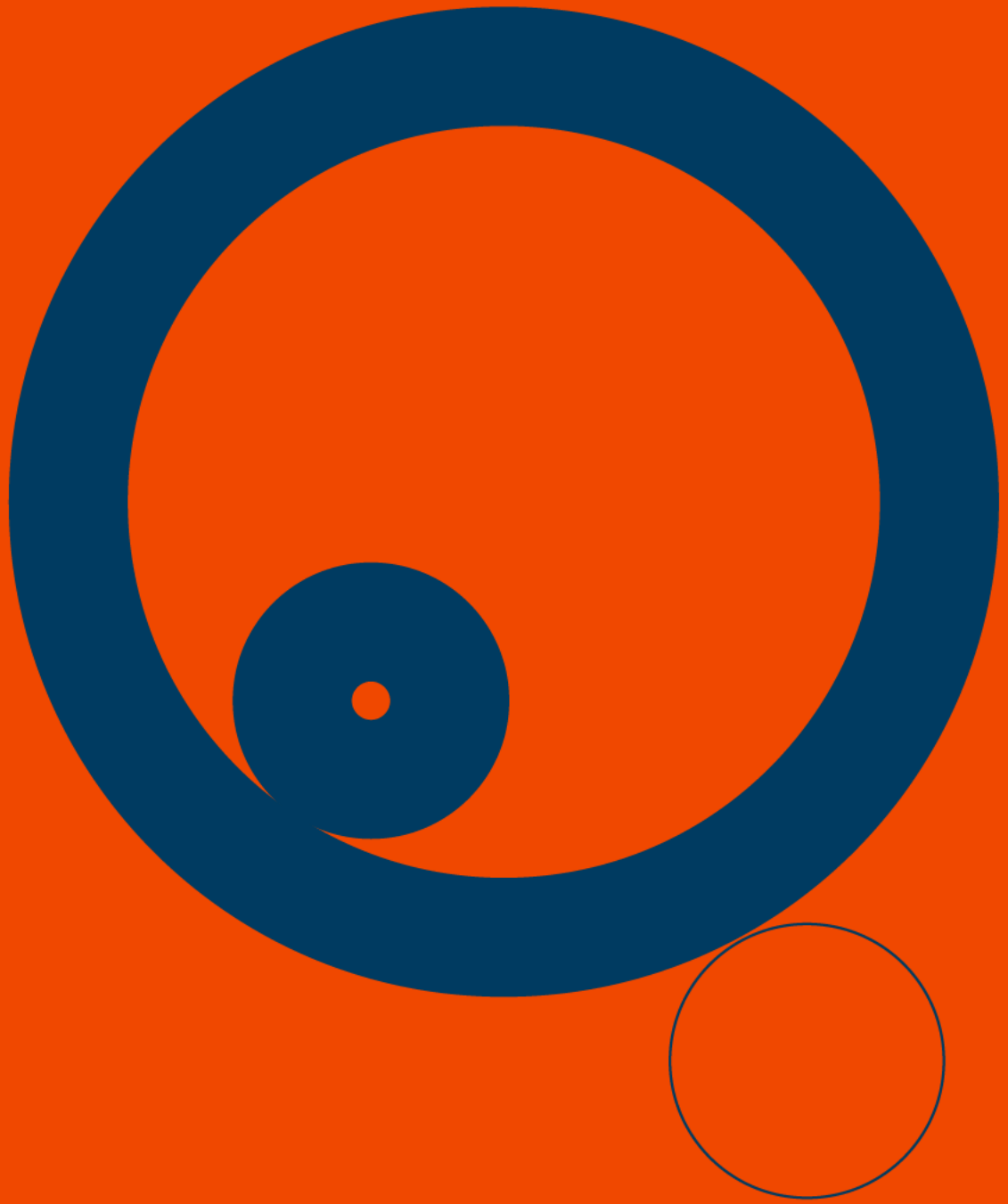
ConstructionSkills Scotland

Results from the Scottish
Construction Skills Survey 2003

CITB constructionskills



Report prepared for CITB-ConstructionSkills by:

