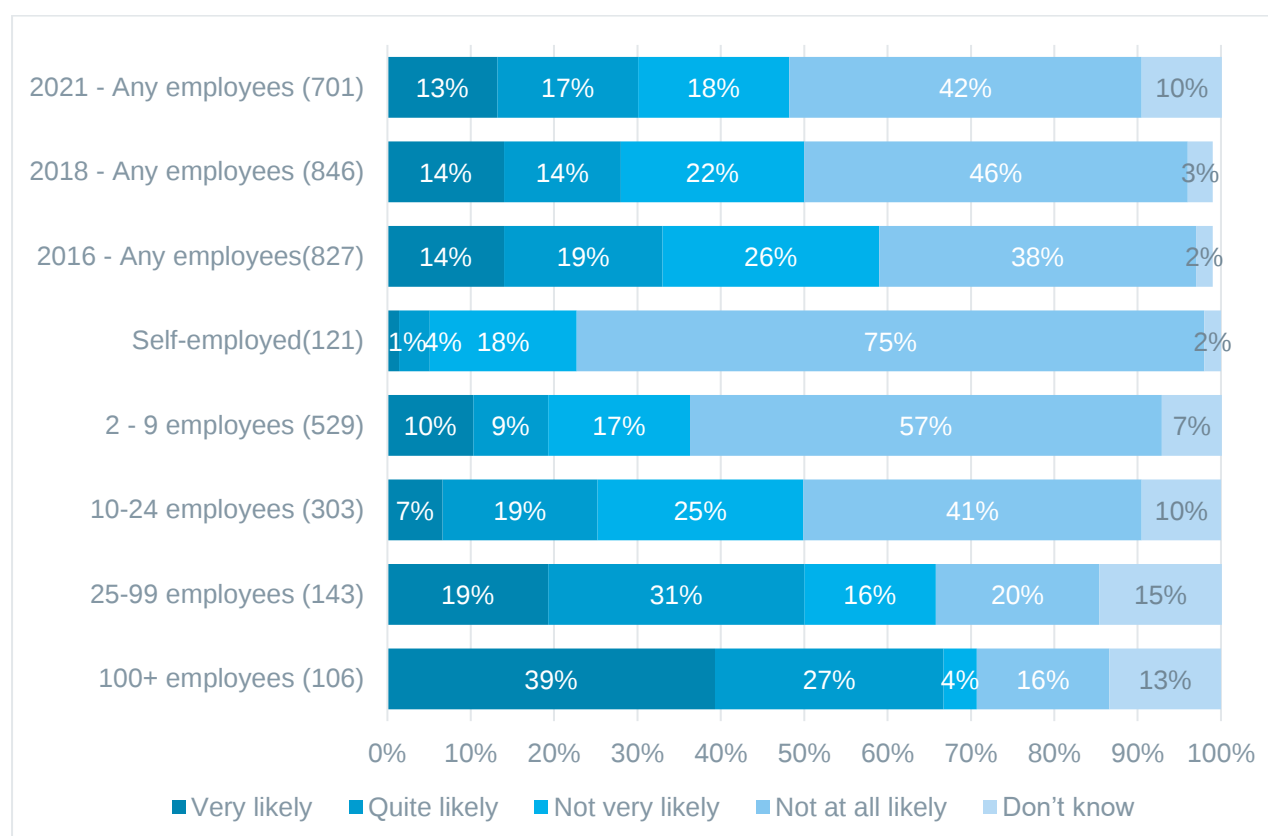
Likelihood of future provision of Apprenticeships

The likelihood of offering apprenticeships in future is similar for employers in 2021, 2018 and 2016: it has stayed about the same (Figure 55). In 2021, 30% of employers said they were likely (i.e., very likely or quite likely) to offer apprenticeships in the next 12 months, compared with 28% in 2018 and 33% in 2016.

As is the pattern with the responses to previous questions about training, likelihood increases with business size. Only 19% of businesses with 2-9 employees are likely to offer apprenticeships in the next 12 months, compared with 66% of businesses with over 100 employees.

Businesses in Scotland are more likely to offer apprenticeships than in the other UK nations (39%): 29% in England, 21% in Northern Ireland and 27% in Wales.

