Labour Market Intelligence Study

Quarrying, mineral products and mining

Findings from employers operating in Scotland

February 2017

Pye Tait Consulting
Royal House, 110 Station Parade, Harrogate, HG1 1EP
Tel: 01423 509433 Fax: 01423 509502
Email: info@pyetait.com Website: www.pyetait.com

Cert No: 76000/GB/Q

Table of Contents

Figures

Tables

1. Executive summary

This research was commissioned by MP Futures to provide reliable and up-to-date labour market intelligence (LMI) on the quarrying, mineral products and mining sector.

The research consisted of an online survey of relevant companies in the sector. Over 330 contacts were provided by MP Futures, the British Aggregates Association (BBA) and the Mineral Products Association (MPA). An additional c.1,370 contacts were sourced by Pye Tait from a reputable national database[1]. All contacts were emailed a link to the online survey and invited to participate.

In total 41 completions were received from employers operating in Scotland. Of those:

- 26 companies operate in Scotland as well as other parts of the UK
- 15 companies operate in Scotland only.

1.1 Industry profile and workforce

The majority of survey respondents (46%) are involved in the quarrying of stone, sand and clay as their main business activity: 12% in the construction of roads and railways, with a further 5% in cutting, shaping and finishing of stone.

The 41 companies responding to the survey employ a total of 17,901 individuals, with the average company employing 459 workers (mean). Most of the workforce is employed full time (85%) and the majority of employees (57%) are over 45 years of age. The sector is dominated by male workers, representing over 85% of all employees.

Approximately 15% have employed oversees migrants in the past. Approximately 40% currently have staff vacancies, however the sector has a fairly low level of employment churn with an average of 11% staff turnover annually, factors which, taken together, indicate potential growth. Indeed, approximately 40% of respondents expect their workforce to grow in the next 18 months.

Employers report a number of difficulties however when recruiting, particularly in attracting those with technical, operational and engineering skills and those involved in driving. The most difficult-to-recruit roles include professional occupations (85% of employers experiencing problems), followed by 'process, plant and machine operatives' (79%).

Causes of hard-to-fill vacancies include a lack of interest in the types of roles, low numbers of applicants with the required skills and a lack of workers with appropriate work experience.

[1]The database was filtered for companies operating in the relevant Standard Industrial Classification (SIC) codes. The code descriptions are listed Appendix 1 under 'Respondent profile'.

1.2 Skills and training

In general, employers rate the skill-levels of their employees fairly highly. On a scale of 1 to 10 (where 1 is 'unskilled' and 10 is 'perfectly skilled'), most employers rate their staff between 6 and 8 on a range of different skills. Skills in health and safety and in LGV operations are rated most highly, with 'marketing' and 'design' receiving the lowest ratings.

The area of greatest training demand however is in leadership and management, with more than 20% of respondents identifying an urgent need. Supervisory training is also highlighted. Areas of the lowest predicted demand include contractors' safety passport training

In terms of future skills needs, 63% of employers identify 'general IT skills' as becoming more important in future. A relatively high proportion of generic skills are also identified as having high future importance, including health and safety and, planning and organisation skills

The extent to which employers currently provide training varies by occupation. Roles most typically receiving training on a regular basis include 'process, plant and machine operatives' followed by 'skilled trades occupations.'

Most training is delivered in-house, but there is a great deal of variation by job role when it comes to the method of training delivery. For example, whilst in-house training is most common for 'elementary occupations', using a local private training provider is most popular amongst employers when training 'professional occupations'. Over 40% of employers will use provision offered by a trade body or professional institute for 'managers, directors and senior officials'. Of all occupational groups, 'process, plant and machine operatives' benefit from the greatest variety of provision.

Most employers do not offer accredited vocational training. Of those that do, Level 2 qualifications are most typical, accounting for 66% of all achievements.

When it comes to satisfaction with training, employers report the highest levels of satisfaction with in-house training. In terms of external provision, employers are most satisfied with local, private training providers. Employers have mixed views of large, national private training providers.

Accredited sector-specific vocational qualifications – where they are used – tend to be viewed positively, with 46% of employers suggesting these qualifications have helped to upskill their employees. MP awards' qualifications are viewed more positively than other AOs' in this regard.

Barriers to training faced by employers include: difficulty being able to release staff from the business (73% of employers), difficulty finding training providers (39%) and the cost of training (37%).

1.3 Careers, young people and schools

Over half (59%) of employers have recruited a young person in the last three years, and more (76%) would consider doing so in future. This suggests there may be barriers preventing them from taking on younger workers.

Employers report difficulty in attracting people into job roles in the sector, and they also experience particular challenges when it comes to young people. The most common problems include:

- Age restrictions on insurance;
- Lack of appropriate experience.

Just under 30% of employers currently engage with schools and colleges to attract young people in the sector, meaning that as many as 70% have no engagement at all with education.

Of those who do, offering work experience and placements is the most typical form of engagement, with some involved in national initiatives, and a small number offering on-site events or visits.

Despite these relatively low levels of contact, at least three quarters of employers are interested in some form of future involvement with schools and colleges; for example 73% would be willing to provide work experience or traineeships, 46% hosting school and career event visits and, 39% promoting jobs and careers in their company to young people.

Employers have low levels of awareness of other schemes and programmes available nationally. Only 29% have previously heard of the MP Futures map of sites for school visits, and only 18% are aware of the STEM ambassador scheme. A very small proportion are actually registered with the STEM ambassador scheme: just over 2% of respondents.

1.4 Apprenticeships

The take-up of apprenticeships is reasonable: 63% of employers have previously employed an apprentice. Of those who have not, the main barriers appear to be apprenticeships being perceived as inappropriate for their company and concerns regarding age restrictions and insurance.

Employers are also uncertain about the future of apprenticeships. Over half (54%) intend to employ an apprentice in future, however 22% are unsure of their plans. Reasons for this uncertainty are not clear. This may be a reflection of fears about the fitness-for-purpose of the current sector-specific apprenticeships: on average, employers rate the fitness-for-purpose of apprenticeships at just under 6 out of 10.

A Levy on all UK employers with a pay bill over £3 million a year is being introduced in 2017; this will be used to fund apprenticeships in England. Scotland will receive a portion of the levy monies based

on the number of employees from levy paying employers living in Scotland with a Scottish postcode. The Scottish Government will decide how this money is to be used.

Findings from employers operating in Scotland indicate that over a 39% anticipate being required to pay the Levy, however 22% do not know whether or not it will apply to them. Findings also suggest the introduction of the Levy will not necessarily incentivise employers to take on more apprentices in future (40% agreed with this proposition).

2. Introduction

2.1 Overview of the research

This research has been commissioned by MP Futures in order to provide reliable and up-to-date labour market intelligence (LMI) that fully captures and represents the quarrying, mineral products and mining sector. The results of this LMI survey are intended to help inform policy and funding decisions made by Government departments and agencies, including the Department for Business, Energy and Industrial Strategy (BEIS), Department for Education (DfE), the UK Commission for Employment and Skills (UKCES) and the Skills Funding Agency.

2.2 Research methodology

The research was conducted via a UK-wide online survey developed by MP Futures and refined by Pye Tait Consulting. Over 330 contacts were supplied by MPQC, the British Aggregates Association (BAA) and the Mineral Products Association (MPA). An additional c.1,370 contacts were sourced by Pye Tait from a reputable national database[2].

The survey was closed on 31st August with a total of 101 unique responses.

This report includes the findings from employers operating in Scotland, as follows:

- 26 companies operating in Scotland as well as other parts of the UK;
- 15 companies operating in Scotland only.

It accompanies a main survey report comprising findings from the full UK results. Note: As the findings in this report are based on low base numbers of respondents, these data should be viewed with caution, and should be regarded as indicative only.

2.3 Report structure

This report is structured thematically. Chapter 3 presents the sector profile, with data on workforce size, key roles and recruitment practices and challenges, such as hard-to fill-vacancies. The following chapters (4 and 5) deal with skills and training needs, and the use and availability of training provision. Section 6 focuses on careers, young people and engaging with schools, with apprenticeships covered in Section 7. A summary of key findings can be found in Section 8.

The appendix contains information on the respondent profile, with a breakdown by industry sub-sector (categorised by Standard Industrial Classification) and region. A list of respondent job roles is also provided.

[2]The database was filtered for companies operating in the relevant Standard Industrial Classification (SIC) codes. The code descriptions are listed Appendix 1 under 'Respondent profile'.

3. Industry profile

3.1 Industry sector and workforce

The survey gathered a range of data on industry profile, including the size of the workforce, the balance of employment (full and part time) and information on workforce demographics.

Of the 101 survey respondents, the vast majority (71%) are involved in the quarrying of stone, sand and clay, 32% undertake construction of roads and railways, with a further 22% mining gravel, sand, clay, gypsum, chalk, slate and kaolin (Figure 31). In terms of the main business activity, quarrying is the most common (46%), followed by construction of roads and railways (12% (Figure 32).

As well as operating in Scotland, a number of companies also have a presence in other nations and regions, the most common being 'North East England' (27%) (Figure 33).

Workforce size

In total, companies responding to the survey employ a combined workforce of 17901 individuals; with employee numbers ranging from 2 to 7,162. A small number of very large companies account for the bulk of employees, making the mean average 459 employees (the median is 60 employees).

Employed status

Full time employees account for 85% of the workforce, with over 10% of the remaining workers employed as contractors.

Age and gender

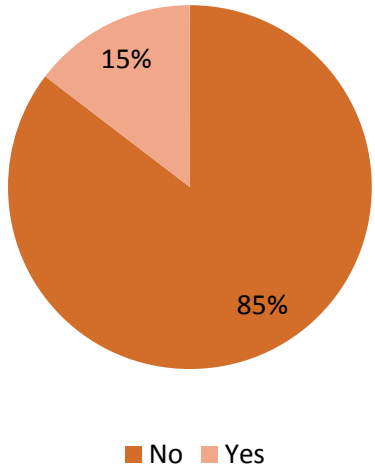
Survey results reveal an aging workforce, with the majority (57%) of employees being over 45 years of age. Young workers – those aged 18 to 34 – constitute just 18% of all workers.

The workforce is also dominated by males, with men representing, 87% of all employees.

Overseas workers

Only a very small proportion (15%) of companies has recruited overseas migrants in the past (Figure 1).

Figure 1: 'Have you recruited overseas migrants?'



Base: 41 respondents

Of those recruiting overseas migrants, a small number provided examples of job roles. While there are no common themes here, the responses demonstrate that migrants work in a variety of different roles, ranging from engineers to plant operators and LGV drivers through to administrators and senior managers.

New roles

In addition to migrant worker roles, respondents were also asked about any new or emerging roles that their company might require in five to ten years' time. A variety of different answers were given, including office and IT staff (e.g. general IT skills and social media expertise). Other, specific, technical examples include:

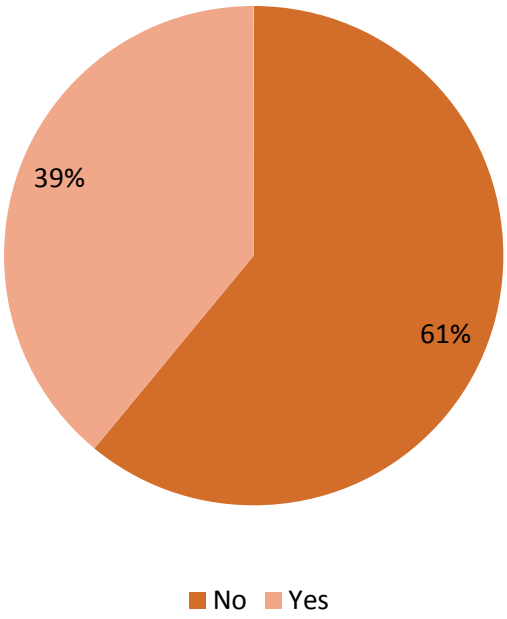
"Cyber Security Materials Development and Research Robotics."
"Engineers and surveyors with a background in geology and geography with sciences to have an overview of the challenges to meet demand for minerals and thoroughly understand the impacts so the design of mineral workings in the UK and Europe can meet demand. Active engagement with the universities, schools and colleges to advise students of the roles in the minerals sector whether being a plant operative or a quarry manager."
"Environmental expertise."
"First line managers, middle managers who are true managers / leaders, who have the ability to properly and actively manager their people, develop them, coach them, bridging the generations etc. Project management skills as our business will more and more face change and transformation. Digitally skilled people."

"Management of H&S, process, technical skills."
"Remote control operations to allow unmanned machine operation."
"Skilled plant operators capable of operating latest machinery and maintenance of same."
"Survey trained personnel."

Vacancies

Of those responding to the survey, a substantial proportion (61%) the companies in the sector currently have staff vacancies (Figure 2).

Figure 2: Does your company have any vacancies?



Base: 41 respondents

Of those that do (16 respondents) the number of vacancies varies by size of company with the largest reporting over 200 vacant positions.

The most common (mode) number of vacancies per company is two. Over a third (36%) of companies plan to recruit soon, regardless of whether or not they currently need staff at present.