IFF Research Ltd,
Chart House,
16 Chart Street,
London
N1 6DD

Tel: 0207 250 3035

Contents

Figures

2.0 BACKGROUND, METHODOLOGY & PROFILE

3.0 RECRUITMENT, LABOUR TURNOVER AND VACANCIES

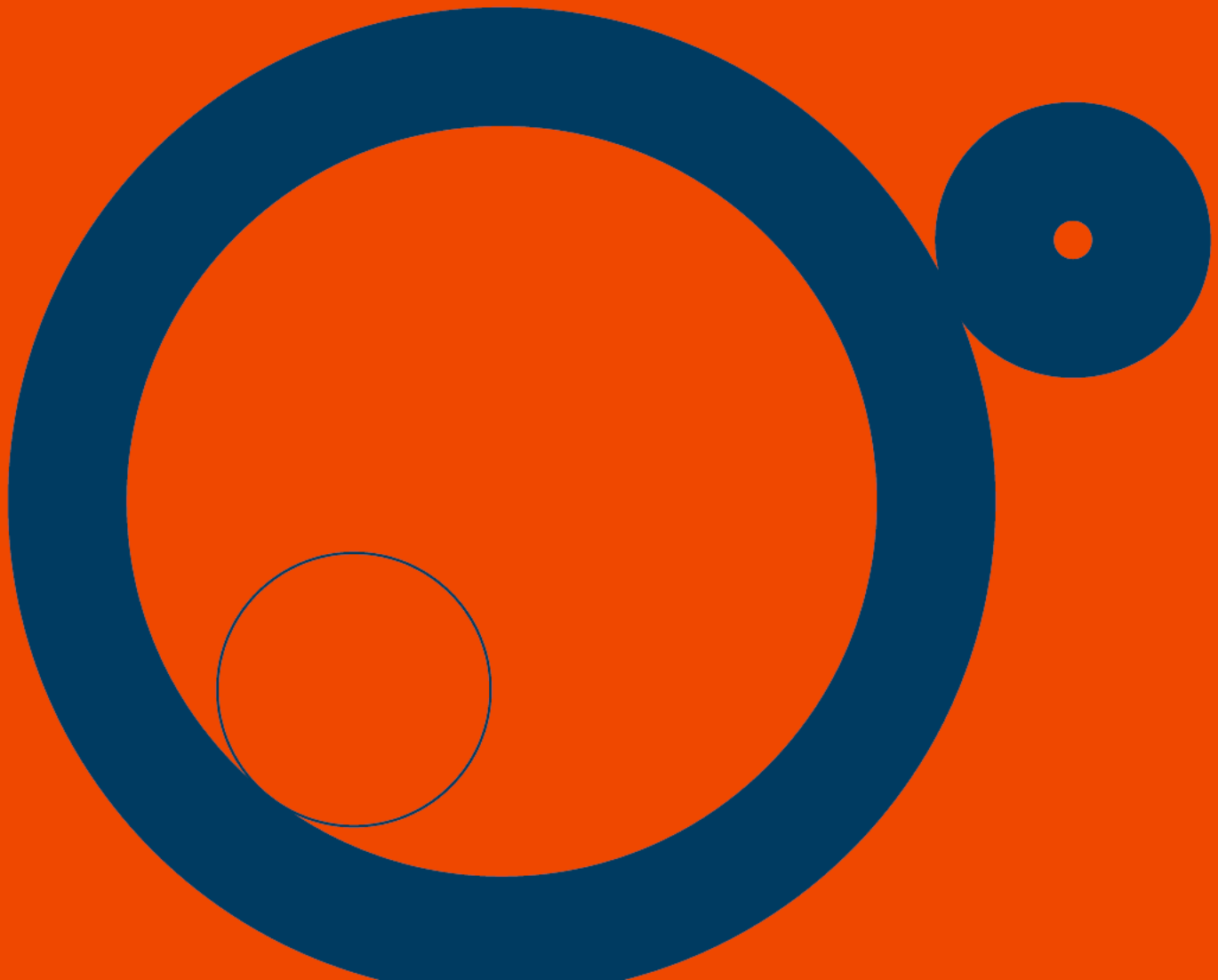
4.0 HARD-TO-FILL AND SKILL-SHORTAGE VACANCIES