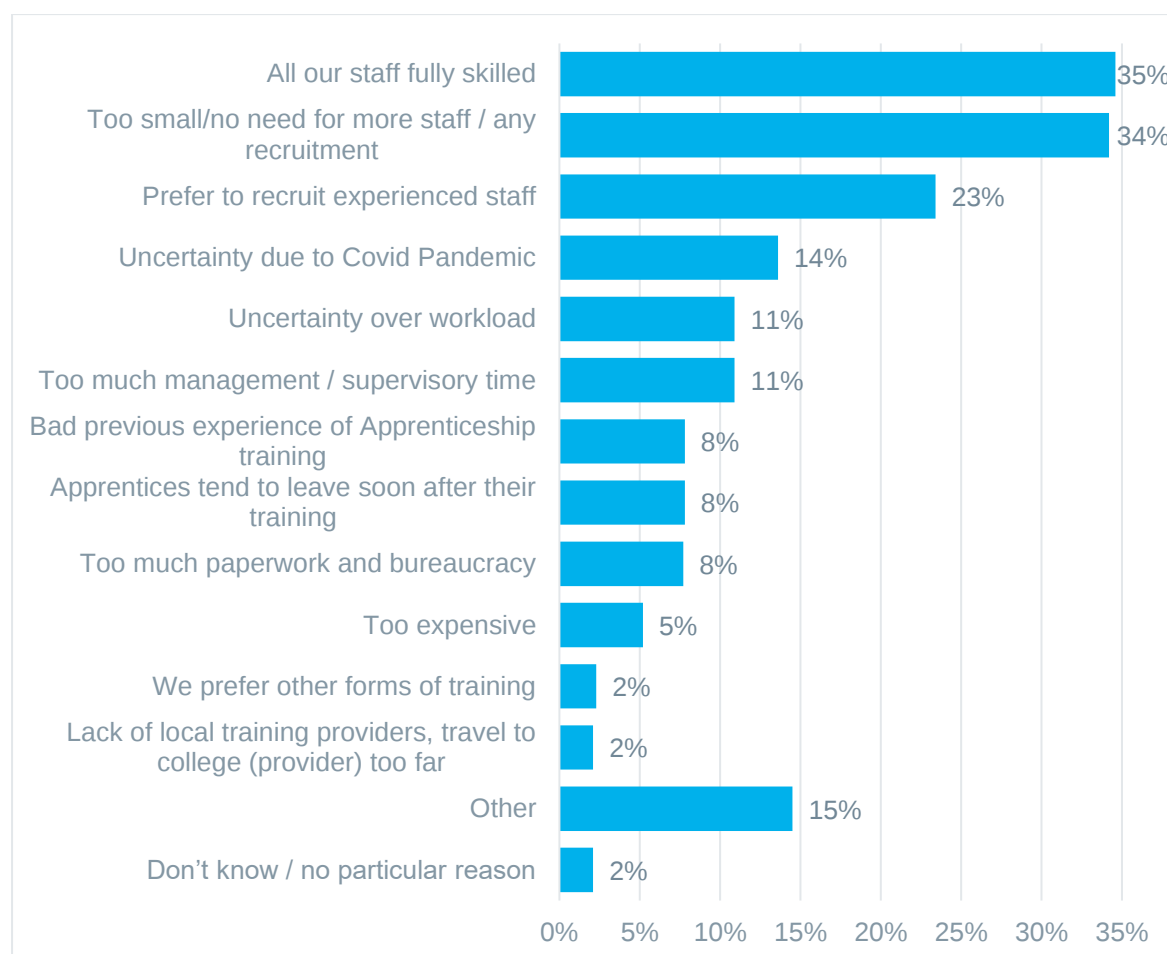
Figure 55: Likelihood of offering Apprenticeships in the next 12 months, by business size (all construction employers)



Reasons for not offering Apprenticeships

Various reasons are cited for not offering apprenticeships – the most common of which is that all staff are fully skilled (35%) (Figure 56). The second most common reason is that the business is too small or there is no need for more staff (34%), or that they prefer to recruit experienced staff (23%).

Figure 56: Reasons for not currently having Apprenticeships –unprompted, multiple response (all construction employers that do not currently employ apprentices)



Ways in which employers could be encouraged to take on Apprenticeships

Employers were also asked what would encourage them to take on an apprentice in future) (Figure 57). The findings vary depending on whether the business already has apprentices or not and whether they offer apprenticeships, or not.