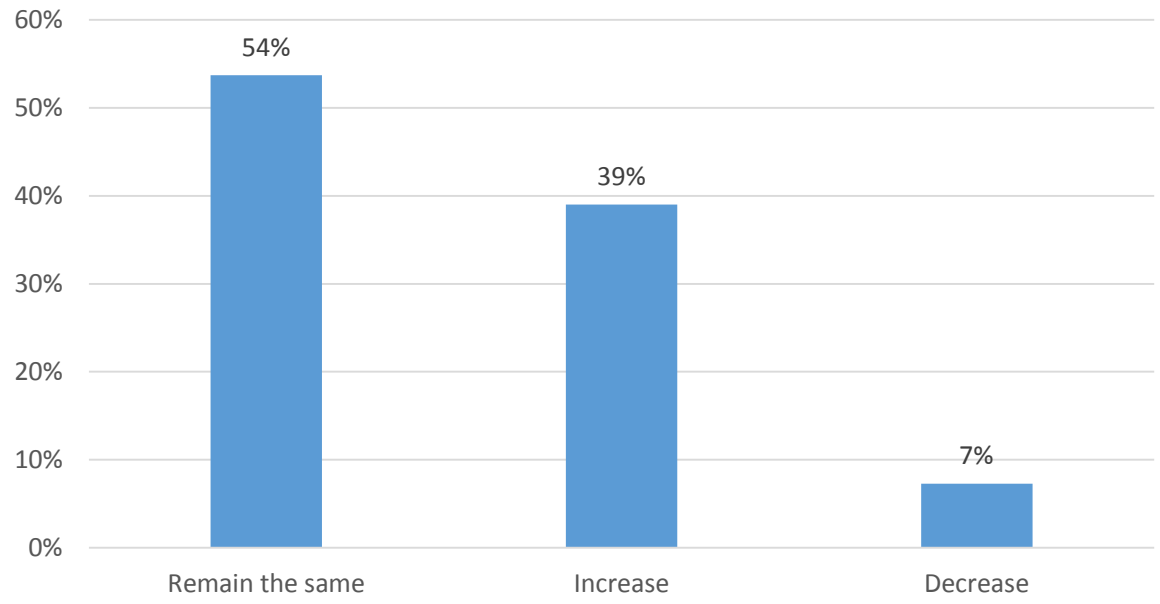
Staff turnover

In terms of staff turnover rates, the sector benefits from a fairly low level of churn, with employers reporting – on average – a rate of 11% turnover annually. Despite a low average, rates vary by company, with one reporting a rate as high as 70% turnover.

Workforce growth

When it comes to future change in terms of employment growth, the picture is generally one of consistency, with some optimism. For example, although just over half of respondents predict workforce levels will stay the same, 39% expect to see their workforce grow in the next 18 months (Figure 3). Only a small minority (7%) predict a decline.

Figure 3: Workforce growth expectations over the next 18 months

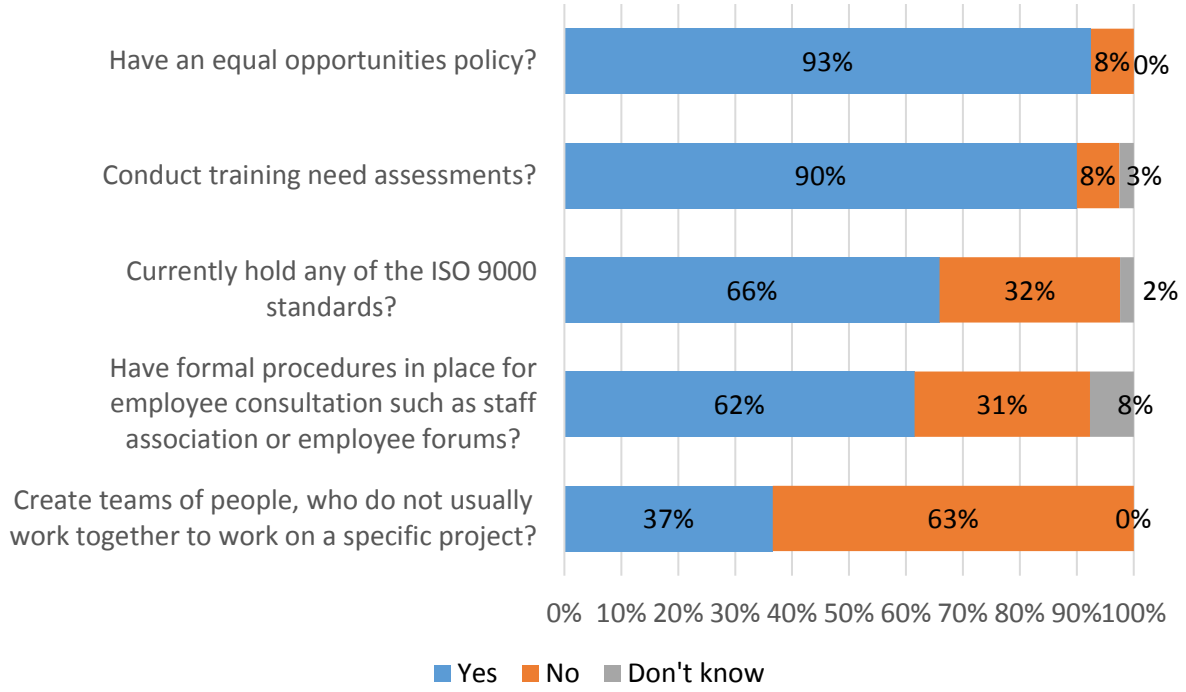


Base: 41 respondents

Company policies and procedures

The existence of company policies and procedures varies quite considerably, most likely due to the range of company sizes responding to the survey. For example, the majority (93%) have in place an equal opportunities policy, and most (90%) conduct training needs assessments of their workforce. In terms of procedures and ways of working however, a much smaller proportion (37%) create teams of people who will work together on a specific project. This reflects the dominance of small companies in the respondent base (Figure 4).

Figure 4: Existence of company policies and procedures



Base: 41 respondents

3.2 The challenges of recruitment

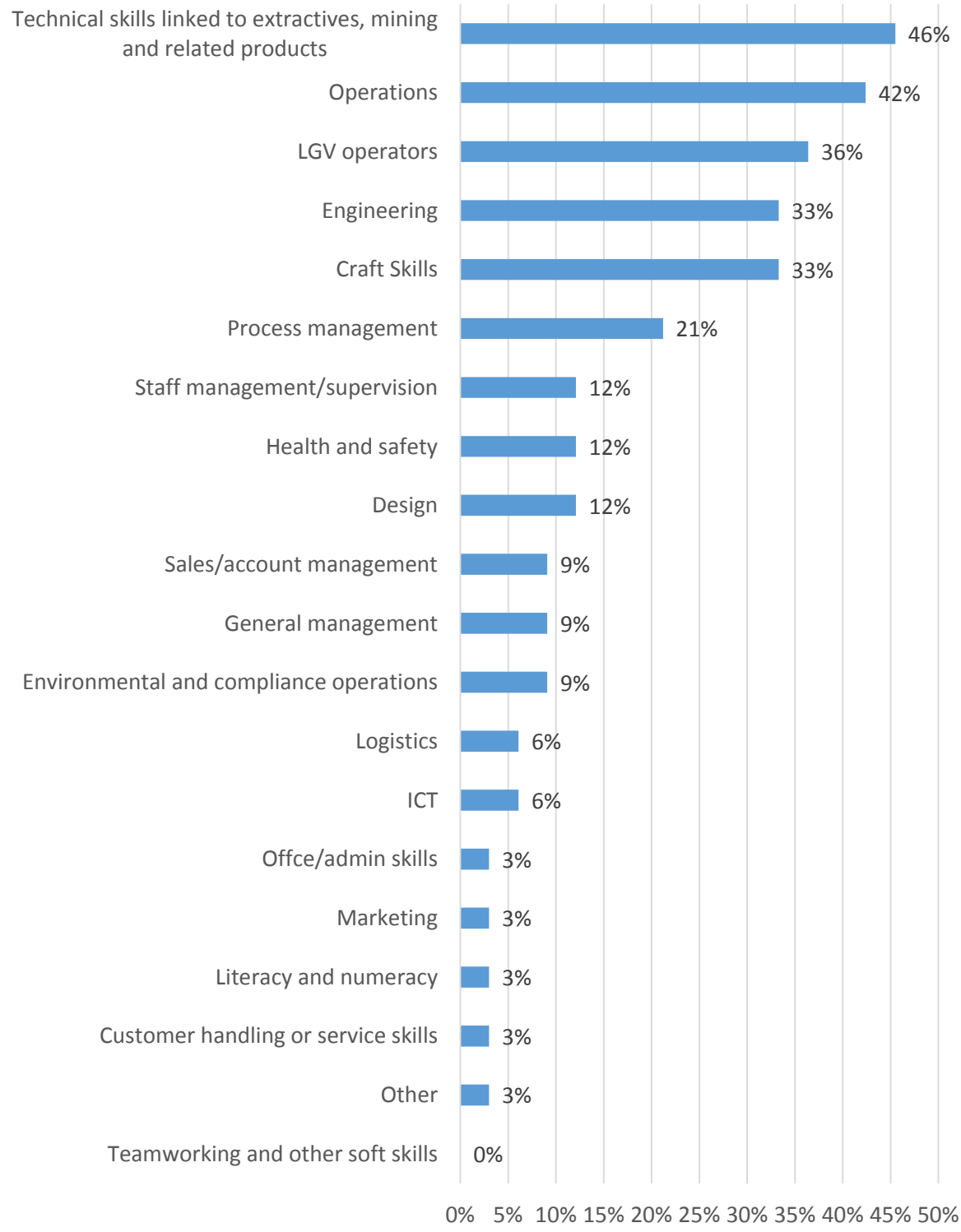
When recruiting, employers face difficulties in a number of areas, particularly when attracting those with technical, operational and engineering skills and those involved in driving – specifically LGV drivers. For each of these roles over a third of respondents experience recruitment difficulties (Figure 5).

Fewer employers reported difficulties with recruiting to more generic roles, for example customer handling or service skills (3%), general management (9%), sales/account management (9%).

Of those who stated 'other', only two gave further detail on the roles where they experienced recruitment difficulties. These include: 'specific plant skills' and 'technical skills for the cement business'.

Figure 5: Areas where it is difficult to find skilled people

(Percentage total exceeds 100% as respondents could select more than one answer)



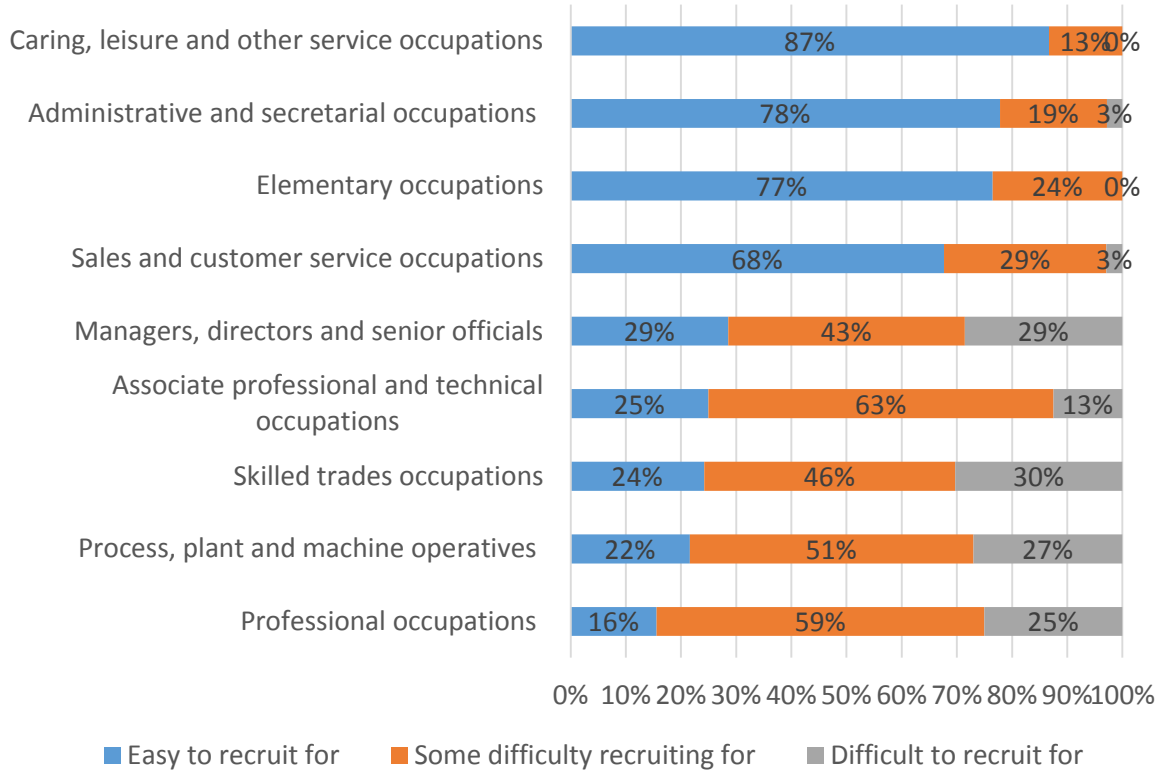
Base: 39 respondents

The survey also asked employers to indicate the level of difficulty when recruiting to certain, broad job roles or categories, covering a variety of levels ranging from professional, to technical, to skilled, administrative and so on.

Those considered easiest to recruit mainly consist of lower level roles such as caring, leisure and service occupations (for example, cleaning), followed by administrative and secretarial, and elementary occupations (Figure 6).

Employers experience most difficulty when recruiting to professional occupations (84% finding these difficult or experiencing some difficulty recruiting to), followed by 'process, plant and machine operatives' (73%) and skilled trades occupations (70%). Other managerial roles are also considered fairly difficult to recruit to (72%).