5.0 INTERNAL SKILL DEFICIENCIES AND QUALIFICATION LEVELS

6.0 TRAINING

7.0 USE OF SUB-CONTRACTORS

1.0 Summary



1.0 Summary

1.1 This report summarises the findings of a survey of 2,000 Scottish construction employers (establishments) conducted by IFF Research on behalf of CITB-ConstructionSkills in August and September 2003. The broad aim of the survey was to produce robust and reliable data on the nature and extent of recruitment difficulties, skill gaps and training activity within construction employers. All employers other than 'one man bands' with no employees were included.

The Profile of Construction Employers

1.2 There are approaching 10,000 construction employers in Scotland employing approximately 109,500 employees.

1.3 The sector is dominated by a very large number of small establishments: over half (55%) have fewer than 5 staff, and four-fifths (79%) employ 10 or fewer staff. However, these smaller establishments only account for approximately a quarter of all employment. At the other end of the scale, establishments with 50 or more staff represent only 4% of all establishments but account for over two in five of all employment (42%).

1.4 Most establishments are single site operations (90%), and most describe their legal status as limited companies (42%) or as sole traders (38%).

Recruitment and labour turnover

1.5 Just over half of employers (53%) had recruited any staff in the last 12 months, with a total of approximately 24,704 staff taken on.

1.6 The likelihood of having recruitment increases with size, with approximately one in three (35%) of those with less than 5 staff having taken someone on in the last 12 months compared with nearly all of those with 50 or more staff (97%). Share of total recruitment by size of employer closely matches share of overall employment. For example, establishments with 2 to 4 employees account for 12% of all recruitment and 13% of total employment. Similarly the largest employers with 50 or more staff account for 39% of all recruitment.

1.7 The same pattern of the share of recruitment matching the share of employment is true by area. The one relatively exception is Forth Valley LEC, where there appears to have been relatively high levels of recruitment. This area accounted for 13% of total recruitment over the last 12 months, but only 6% of overall employment.

1.8 The average labour turnover experienced by construction companies in Scotland stands at 22% - meaning that, on average, employers are seeing a change of staff equivalent to around a fifth of their workforces on an annual basis. Labour turnover is highest among medium-sized companies (those with between 25 and 49 employees) and employers in the site preparation and gas/heating/appliance fitting sub-sectors.

1.9 Employers were generally optimistic about future growth (as they normally are when asked this question on labour market studies). Only 3% stated that they were planning to downsize their workforce. Three out of five (62%) were looking to maintain their workforce at approximately the same size, while a quarter envisage a slight increase (26%) and a small proportion (6%) anticipate a significant increase. Expectations of employment are highest among large employers, those in Glasgow and Renfrewshire, and those operating in site preparation or groundwork.

Vacancies

1.10 Just under a fifth (17%) of Scottish construction establishments had at least one vacancy at the time of the interview. This is slightly lower than the national average for all industry sectors found in the Scottish Employer Skills Survey 2003 (21%). A total of 3,300 vacancies were reported for the construction sector, representing approximately 3% of current employment.

1.11 Almost exactly half of the number of current vacancies (48%) occurred in establishments with 10 or fewer employees. This is despite the fact that only a quarter of total employment (28%) occurs among this size of employer. This is a strong indication of buoyant current conditions for small construction employers, and potential growth opportunities for such firms.

1.12 The main report provides details of the occupational profile of current vacancies. Vacancies for carpenters accounted for the largest single number of vacancies – 600, representing 18% of all reported vacancies. A large number of vacancies were also accounted for by operative positions (570 in total, 17% of all vacancies).