- For those that currently employ apprentices, fewer respondents identified facilitating factors. The most common response was grants to support apprenticeship training (42%), followed by help with identifying potential candidates (41%);
- Those that do not currently employ apprentices would appreciate the same support: 21% and 18% respectively;
- Business that offer apprenticeships identified help with identifying potential candidates as their top option (79%), followed by initial screening of suitable candidates (69%);
- Those who do not currently offer apprenticeships would most appreciate grants to support apprenticeship training (19%) and help with identifying potential candidates (16%).

Figure 57: Ways in which construction businesses could be encouraged to take on (more) apprenticeships – prompted, multiple response (all construction employers)

	Currently employ apprentices	Do not currently employ apprentices	Offer apprenticeships	Do not offer apprenticeships
Grants to support Apprenticeship training	42%	21%	65%	19%
Help with identifying potential candidates	41%	18%	79%	16%
If it was a requirement of contracts with public sector clients	22%	7%	35%	6%
Initial screening of suitable candidates	22%	16%	69%	14%
If main contractors required it as part of their supply chain	19%	7%	37%	6%
Help with organising the process	16%	8%	64%	6%
Help in finding a suitable training provider	14%	10%	53%	8%
Using a managing agency to take away the paperwork and bureaucracy	9%	9%	33%	7%
Flexible apprenticeships	7%	3%	33%	2%
Accelerated apprenticeships	7%	3%	33%	2%
Flexi-job apprenticeships	5%	4%	33%	3%
Shared Apprenticeship Schemes which help employers to share the cost and commitment to taking on an apprentice, short term	5%	3%	54%	2%
Passing on of apprenticeship funding by larger Apprenticeship Levy payers	5%	4%	37%	2%
More co-operation with the supply chain	4%	1%	33%	1%

In 2021 this question was asked specifically of business in Scotland and Wales to try to assess the impact and/or effectiveness of nation-specific interventions. The response profile from Scotland (Figure 58) and Wales (Figure 59) broadly reflect the findings from the rest of the UK. In Scotland, grants to support apprenticeship training are the most popular option (44%), followed by help with identifying potential candidates (42%). Specific interventions did not tend to be mentioned: only 4% suggested the ‘adopt and apprentice’ scheme and no employers identified Scottish Government interventions.

Figure 58: Ways in which construction businesses in Scotland could be encouraged to take on (more) apprenticeships – prompted, multiple response

Grants to support Apprenticeship training	44%
Help with identifying potential candidates	42%
Initial screening of suitable candidates	21%
Employer Recruitment Incentives	17%
Help in finding a suitable training provider	15%
Using a managing agency to take away the paperwork and bureaucracy	6%
If it was a requirement of contracts with public sector clients	6%
Help with organising the process	6%
Passing on of apprenticeship funding by larger Apprenticeship Levy payers	6%
Shared Apprenticeship Schemes which help employers to share the cost and commitment to taking on an apprentice, with the possibility of taking one on for as short a duration as 3 months.	4%
Adopt An Apprentice	4%
If main contractors required it as part of their supply chain	2%
Current and upcoming Scottish Government interventions.	0%
More co-operation with the supply chain	0%

Amongst employers in Wales, help with identifying candidates was the common answer (48%) followed by initial screening of suitable candidates (46%). Twenty-six per cent stated they would apprentice greater support from Careers Wales/Welsh Government and 26% identifying the Bigger Welsh Government incentives for taking on an apprentice (Figure 59).

Figure 59: Ways in which construction businesses in Wales could be encouraged to take on (more) apprenticeships – prompted, multiple response

Help with identifying potential candidates	48%
Initial screening of suitable candidates	46%
Grants to support Apprenticeship training	38%
More support from Careers Wales / Welsh Government for taking on an apprentice	26%
Bigger Welsh Government incentives for taking on an apprentice	26%
Help with organising the process	25%
More information from Qualifications Wales on new apprenticeship qualifications	23%
Help in finding a suitable training provider	20%
More information from local Colleges	17%
Using a managing agency to take away the paperwork and bureaucracy	16%
Shared Apprenticeship Schemes which help employers to share the cost and commitment to taking on an apprentice, with the possibility of taking one on for as short a duration as 3 months.	7%
If it was a requirement of contracts with public sector clients	6%
More co-operation with the supply chain	3%
If main contractors required it as part of their supply chain	2%