Figure 6: The level of difficulty when recruiting for generic job roles

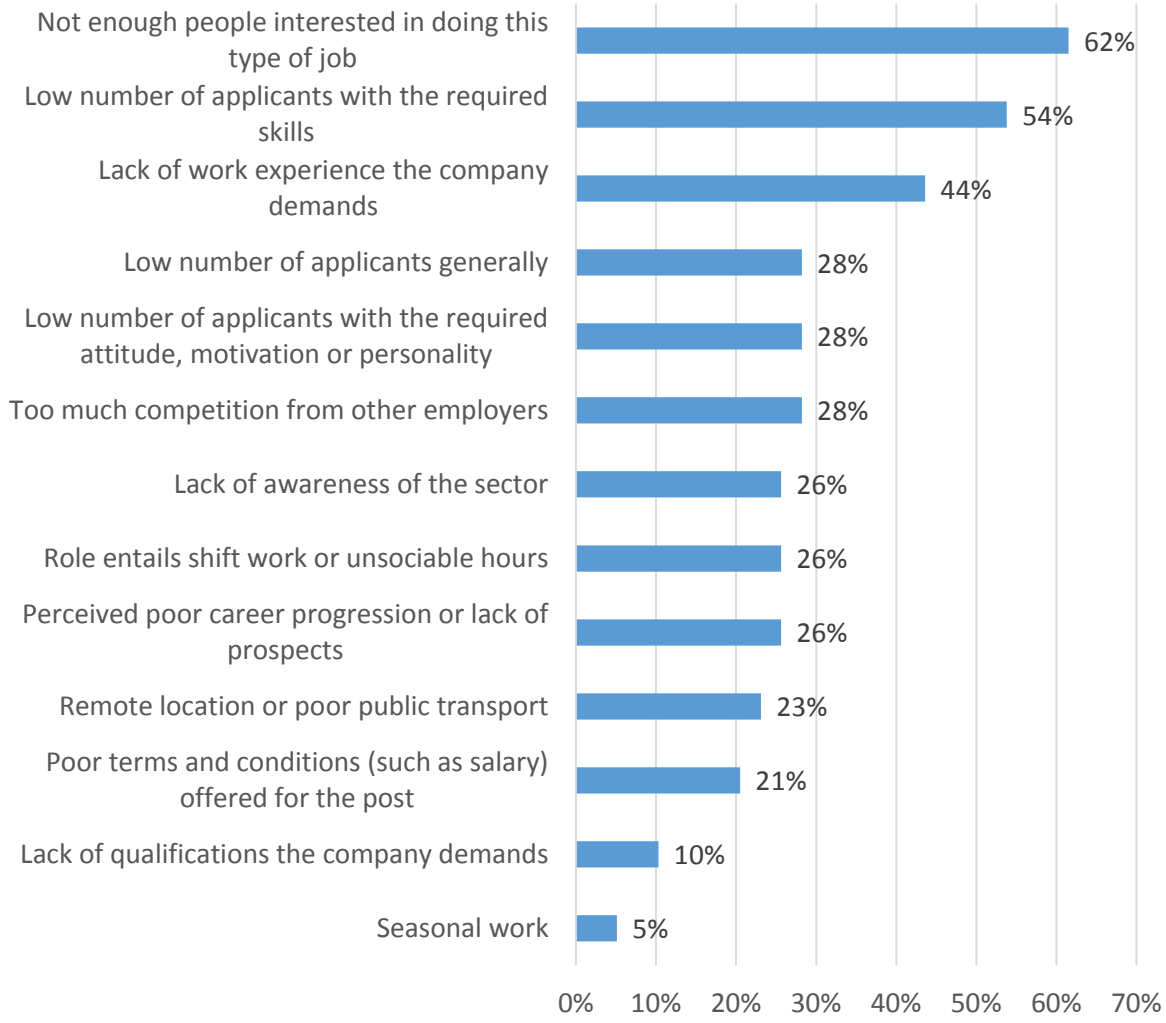


Base: 41 respondents

The cause of hard to fill vacancies is varied, with the majority (62%) of employers putting this down to a lack of interest in the type of roles in question (Figure 7). Other reasons, likely linked to this, include low numbers of applicants with the required skills (54%) and a lack of workers with appropriate work experience (44%).

Figure 7: Causes of hard to fill vacancies

(Percentage total exceeds 100% as respondents could select more than one answer)



Base: 39 respondents

The findings suggest – as is the case with other, related, sectors such as construction – an issue with sector image, promotion of industry careers and, potentially, a lack of appropriate careers guidance. A low number of applicants with the required skills could also point to a lack of appropriate skills training or qualifications for those who are interested in a career in quarrying, mineral products and mining. However answers to other questions indicate a lack of appropriate qualifications may be less of an issue suggesting those with the appropriate skills may simply not be attracted to the industry.

4. Skills and training needs

The survey went on to focus on workforce skill levels, future skills needs, as well as demand for training.

Respondents were asked to rate – on a scale of 1-10 (where 1 is 'unskilled' and 10 is 'perfectly skilled') – the level of skill within their workforce in a number of different areas (Table 1).

On the whole, respondents rated the skill levels fairly highly, with an average for each skill of between 6 and 8. Skills areas receiving the highest average ratings of c. 8 out of 10 were (highest rating first):

1. Health and Safety
2. Operations
3. LGV Operators

The lowest ratings were given to technology-related skills and those in 'non-technical' areas such as ICT, marketing and design.

4.1 Current skills and training needs

Table 1: Staff skill level

	Count	Sum	Mean	Median	Mode	Minimum	Maximum	Range
Health and safety	37	301	8	8	8	7	10	3
Operations	36	287	8	8	8	5	10	5
LGV operators	28	223	8	8	8	3	10	7
Office/admin skills	37	292	8	8	8	6	10	4
Literacy and numeracy	34	265	8	8	8	5	10	5
Technical skills linked to extractives, mining and related products	35	272	8	8	8	4	10	6
Sales/account management	34	260	8	8	8	6	10	4
General management	38	286	8	8	8	5	10	5
Environmental and compliance operations	35	262	7	7	7	4	10	6
Engineering	34	254	7	8	8	3	9	6
Staff management/supervision	35	256	7	7	7	5	10	5

Customer handling or service skills	34	248	7	8	8	3	10	7
Process management	34	247	7	7	7	1	10	9
Logistics	30	214	7	7	8	3	10	7
Craft skills	31	221	7	8	8	1	10	9
ICT	32	227	7	7	7	5	10	5
Teamworking and other soft skills	33	223	7	7	7	5	10	5
Design	28	188	7	8	8	1	10	9
Marketing	31	195	6	6	5	2	10	8
Other	2	12	6	6	5	5	7	2

Respondents cited two 'other' skills in response to this question, these include:

- 'Geotechnical' skills; and
- 'Wider Knowledge of the sector and the use of the products in the market'.

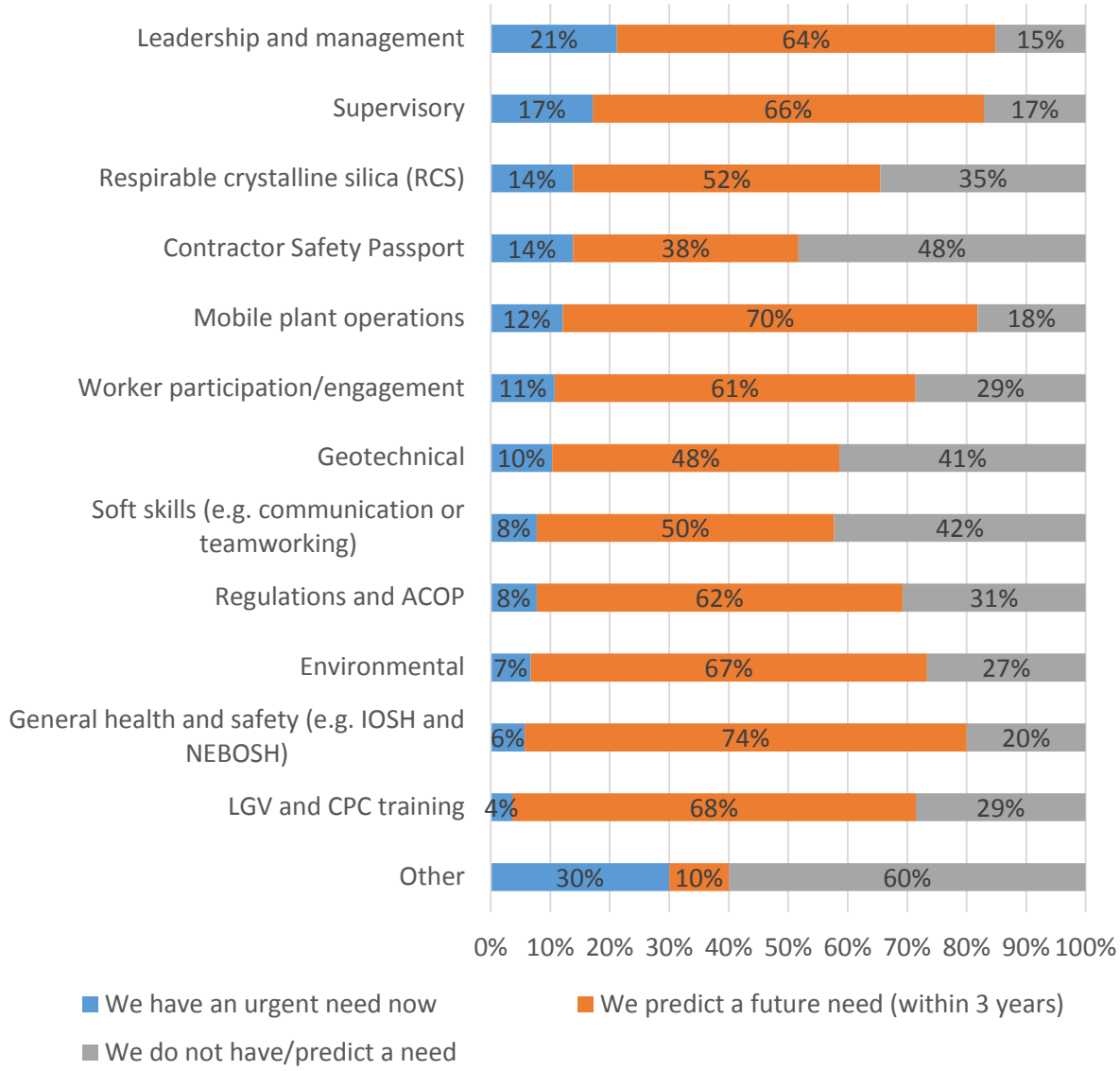
Despite the lowest level of skill being reported for 'non-technical' and generic roles (marketing and design), these are not typically flagged by employers as a priority for training. This is likely because these roles and skills are not core to, or considered crucial for, the business.

The area of greatest training demand is for leadership and management training, with over a fifth of respondents identifying an urgent training need. A further 64% anticipate a need in the next three years (Figure 8).

A good number of employers also identify a need for supervisory training (17% identifying this as an urgent need) and two-thirds of employers point to a need for training in respirable crystalline silica (RCS)[3], either urgently, or in the next three years. This may reflect the recent (May 2016) addition of RCS to a list of 13 cancer-causing chemicals in the workplace covered by the Carcinogens and Mutagens Directive (2004/37/EC).

[3] Information taken from EU Commission Press Release '*Commission proposed better workers' protection against cancer-causing chemicals*', 13 May 2016, here: http://europa.eu/rapid/press-release_IP-16-1656_en.htm

Figure 8: Demand for training by area



Base: 41 respondents

Areas with the lowest predicted demand (i.e. no current or predicted need) include:

- Contractor Safety Passport (48%)
- Soft skills (e.g. communication or teamworking) (42%)
- Geotechnical (41%)

The majority of 'other' responses suggest no demand for training. Of those who did predict a demand this is for roles including: 'plant operations', 'graduates taking courses in engineering with exciting career prospects'.

4.2 Future skills needs

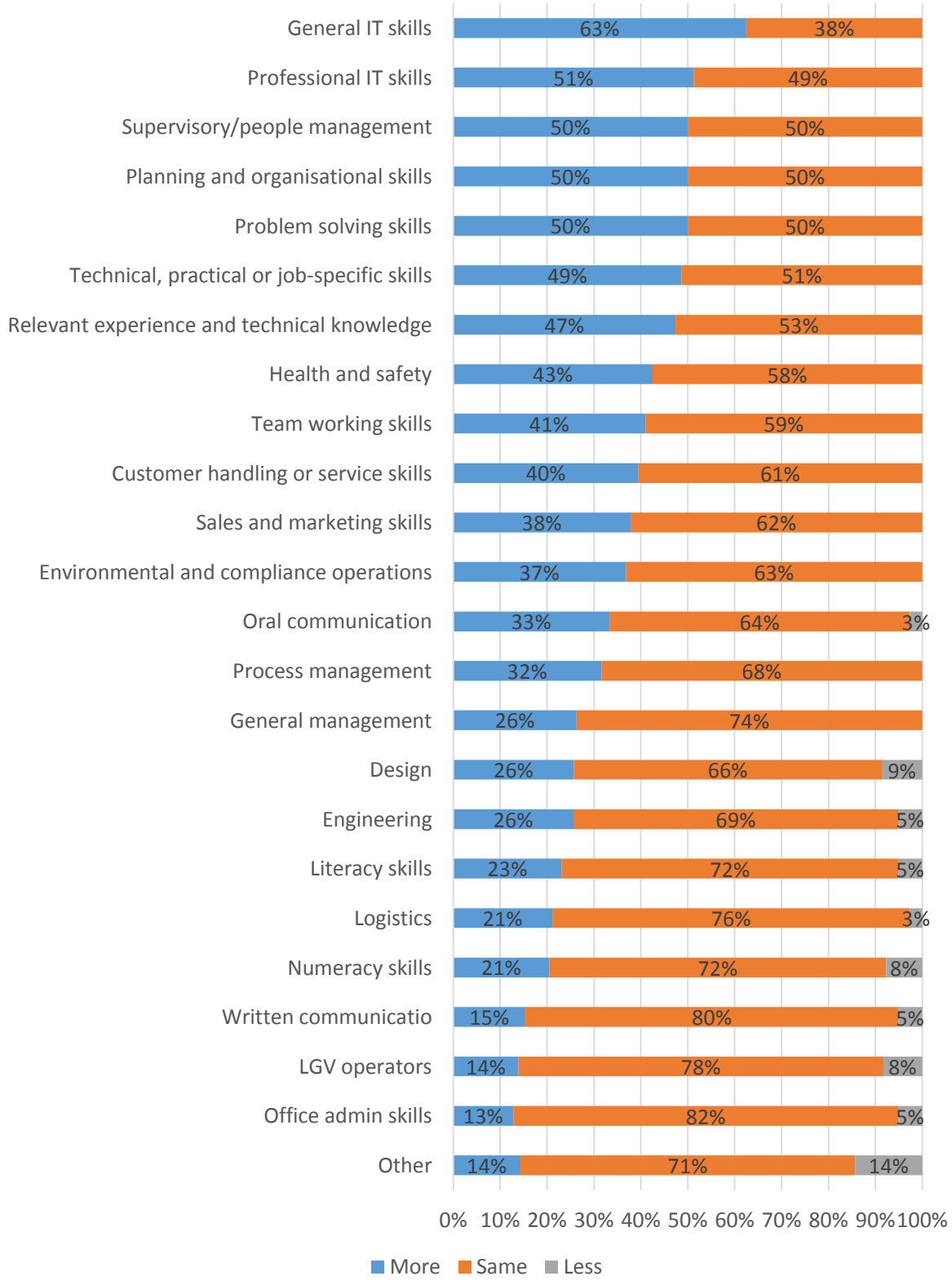
When comparing current skill levels and future skill needs there are few areas where a need for upskilling is apparent. For example, some of those skills with the lowest current skills score, are not predicted to grow in importance in future; these include 'design', and marketing-related skills. However, when it comes to IT-related skills there may be a need for upskilling: general ICT skills are currently rated at 7 out of 10 by employers, and 'general IT skills' and 'professional IT skills' are the top two skills expected to become more important in future (Figure 9).