Hard-to-fill vacancies

1.13 Around one in eight Scottish construction establishments had a hard-to-fill vacancy at the time of interview (13%). Approximately 2,300 hard-to-fill vacancies were reported, meaning that about two thirds (68%) of all current vacancies were proving difficult to fill. This is quite a high proportion – by comparison the Scottish Employer Skills Survey 2003 (SESS2003) which covered all sectors found that 44% of all vacancies were described by employers as hard-to-fill.

1.14 The largest number of hard-to-fill vacancies is for carpenters – these account for 450 of the 2,300 hard-to-fill construction vacancies in Scotland. Hard-to-fill vacancies for painter/decorators also account for a comparatively large proportion (c. 300 vacancies), followed by hard-to-fill vacancies for plumbers (180), roofers/tilers (173) and bricklayers (166). All other individual occupations each account for fewer than 4% of hard-to-fill vacancies. Broadly the occupational profile of hard-to-fill vacancies reflects the occupational pattern of vacancies. One exception was for operatives which are comparatively 'under-represented' among hard-to-fill vacancies – they account for 17% of all vacancies but only 7% of hard-to-fill vacancies. This indicates that employers do not have as many difficulties filling these positions as they do recruiting tradesmen.

1.15 Half of hard-to-fill vacancies (54%) were seen to be a result of issues relating specifically to the skills sets of applicants, just over a third as a result of the work experience that applicants had had and a quarter as a result of the qualifications held by applicants. More than one of these issues was raised in relation to a considerable proportion of these vacancies. Just under half of vacancies were attributed in part to poor attitudes, levels of motivation or personality issues among applicants. Construction employers were more likely to attribute the hard-to-fill vacancies that they experienced to the skills, work experience and qualifications of applicants than was the case for employers across the whole Scottish economy in the SESS2003 study (the corresponding figures for Scotland as a whole were 33%, 24% and 9%). The difference in the figures for the proportion of vacancies that are hard-to-fill because of issues around qualifications of applicants is particularly marked indicating that qualifications play a greater part in construction recruitment than in other sectors.

Skill-shortage vacancies

1.16 A total of 7% of construction employers reported just under 1,400 current skill-shortage vacancies (i.e. hard-to-fill vacancies resulting from a lack of skills, qualifications or work experience among applicants). Hence these vacancies account for three in five of all hard-to-fill vacancies (60%).

1.17 The proportion of employers with skill-shortage vacancies increases with size of establishment, from 4% of the smallest establishments (with less than five employees) and 16%-17% of those at the larger end of the spectrum (with 25 or more employees). Medium-sized companies with between 25 and 49 employees were particularly likely to consider that their hard-to-fill vacancies were a result of skills issues – 73% of all hard-to-fill vacancies in this size bracket were attributed to skills, qualifications and/or work experience shortages among applicants.

1.18 By sector, the largest numbers of skill-shortage vacancies are found among construction employers in the fields of general building (440 vacancies), painting/decorating (170) and roofing (110). By occupation, the largest number of skill-shortage vacancies are found among carpenters/joiners (around 275 vacancies), with comparatively large numbers also found for painter/decorators (160), plumbers (114), bricklayers (113) and roofers/tilers (100).

1.19 The skills most likely to be seen as lacking in applicants for these positions were craft-specific skills. Nearly all (90%) of skill shortage vacancies were felt to be a result of a lack of these trade-specific skills. This does indicate that the recruitment problems that are being experienced are considered to be the result of a lack of craftsmen with the necessary hard technical skills in the market-place rather than being a result of applicants lacking 'soft/generic' skills (such as communication or customer handling). That said, more than one skill deficiency was mentioned in connection with two-thirds of vacancies (64%) and the 'other skills' most likely to be mentioned were problem solving skills (mentioned in connection with two-fifths of skill-shortage vacancies), communication skills and health & safety skills/knowledge (each mentioned in connection with a third of vacancies).