8. Discussion

Figure 60: Constraints on output; percentages of employing businesses

	2016	2018	2021
No current constraint	44%	49%	5%
Uncertainty of demand is a constraint	17%	10%	26%
Labour shortage is a constraint	4%	11%	32%
Any constraint anticipated in the next 12 months	66%	73%	96%
Uncertainty of demand will be a constraint	21%	25%	29%
Labour shortage will be a constraint	7%	14%	33%

Far more respondents in the 2021 survey compared with previous years anticipate constraints on output (Figure 60). This is due to a great extent to concerns over supply of raw materials which is an issue for around 60% of respondents in 2021, compared to about 3% in previous surveys. Some respondents went on to explain that materials are available but at increased prices and with long lead times.

Labour shortages are a constraint experienced by almost a third (32%) of respondents in 2021, a proportion which has trebled since 2018, and which also trebled between 2016 and 2018.

The pattern of increase is repeated for anticipated constraints, with a third (33%) of 2021 respondents anticipating labour will be a future constraint compared with 14% of 2018 respondents.

Uncertainty of demand is perceived as a constraint for around a quarter (26%) of 2021 respondents this compares with the 2018 figure of 11%.

The current level of uncertainty of demand was anticipated by respondents in 2018, where 25% said demand would be a future constraint.

Few respondents to the 2021 survey predict an unconstrained future, 96% predict future constraints compared to around three quarters (73%) in 2018. This increase of around a quarter of respondents predicting constraints could be at least in part due to uncertainties generated by the pandemic.

Figure 61: Employment, recruitment and skills indicators (percentages of employers)

	2016	2018	2021
Employment increased in last 12 months	24%	25%	19%
Employment decreased in last 12 months	10%	11%	5%
Tried to recruit skilled labour in last 12 months	46%	46%	41%
Recruited any staff in last 12 months	40%	40%	38%
Had shortage of skilled labour in last 12 months	18%	18%	13%
Had hard to fill vacancies in last 12 months	47%	47%	60%
Have current skills gaps	20%	20%	33%

Around a fifth (19%) of employers have seen increases in employee numbers over the last 12 months, while 5% have seen numbers fall (

Figure 61). This compares with figures of 25% and 11% in 2018. The proportion of employers seeing numbers fall is around half that for previous surveys, the job retention (furlough) scheme which was in place until the last few days of the survey may have distorted this figure.

Employers predicting increases, minus employers predicting decreases is 14%, this figure is the same for 2021, 2018 and 2016.

The proportion of employers trying to recruit skilled labour has fallen only slightly (by 5%) from 2016 and 2018 levels of 46%. The picture for employers who have recruited any staff is similar, to previous years, differing only by 2%.

Only 13% of employers have experienced a shortage of skilled labour, this is 5% less than previous years and may in part be due to many employers being constrained by supply of materials.

Employers with hard to fill vacancies have increased by 13% on previous surveys, this could be in part due to the pandemic restricting recruitment, but it is perhaps worth noting that in previous surveys 'hard to fill vacancy' was not defined for respondents.

The proportion of employers with skills gaps remained constant at 20% from 2016 to 2018 but has risen to 33% in the 2021 survey. The main reason given for skills gaps is that staff are still training or that they lack experience. This indicates a higher proportion of new staff than in previous surveys alongside the pandemic's effect of reducing opportunities for gaining experience cited by some 2021 respondents.

Figure 62: Apprenticeships and training indicators (percentages of employers)

	2016	2018	2021
Employs apprentices	23%	24%	27%
Trained any staff in last 12 months	64%	67%	42%
Supplied off-the-job training in last 12 months	53%	59%	26%
Supplied on-the-job training in last 12 months	43%	47%	36%
Average days in off-the-job training	6	7	8

All indicators of apprenticeships and training showed positive growth between 2016 and 2018. The marked difference in the 2021 survey is that the proportion of employers training any staff has fallen from 67% in 2018 to 42% in 2021 (

Figure 62). This is at least in part due to the pandemic shifting employer priorities to more immediate concerns and the fact that some staff were furloughed. Employers also spoke of difficulties accessing training during the pandemic particularly in Further Education.