Other skills that are considered to become more important in future include: 'supervisory/people management skills', 'planning and organisational skills' and 'problem solving skills' - all identified by about half of employers as being more important in the future (Figure 9).

Very few skills were predicted to become less important in future; those identified include: 'design' 9%, 'LGV operators 8%' and numeracy 8%.' (Figure 9).

Four 'other' answers were provided, including: 'New developments', 'Plant', 'Possible overseas growth' and 'Project management'.

Figure 9: How important skills will be in the future



Base: 18-98 respondents

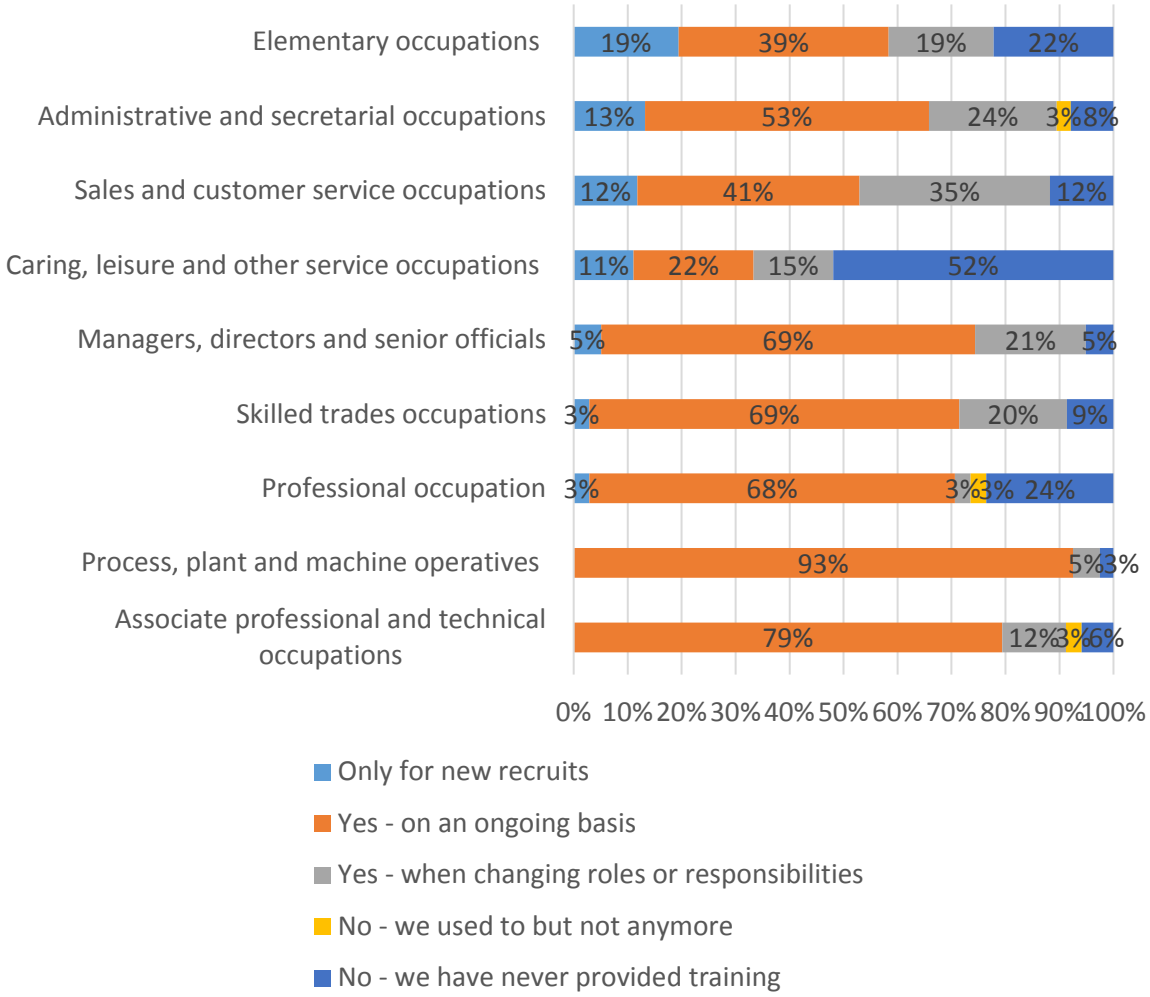
5. Training provision

5.1 How training is provided

Overall, training is currently provided to all levels of staff in the workforce, however the extent and the nature of that training provision varies substantially (Figure 10).

Occupations most typically receiving training on an ongoing basis include 'process, plant and machine operatives' (93%) 'associate professionals and technical occupations' (79%) 'managers, directors and senior officials' (69%), and 'skilled trades occupations' (69%)

Figure 10: Training currently provided



Base: 41 respondents

Those receiving the least, or no, training include: 'caring leisure and other service occupations' (52% of employers having never provided training for this group) and 'professional occupations' (24% of employers having never provided training for this group).

Those most likely to receive training when changing roles include 'sales and customer service occupations' (35%) and 'administrative and secretarial occupations' (24%).

A small number of employers have recently stopped providing training for certain roles; these roles are: 'professional occupations', 'associate professional and technical occupations', and 'administrative and secretarial occupations' (Figure 10). For each of these occupations, 3% of employers have stopped offering training.

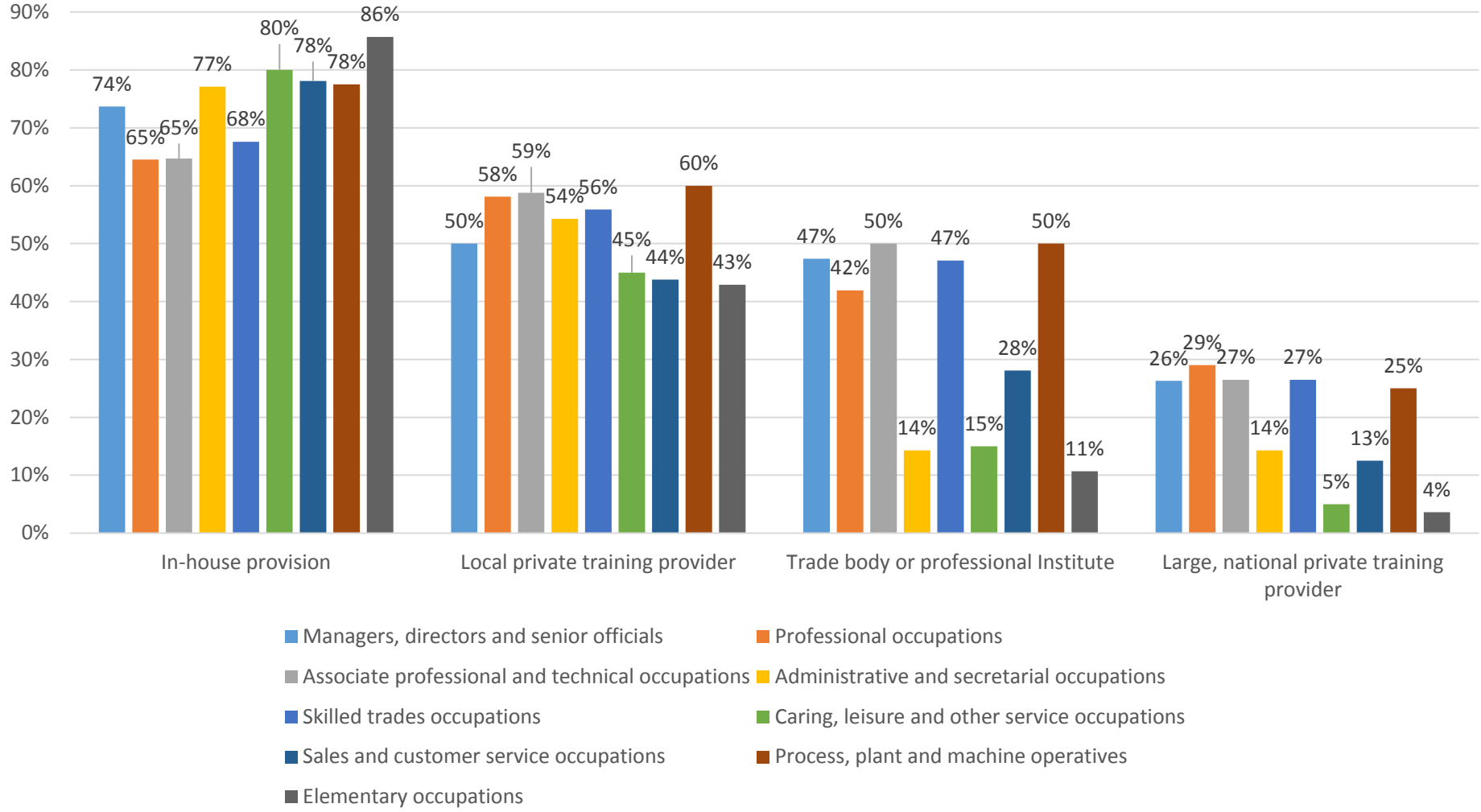
5.2 Types of training provision used

The survey went onto ask employers about the way in which staff training is provided, whether in-house or delivered via a training provider (independent or Further Education College), University or other type of provider (Figures 11 and 12).

In-house training is the most popular method, with a great deal of variation by job role. For example:

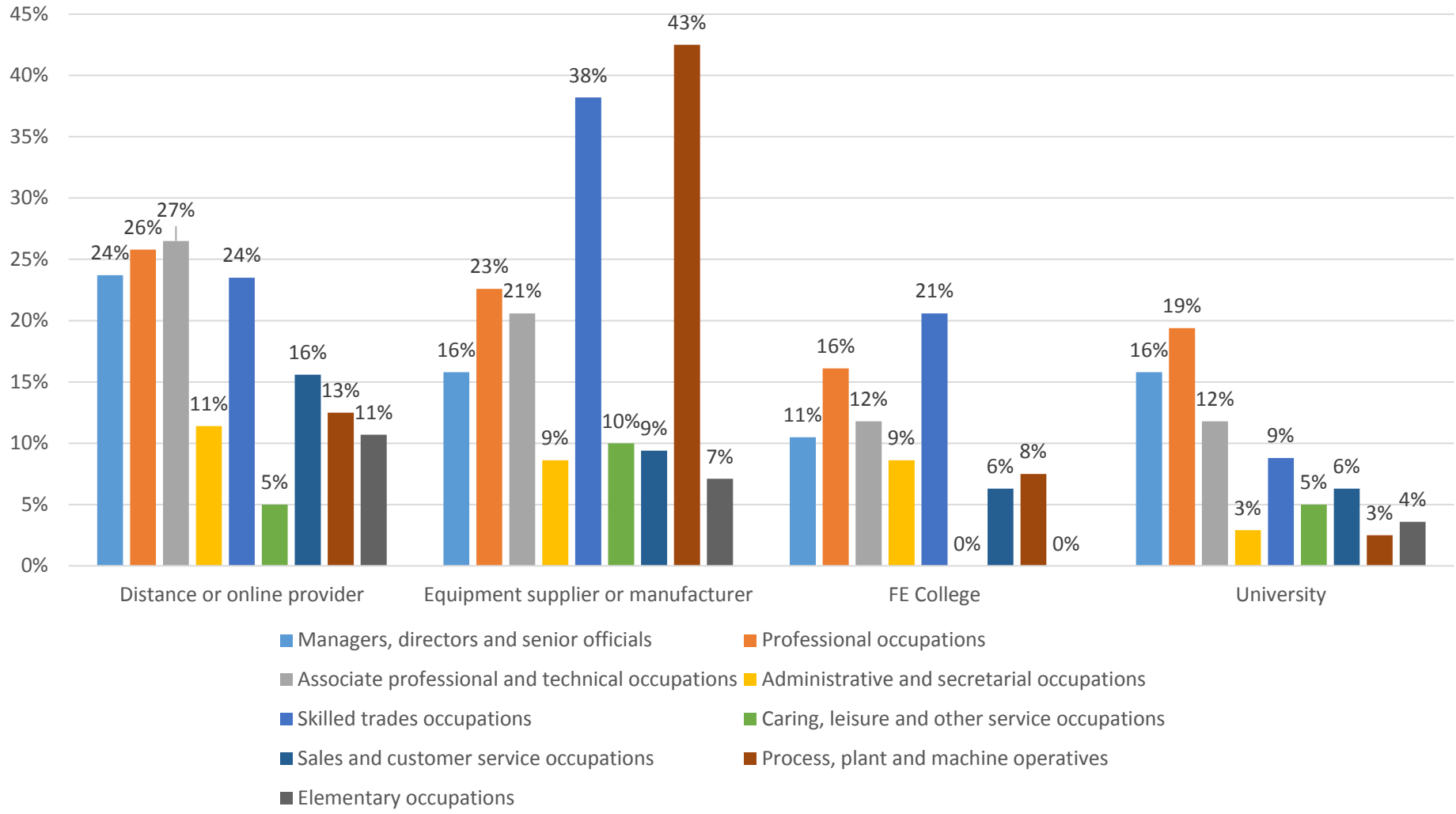
- In-house training is the most common type of training for 'elementary occupations' (86% of employers offering this type of training).
- Process, plant and machine operatives account for the most training delivered by local, private training providers (60% of employers choosing this method), but the majority of training for this job role is conducted in-house (78%).
- Trade body or professional institute training is also fairly popular. Half of employers will use this type of provision for managers, directors and senior officials and for process, plant and machine operatives.
- University courses are the least common type of provision.
- Across the occupational groups, process, plant and machine operatives benefit from the greatest variety of provision. They are the largest group receiving training from each of local, private training providers (60% of employers offering this), trade bodies and professional institutes (50%) and equipment suppliers and manufacturers (43%).