Skills gaps among existing workers

1.20 Approximately one in seven employers (15%) stated that they had at least one member of staff who they would not consider to be fully proficient. At an overall level, a total of around 6,200 skill gaps were reported – equivalent to 6% of the total workforce.

1.21 The proportion of employers reporting skill gaps increases steadily by size of establishment – this is entirely expected given the greater number of staff among whom skill gaps can exist. One in ten of the smallest establishments (10%) had at least one member of staff with skill deficiencies compared with two-fifths of those with in excess of 50 staff. Over half of the skill deficiencies for the whole construction sector in Scotland are found in establishments with over 50 employees (3,350 out of the 6,200 reported for the country as a whole, representing 54%). This is more than accounted for in terms of total employment within this size of employer (42%).

1.22 Engineering employers (36%) and those in Dumfries and Galloway (31%) were particularly likely to report skill gaps. However, by volume, the largest number of skill gaps were found in the Grampian region (around 1,650 employees lacked proficiency). This region accounts for around 11% of construction employment in Scotland but experiences almost a quarter of its skill gaps.

1.23 Although it might be felt that relatively few employers report skill gaps (15%), where they exist they have fairly serious implications for the business (only 30% of these employers report they have no real impact). The most commonly cited implication of skill gaps was increased operating costs – mentioned by 38% of employers with skill gaps. This direct cost on the bottom line was also demonstrated by the fact that just under a fifth of employers stated that skills gaps were causing them to lose business to competitors (17%). Others said the quality of service was suffering – 28% stated that they were having trouble meeting their own customer service objectives and 26% of these employers were having difficulty meeting their own quality standards. In other establishments the presence of skill gaps has a 'strangling effect' in terms of limiting the employers capacity to move forward – 23% were having difficulty introducing new working practices, 20% difficulties in introducing new IT and 16% delays developing new products and services.

Training

1.24 Half of construction employers had provided any training in the last 12 months (51%). This figure is below the average for Scottish employers across all sectors found in the Scottish Employer Skills Survey 2003 (64%). The propensity to provide training increases with size of organisation from two fifths of those with between 2 and 4 employees (37%) and almost all of those with in excess of 50 employees (93%). There was some variation by Scottish LECs, with employers in Glasgow and Dunbartonshire the most likely to have invested in training for their staff (64% and 61% respectively). There is also wide variation in the propensity to train by sub-sector. The highest levels of training activity are found among employers in the engineering, heating/gas/appliance fitting and plumbing sub-sectors (with around three-quarters of employers in each of these sub-sectors having invested in training for at least some of their staff over the last 12 months). The lowest levels of training activity are found in the glazing and flooring sub-sectors (35% and 37% respectively).

1.25 Two fifths had provided off-the-job training (44%) while only 8% had provided on-the-job training only. It is interesting to note that while the proportion providing off-the-job training increases with size of establishment the proportion using on-the-job training only remains relatively constant by size. This indicates that there are only a very small minority of employers that are able to meet all their training requirements through on-the-job training, and that a decision to invest in training generally means the arrangement of some form of off-the-job training.

1.26 A total of around 52,000 construction workers have received some form of training over the course of the last 12 months – equivalent to around 47% of the total workforce.

1.27 In terms of off-job training, employers were most likely to have invested in trade-specific or health & safety training for their staff (72% and 69% respectively of all those providing off-the-job training). Training on new equipment and first aid training had each been delivered off-the-job by around two-fifths of those providing off-the-job training. The type of training provided varied quite widely by occupation to which it was provided.

1.28 The hierarchy of the types of training provided on-the-job is broadly the same as for off-the-job training, with craft-specific skills the most likely to be developed, followed by health & safety training and training on new technology.