The growth in average employee days in off-the-job training has continued the steady growth observed in previous surveys, though the proportion of employers offering off-the-job training has fallen slightly from 59% in 2018 to 55% in 2021.

Appendix: Data weighting

Figure 63: Sample profile – self-employed individuals

	n. interviews achieved	% of all interviews achieved	n. weighted sample	% of population	Weighting factor applied
Construction	97	80%	82	68%	0.84
41 – Construction of buildings	19	16%	40	33%	2.10
42 – Civil engineering	5	4%	4	3%	0.78
43 – Specialised construction activities	71	59%	38	31%	0.54
Other construction	2	2%			
Professional services	24	20%	39	32%	1.64
71 – Architectural and engineering activities; technical testing and analysis	24	20%	36	29%	1.48
74 – Other professional, scientific and technical activities	-	-		3%	
Other Professional services	-	-			
England	97	80%	105	87%	1.08
Northern Ireland	5	4%	3	2%	0.59
Wales	8	7%	4	3%	0.52
Scotland	11	9%	8	7%	0.77
East Midlands	5	4%	10	8%	1.95
East of England	5	4%	15	12%	2.93
London	14	12%	21	17%	1.47
North East	4	3%	5	4%	1.21
North West	10	8%	10	8%	0.96
South East	22	18%	24	20%	1.10
South West	16	13%	8	7%	0.53
West Midlands	10	8%	6	5%	0.60
Yorkshire and Humber	11	9%	7	6%	0.66
UK	121	100%	121	100%	1.00

Figure 64: Sector and size of the weighted employer sample; numbers

	2-9 employees	10-24 employees	25-99 employees	100+ employees	Total
Construction	737	56	20	4	818
41 – Construction of buildings	246	18	6	1	271
42 – Civil engineering	74	8	5	1	88
43 – Specialised construction activities	406	31	10	1	448
Other construction					
Professional services	227	24	11	3	265
71 – Architectural and engineering activities; technical testing and analysis	196	21	10	2	230
74 – Other professional, scientific and technical activities	30	2	1	0	33
Other professional services					
UK	963	81	32	7	1082

Figure 65: Sample profile – employers

	n. interviews achieved	% of all interviews achieved	n. weighted sample	% of population	Weighting factor applied
Construction	818	76%	776	72%	0.95
41 – Construction of buildings	271	25%	332	31%	1.23
42 – Civil engineering	88	8%	74	7%	0.85
43 – Specialised construction activities	448	41%	369	34%	0.82
Other construction	11	1%			
Professional services	264	24%	307	28%	1.16
71 – Architectural and engineering activities; technical testing and analysis	229	21%	277	26%	1.21
74 – Other professional, scientific and technical activities	33	3%	30	3%	0.91
Other professional services	2	0%			
England	803	74%	938	87%	1.17
Northern Ireland	97	9%	30	3%	0.31
Wales	93	9%	40	4%	0.43
Scotland	89	8%	75	7%	0.85
East Midlands	49	5%	71	7%	1.45
East of England	66	6%	125	12%	1.89
London	111	10%	189	17%	1.70
North East	46	4%	32	3%	0.70
North West	104	10%	101	9%	0.97
South East	139	13%	175	16%	1.26
South West	127	12%	97	9%	0.77
West Midlands	82	8%	79	7%	0.96
Yorkshire and Humber	79	7%	70	6%	0.89
UK	1082	100%	1082	100%	1.00

Employment weighting

Figure 66: Sample profile – employers

	Unweighted % of workforce	% of employee population	Weighting factor applied
Construction	81%	68%	0.84
41 – Construction of buildings	35%	28%	0.81
42 – Civil engineering	7%	14%	1.94
43 – Specialised construction activities	39%	26%	0.67
Professional services	19%	32%	1.70
71 – Architectural and engineering activities; technical testing and analysis	16%	30%	1.89
74 – Other professional, scientific and technical activities	3%	2%	0.66
2-9 employees	5%	37%	7.46
10-24 employees	9%	14%	1.59
25-99 employees	18%	17%	0.92
100+ employees	69%	32%	0.46
England	75%	85%	1.14
Northern Ireland	6%	2%	0.36
Wales	7%	4%	0.50
Scotland	11%	9%	0.83
UK	100	100	1.0