Figure 11: Type of training provided by job type



Base: 41 respondents

Figure 12: Type of training provider by job role (continued)



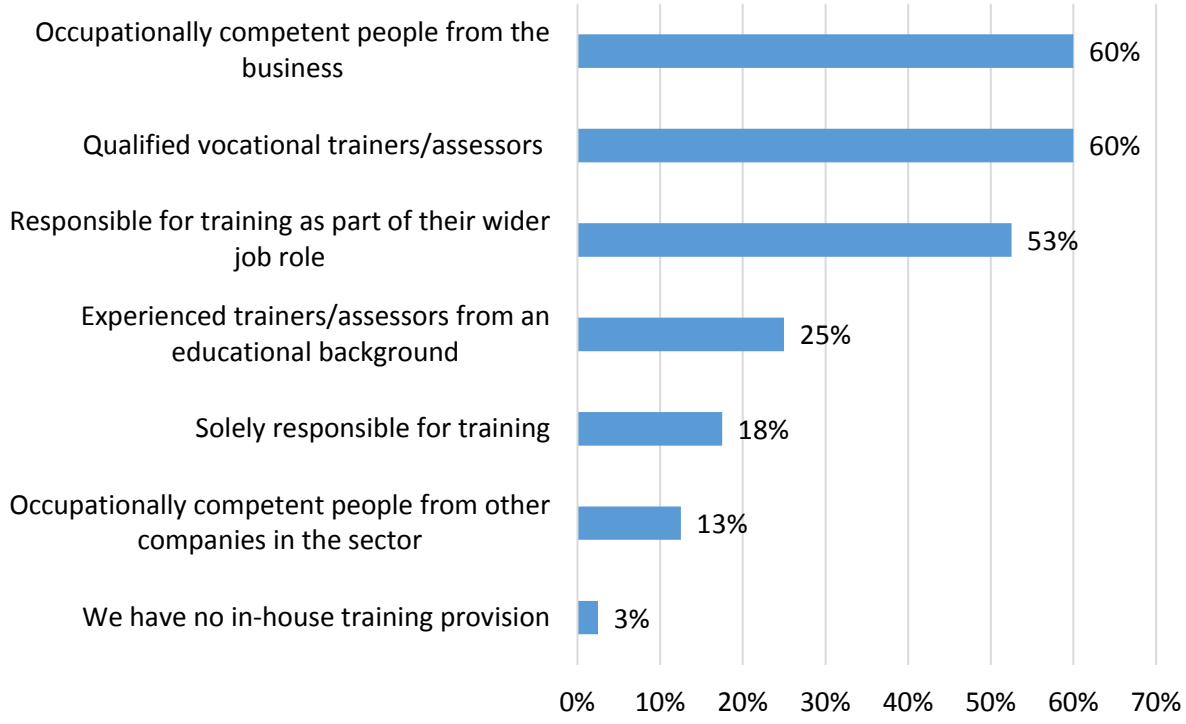
Base: 41 respondents

Where training is delivered in-house, 60% of employers will employ a qualified vocational trainer or assessor, 60% will deliver this training via occupationally competent people from the business (Figure 13).

The results indicate these individuals provide training as part of their job role, with only 13% of companies employing a member of staff solely responsible for training.

Figure 13: Types of trainers used to delivery in-house training

(Percentage total exceeds 100% as respondents could select more than one answer)



Base: 40 respondents

5.3 Achievement of vocational qualifications

The achievement of vocational qualifications is hugely varied across the sector with larger employers accounting for the bulk of NVQ achievements – the largest of which seeing over 200 achievements in the 12 months preceding the survey (Table 2).

Most employers do not report any vocational qualification achievements (the mode).

Table 2: Number of employees achieving a Vocational Qualification in the last 12 months

Count	Sum	Mean	Median	Mode	Minimum	Maximum	Range
34	609	17.91176	5	0	0	207	207

Level 2 qualifications are most typical in the sector, accounting for 70% of all achievements. Level 4 qualifications are the second most common, accounting for 13% of all achievements (Table 3).

Table 3: Number of employees achieving a Vocational Qualification in the last 12 months (by level)

	Count	Sum	Mean	Median	Mode	Minimum	Maximum	Range
Level 2/SCQF Level 5	14	290	21	10	4	1	95	94
Level 3/SCQF Level 6	8	53	7	3.5	2	1	17	16
Level 4/SCQF Level 7	8	69	9	5	1	1	35	34
Level 5/SCQF Level 8	1	2	2	2	2	2	2	0
Level 6/SCQF Level 9-10	4	17	4	5	5	1	6	5
Level 7/SCQF Level 11	1	7	7	7	7	7	7	0
Level 8/SCQF Level 12	0	0	0	0	0	0	0	0

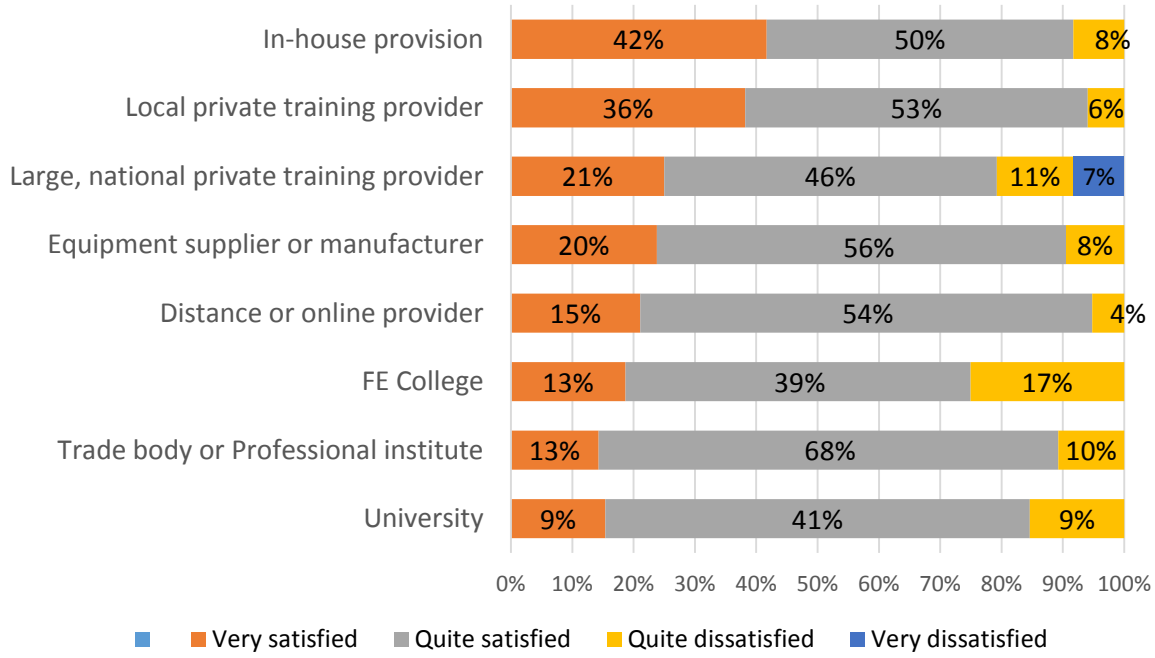
5.4 Satisfaction with training provision

In-house training is viewed most favourably, with 92% of respondents satisfied (either 'very' or 'quite') with this form of provision. When it comes to external provision, respondents report the highest levels of satisfaction with 'local private training providers' – with 89% either 'very' or 'quite' satisfied – followed by 'trade body or professional institute' (81% of respondents either 'very' or 'quite' satisfied).

Employers have mixed views of large, national private training providers. Although 21% rate their company as being 'very satisfied' and 46% are 'quite satisfied' with this form of provision, large,

national training providers also attracted the highest negative ratings: 11% being 'quite dissatisfied' and 7% very dissatisfied.
The least used form of provision is 'University' (54%), followed by distance learning or online providers (40%) (Figure 14).

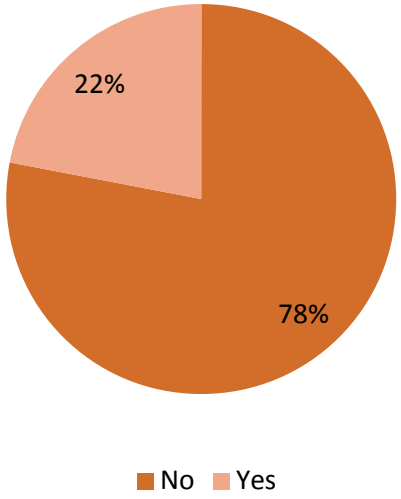
Figure 14: Satisfaction with different types of training provider



Base: 41 respondents

The range of provision available in terms of subject areas/occupational coverage appears, generally, to meet the needs of employers. However, 22% suggest they experience difficulty finding the right training (Figure 15).

Figure 15: Are there any subject areas/occupations where it is difficult to find the right training?



Of those responding to this question, five elaborated further.

"Mineral Surveyors and Mining/Quarrying Engineers with a broad range of skills in the sector such as, geology, design, reserve estimation, presentation of results and report writing."
"NVQ L3/4 for supervisory staff."
"Limited training providers for our tar squad and low loader drivers."
"Road planing and surfacing machines."
"Apprenticeships".

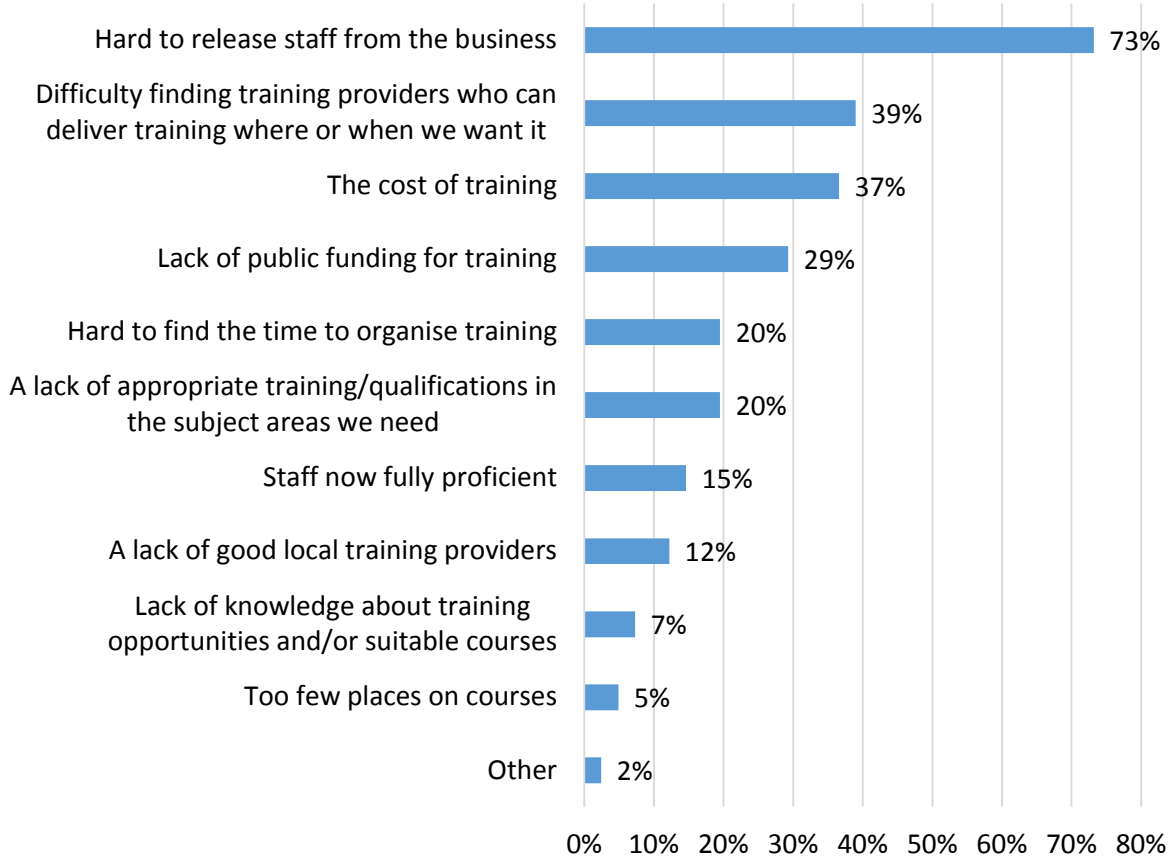
In addition to these challenges in terms of area/occupational coverage, employers also identified a number of barriers which prevent them from offering staff training (Figure 16).

The most prevalent obstacle, experienced by 73% of employers, is 'releasing staff from the business to attend training'. This suggests providers may not be offering flexible enough provision.

Employers also experience a range of other barriers, although to lesser degrees: the second most common issues being 'difficulty finding training providers who can deliver training where or when we want it' (39% of employers), followed by 'cost of training' (37%). The capacity and quality of relevant providers does not appear to be a concern, however.

Figure 16: Barriers preventing staff training

(Percentage total exceeds 100% as respondents could select more than one answer)



Base: 41 respondents

In terms of accredited qualifications on offer in the marketplace, not all employers have prior experience of them: 21% are not familiar with, or have not used, qualifications accredited by MP Awards; 15% are not familiar with, or have not used, qualifications accredited by other awarding organisations (AOs) (Figure 17).

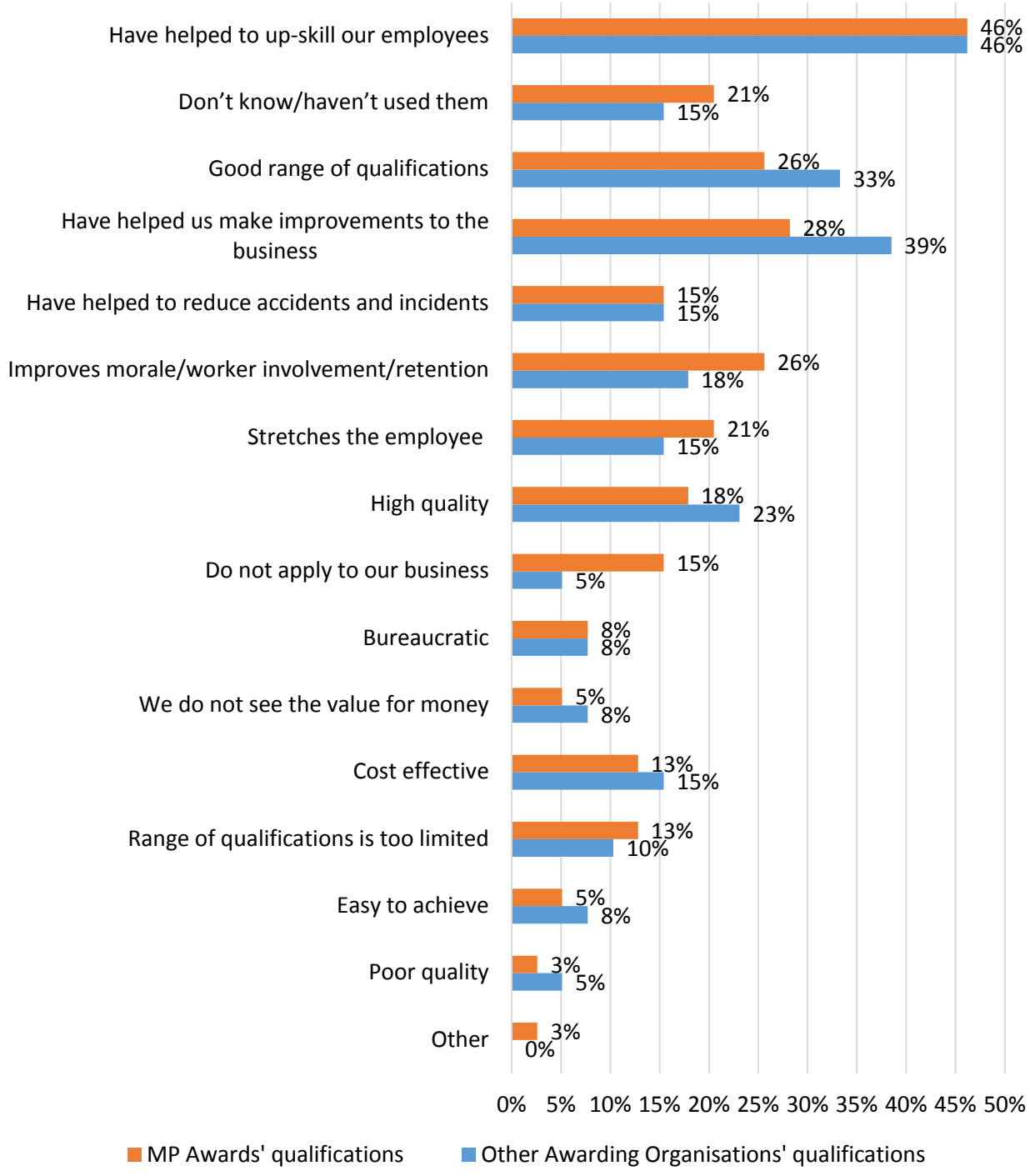
The remaining employers however tend to view sector-specific vocational qualifications positively, with similar numbers suggesting MP Awards' and other AO's qualifications have helped to upskill their employees (46% each).

Statements which employers associate more with MP Awards' qualifications than those offered by other AOs include:

- 'Improves morale/worker involvement/retention'
- 'Stretches the employee'

There are a small number of areas where MP Awards' qualifications are viewed less positively than other AOs. These areas relate to the range of qualifications, and whether or not they have helped to reduce accidents and incidents (Figure 17).

Figure 17: Businesses' views on sector specific vocational qualifications



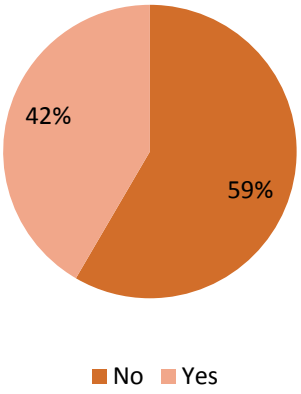
Base: 39 respondents
(Percentage total exceeds 100% as respondents could select more than one answer)

6. Careers, young people and engaging with schools

6.1 Employing young people

Recruiting young people is not standard practice in the quarrying, mineral products and mining sector, with well over half (59%) having done so in the three years preceding the survey (Figure 18).

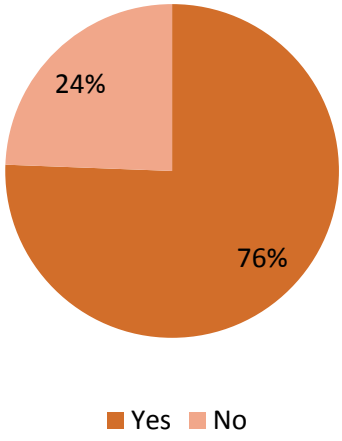
Figure 18: Have you recruited young people in the last three years?



Base: 41 respondents (percentages total more than 100% due to rounding)

The majority (76%) of employers would consider taking on a young person in future, however. The findings suggest therefore that, despite their willingness, there are barriers preventing companies from employing younger workers. This may, in part, be due to a lack of interest from this age group, for example, findings presented in Chapter 3 report the greatest cause of hard to fill vacancies as being '*not enough people interested in doing this kind of job'* (Figure 7).

Figure 19: Would you consider employing young people in the next three years?



Base: 41 respondents

Respondents also cited a number of more practical barriers to taking on young workers, generally related to issues such as age restrictions, health and safety requirements and insurance. The following answers were given (verbatim comments):

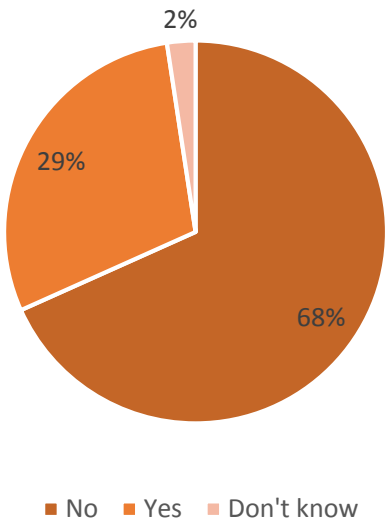
"Age restriction on insurances"
"Cannot get insurance for them to drive the vehicles"
"Due to the high risk operations and environment in which we operate, we seldom have suitable positions. However, if a young person applied for such a role and demonstrated a mature attitude, they would be considered equally"
"Not allowed on site due to age"
"We require experienced operators"
"Site age limit is 18"

6.2 Participation in engagement initiatives

Although most companies have an interest in employing young people, less than a third (29%) actively engage with schools and colleges to either inform young people about the sector or actively seek to recruit them into their workforce (Figure 20).

The vast majority of sector employers (68%) have no contact with educational establishments.

Figure 20: Do you currently engage with schools and colleges?



Base: 41 respondents

Of those who do engage with schools and colleges, a small number elaborated on how they go about this with the majority providing work placements/experience. Others are involved with national initiatives such as the Inspiring Futures Ambassador programme. A small number of respondents also offer on-site events or visits. Verbatim comments are provided below.

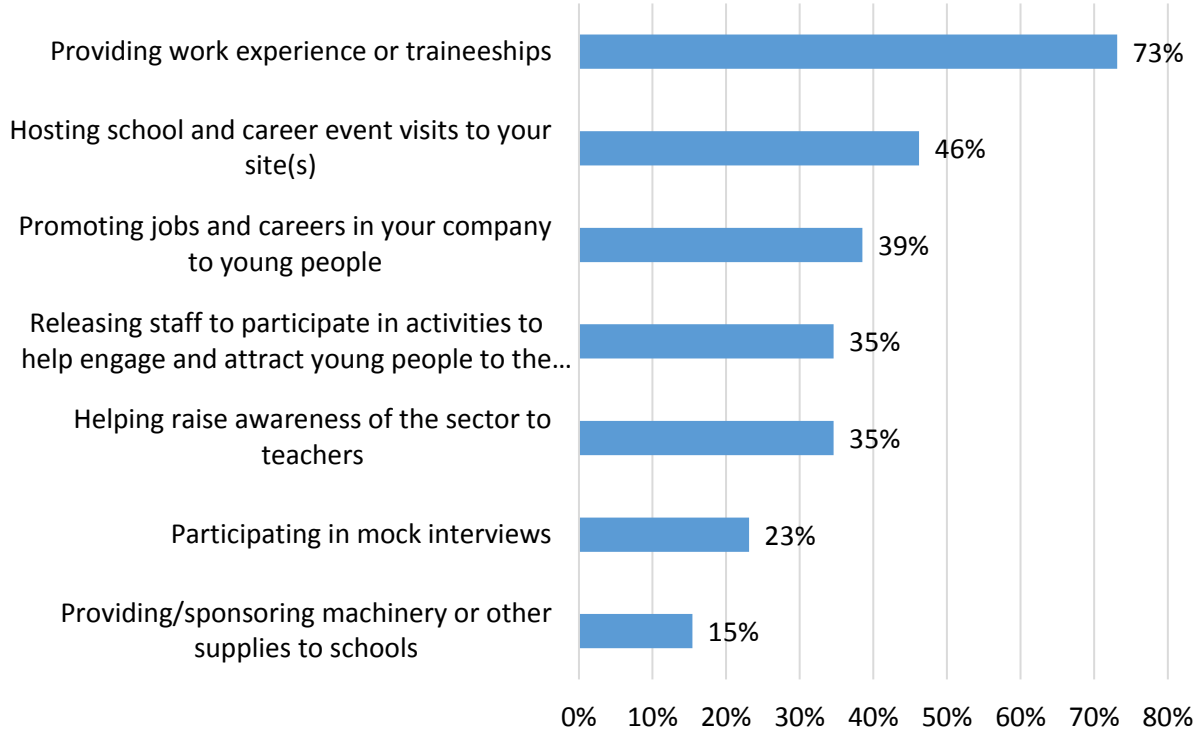
"Events on sites"
"Ongoing engagement initiatives at national and site level"
"We actively participate in school events as part of our customer relations procedures"
"We provide work experience placements to all local schools"
"Work placements"

Offering work experience is the most popular way in which businesses would be willing to engage with schools in future, with 73% choosing this option (Figure 21).

Substantially fewer companies would be interested in other types of activity, such as 'promoting jobs and careers in your company to young people (39%) and 'helping raise awareness of the sector to teachers' (35%).

Figure 21: Ways in which businesses would be interested in engaging with schools in the future

(Percentage total exceeds 100% as respondents could select more than one answer)



Base: 26 respondents

The least popular option is to provide or sponsor machinery or other supplies to schools (15%).

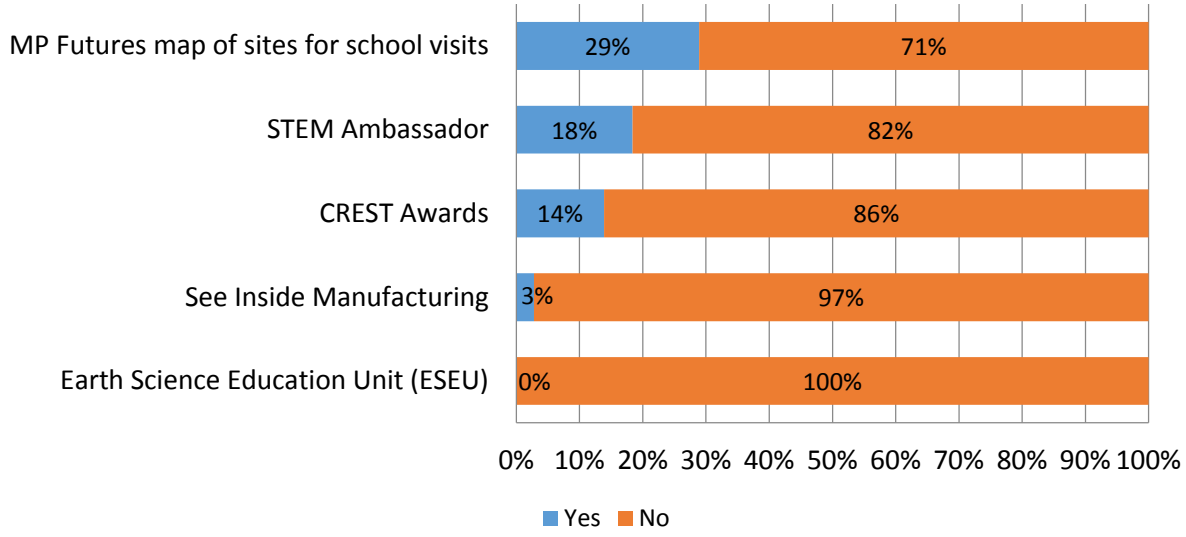
In the UK a number of schemes exist with the aim of improving awareness and knowledge of careers in science, technology, engineering and maths (STEM) related occupations. MP Futures operates one such scheme linking schools with employer sites[4].

The survey gauged employer awareness of a small number of these schemes. On the whole, few employers are familiar with the schemes and programmes on offer, the MP futures map being most known about (29% of employers), followed by the STEM ambassador programme[5] (Figure 22).

[4] The map of sites for school and career visits, available here: http://www.mpfutures.co.uk/schools/site-visits-and-attractions/

[5] STEM ambassadors are described as "the link between employers and the workforce of tomorrow". Their role includes "actively engaging with pupils and supporting teachers in the classroom". From 'Becoming a STEM Ambassador, available here: http://www.stemnet.org.uk/wp-content/uploads/185-STEM04-ambassadors-guide.pdf

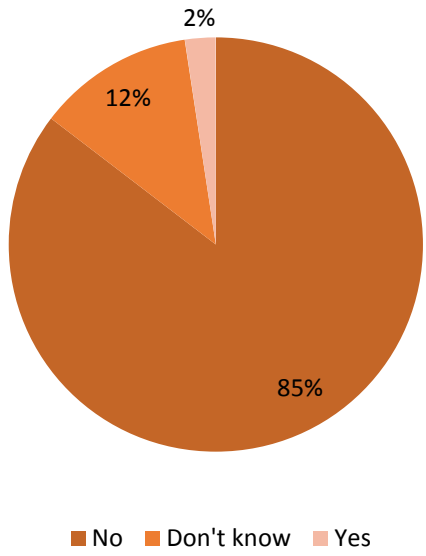
Figure 22: Awareness of schemes and programmes



Base: 41 respondents

A very small number of companies (2%) have employees registered as STEM ambassadors (Figure 23), although many more (18%) are aware of the programme (Figure 22).

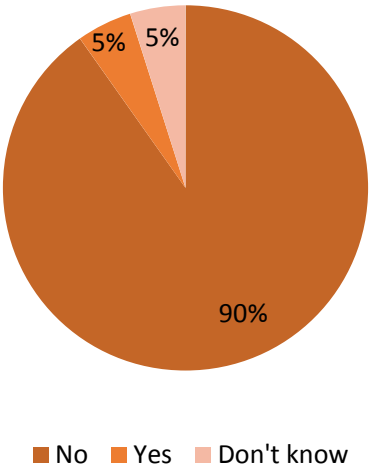
Figure 23: Businesses with registered STEM Ambassadors



Base: 41 respondents

Although a reasonable number of respondents are aware of the MP futures map of sites for school visits, far fewer (just 5%) actively participate in any MP Futures initiatives (Figure 24).

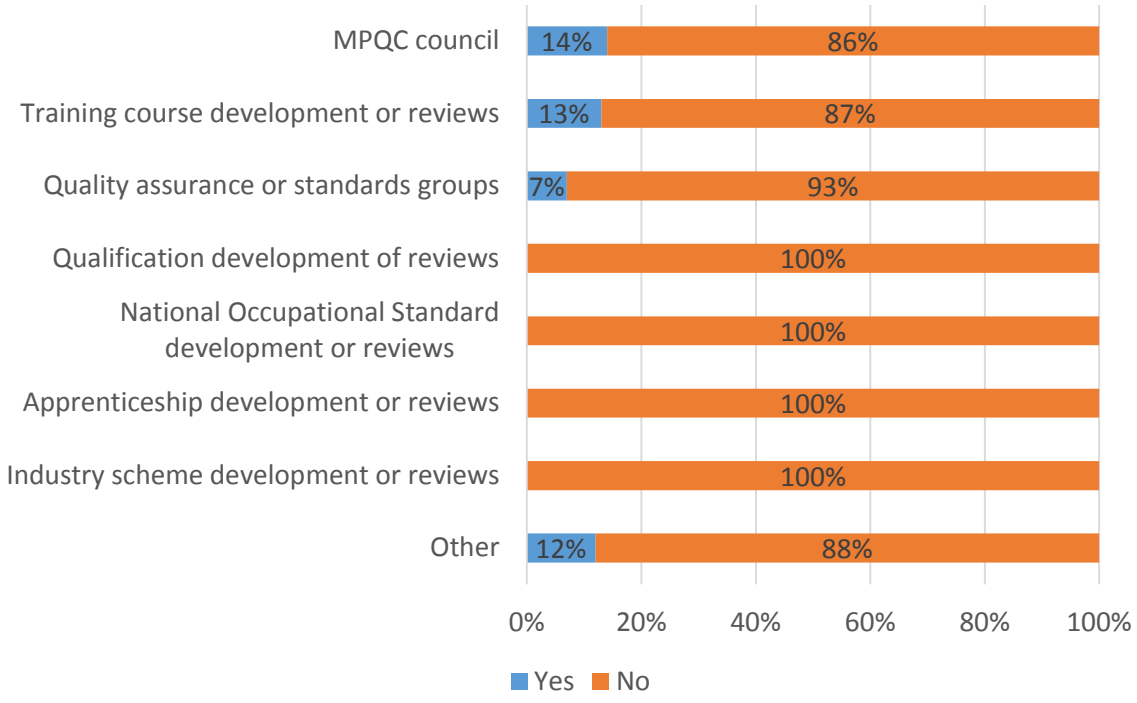
Figure 24: Participation in MP Future's initiatives



Base: 41 respondents

Figure 25 shows the involvement of Scottish employers in MPQC activities and working groups: note the figures are based on the 15 employers operating in Scotland only. Due to the small base numbers the figures should be viewed as indicative only. Very few are involved with MPQC, only participating in the MPQC Council, development or review of training courses and quality assurance or standards groups.

Figure 25: Participation in MPQC activities/working groups



Base: 15 respondents

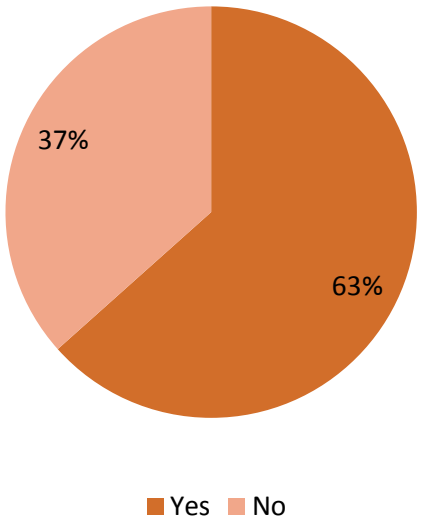
7. Apprenticeships

7.1 Current take-up of apprenticeships

This section of the survey asked different questions depending on whether respondents were based in England, Scotland or Wales to reflect the different apprenticeships and policy developments in each nation. The results presented below reflect just those responses relevant to Scotland (i.e. this does not include questions about Trailblazer apprenticeships in England).

Fifty nine per cent of employers have recruited a young person in the last three years (Figure 18), and well over half (63%) have employed an apprentice (Figure 26).

Figure 26: Have you ever employed an apprentice?



Base: 41 respondents

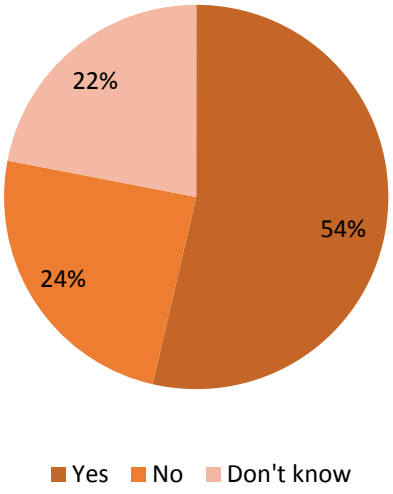
Of those who have not previously employed an apprentice, most felt they were not appropriate for their company, mainly due to the company size and not having a requirement for additional staff. Concerns around age restrictions and insurance are also notable. Verbatim comments are listed below.

"Age is a problem for using machines"
"The company is too small with limited opportunity"
"Haven't recruited in the last few years"
"Insurance issues"

"Our main issue is shortage of drivers, you either have a driving licence or you do not"
"Recruit from within our business"
"Site age limit is 18"
"We only employ experienced personnel"
"With 2 full time employees, it is difficult to justify an apprenticeship"

When considering future intentions, employers illustrate a fairly high degree of uncertainty with regard to employing an apprentice. For example, 22% are unsure as to whether they will do so in future, with just over half suggesting it features in their plans (Figure 27).

Figure 27: Do you plan to employ an apprentice in the future?



Base: 41 respondents

Reasons for uncertainty are not clear, but they may be related to concerns highlighted above regarding company size, age restrictions and insurance. They may also in part reflect employers' perceptions of the fitness for purpose of current sector specific apprenticeships. Employers with a knowledge of apprenticeships gave their fitness for purpose an average rating of 6 out of 10 (on a scale of 1 to 10 where 1 is 'totally unfit' and 10 is 'perfect' (Table 4).

Table 4: Fitness-for-purpose of current sector-specific apprenticeships

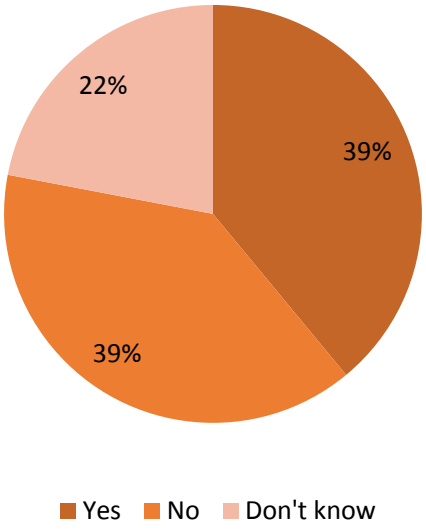
Count	Sum	Mean	Median	Mode	Minimum	Maximum	Range
18	104	6	6	7	1	9	8

7.2 Apprenticeship levy

A new apprenticeship Levy is set to be introduced by the Government in spring 2017. The monies generated by the Levy will be used to fund apprenticeships in England, but not all employers will have to pay it. Only companies operating in the UK with a pay bill over £3 million each year will be required to contribute.

Survey respondents are widely split when it comes to whether or not they expect to pay the levy, with 22% unsure. An equal number (39%) expect to pay the levy, as don't expect to pay the levy. (Figure 28).

Figure 28: Do businesses expect to pay the apprenticeship levy?

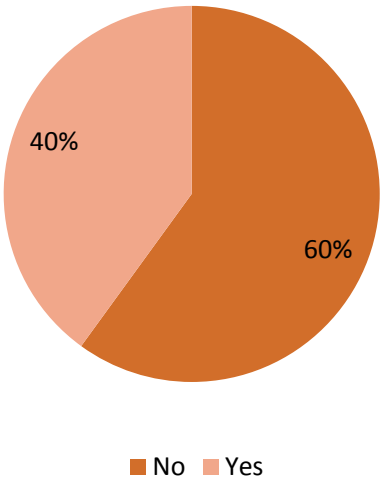


Base: 41 responses

The Government website states that employers "*can benefit from this investment by training apprentices*"[6], however less than half (40%) of respondents think the levy will encourage them to employ more apprentices in future (Figure 29).

[6] Guidance, Apprenticeship levy: how it will work, available here: https://www.gov.uk/government/publications/apprenticeship-levy-how-it-will-work/apprenticeship-levy-how-it-will-work

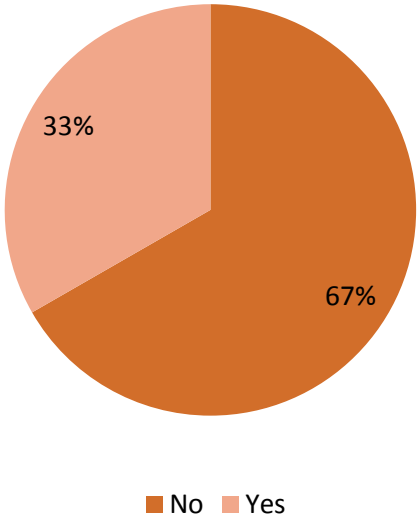
Figure 29: Do businesses believe that the apprenticeship levy will drive them to employ more apprentices in the future?



Base: 15 respondents

Employers expecting to pay the levy were also asked whether they expect to utilise all of this money in training new apprentices. Respondents were more optimistic about the outlook in terms of benefitting from the levy, with 67% predicting they would see a return on their investment (Figure 30). *Note: this data should be treated with caution due to the low number of respondents.*

Figure 30: Do businesses believe that they will be able to utilise all the apprenticeship levy money paid in training new apprentices?



Base: 15 respondents

8. Summary

A number of themes are apparent in the findings, illustrating a sector characterised by an aging workforce, but benefiting from low staff turnover. Respondents reveal challenges with recruiting to various roles, and identify skills needs in areas relating to technology and IT. Although employers have an appetite to recruit younger workers, many have not done so in recent years and experience barriers to recruiting workers from younger demographics, including apprentices.

8.1 An aging workforce and barriers to recruitment

The sector is dominated by an aging workforce, with the majority (57%) of employees aged over 45 years - those aged 18-34 account for only 18% of the workforce- and most (87%) are male.

Employers experience a number of barriers when recruiting young workers, including age restrictions for certain occupations, insurance requirements and health and safety considerations. Just over half (59%) have recruited a young person in the last three years.

The issue is compounded by a negative image of the sector: a lack of interest in sector jobs is perceived as the greatest barrier to recruitment and in filling hard-to-fill vacancies. Challenges are in attracting those with technical (linked to extractives, mining and related products), operational and engineering skills and those involved in driving (LGV drivers).

8.2 Future skills needs and training

New and emerging roles are related mainly to 'generic' occupations found across all sectors, including sales and management, perhaps suggesting predicted growth, as well as engineering and LGV drivers. Roles requiring or associated with IT skills are also predicted to emerge and become more important, such as those related to robotics and drones.

Generally, fairly high levels of existing skills are reported across the board with the lowest skill levels identified in areas related to new or emerging jobs, such as ICT skills. Employers also predict these skills needs will become more important in future.

Another predicted area of need is in 'supervisory skills' with over half of employers predicting this to become more important and over three quarters also identifying a training need in this area (either urgent or in the next three years). The most urgent, current needs however relate to leadership and management skills.

According to survey findings, upskilling for certain roles and competences is most likely to take place via in-house training if current trends continue: this being the most common form of training for all job roles.

Of those who do use external providers, satisfaction is varied, with it being highest for local, private training providers. Responses suggest some potential issues with the quality of provision from large, national training providers.

Employers hold mixed views about the future of apprenticeships, with a third predicting standards and quality will stay the same and the remainder equally divided between an increase and a decline in standards.

8.3 Promoting the industry

Over half of employers have recruited younger workers in the last three years and over three quarters would consider taking on a young person in the next three years. Employers are clearly open to the suggestion, however negative views of the sector held by potential new recruits may be preventing them from attracting appropriate individuals, together with legal and regulatory requirements.

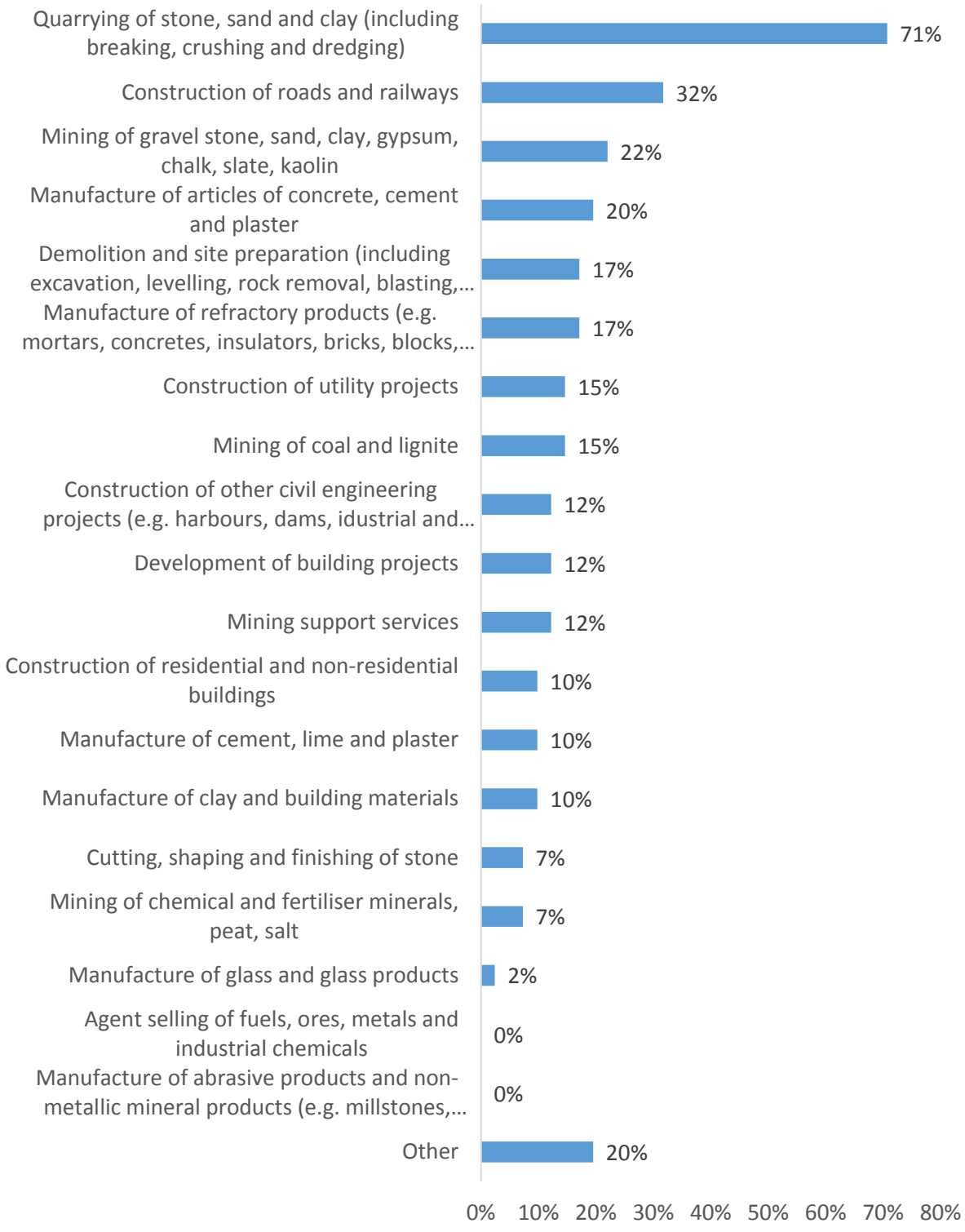
Awareness of schemes and programmes for promoting careers in science, technology, engineering and maths (STEM) related occupations is low and very few employers are currently involved with careers-related initiatives, such as STEM ambassadors.

Employers suggest they are generally willing to become involved in promoting the industry to young people – through engaging with schools and colleges – however less than a third are currently doing so.

In terms of attracting young people to the sector, employers appear to have an appetite to improve the situation. Most are willing to offer work experience, with 73% suggesting they would be willing to engage with schools and colleges in this way.

Appendix: Respondent profile

Figure 31: Activity within sector categories



(Percentage total exceeds 100% as respondents could select more than one answer)

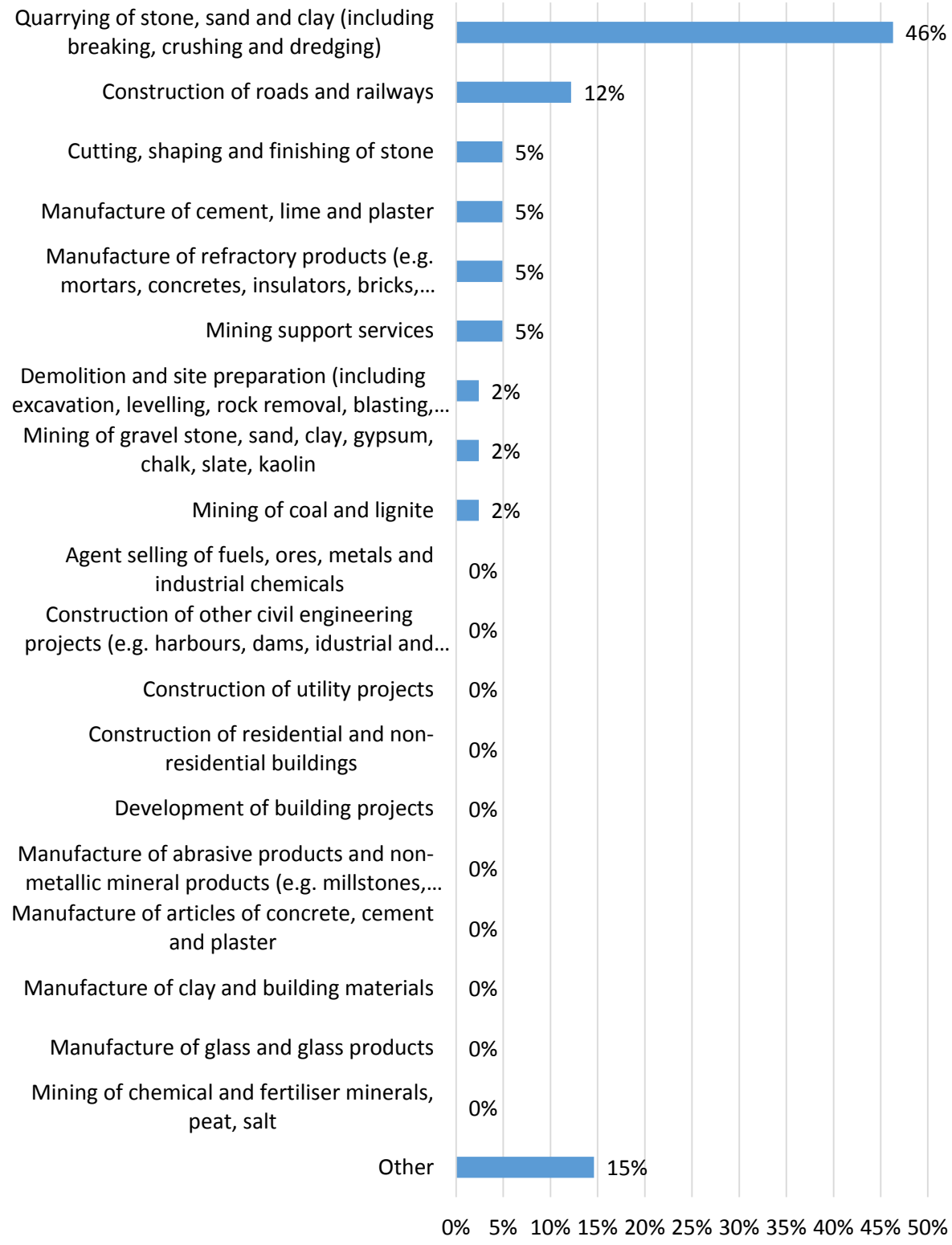
Base: 41 respondents

Eight respondents provided additional details, having answered 'other'. Of this group, four provide some sort of transport or road maintenance service

A small number were involved in other forms of product extraction or production, including gold, chalk, incinerator ash aggregate and dimensional stones

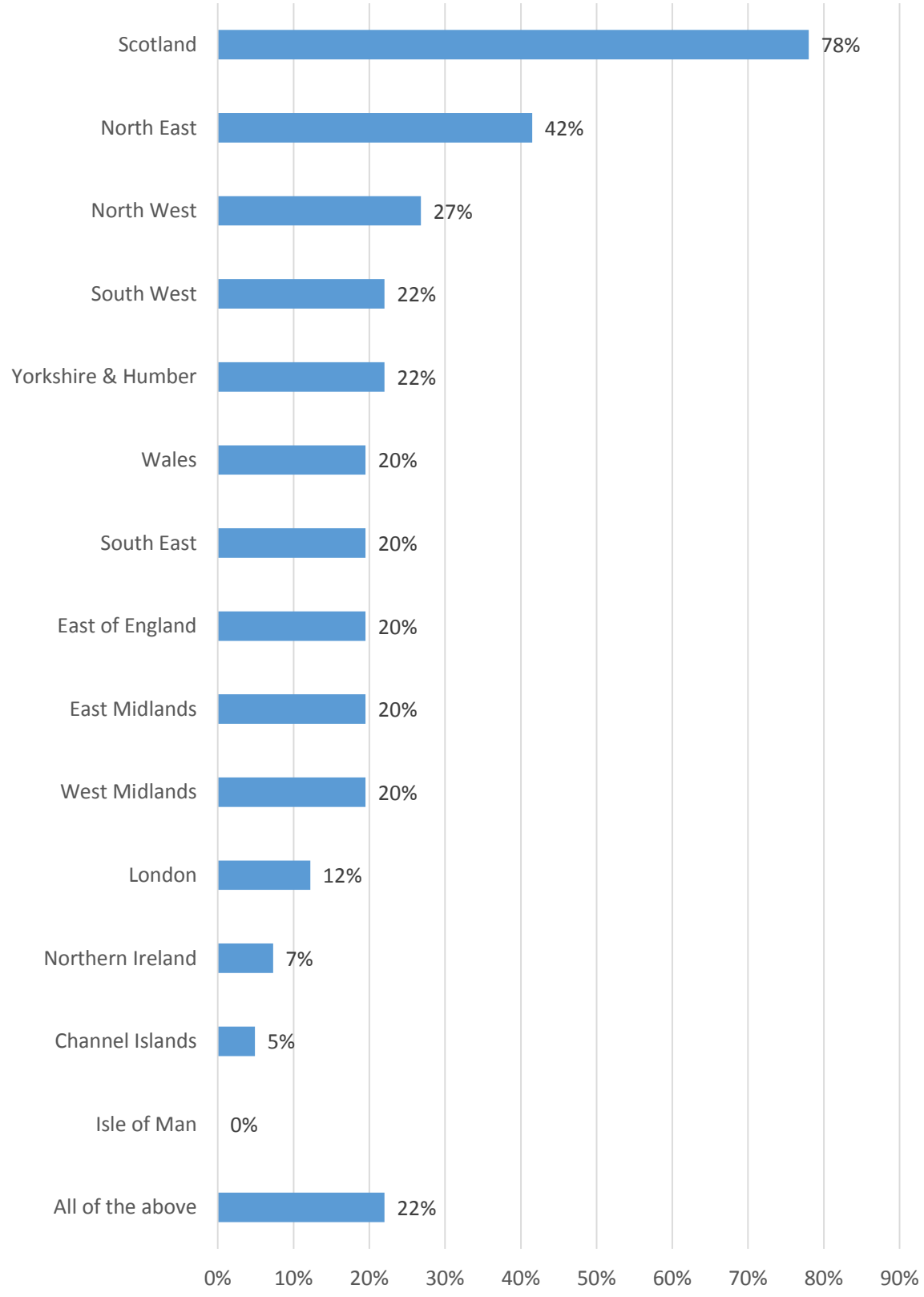
The remainder of respondents offered a range of services, from staff training to site logistics.

Figure 32: Largest share of business' activity



Base: 41 respondents

Figure 33: Where companies operate within the UK



(Percentage total exceeds 100% as respondents could select more than one answer)

Base: 41 respondents

Table 5: Respondent job roles

Commercial Director
Commercial Manager
Contracts Manager
Director
Extractives advisor
Group HR Advisor
Group HR Director
Head of Talent & Development
Health and Safety Co-ordinator
Health and Safety Director
Health and Safety Manager
Health, Safety & Training Manager
HRBP
HSEQ Manager
Managing Director
Mining Director
National Pre-Qualifications Manager
Office Manager
Operations Director
Operations Director
People Development
Planning Development & Training Manager
Quarry Manager
Training Manager