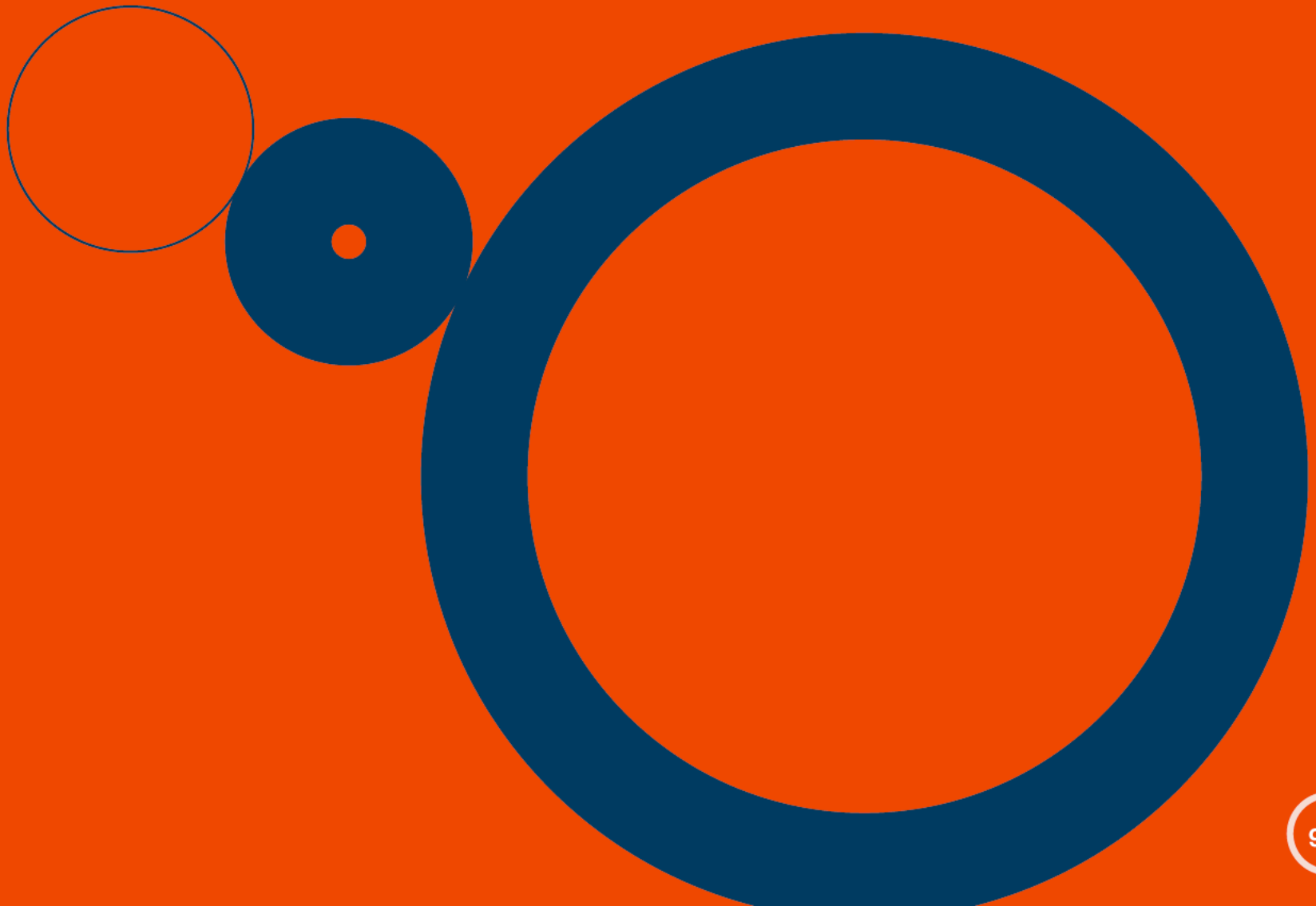
1.29 The key reason given for not providing training was simply that employers felt that their staff were already proficient and hence there was no need for training. It is always difficult to establish the extent to which it is genuinely the case that all employees have all the skills necessary to perform their job as well as is possible and to what extent employers are 'used' to a job role being done in a particular way and unable to see beyond this to how it could be done better. Small minorities of employers also stated that they didn't have time for training – either in terms of being able to spare staff from their everyday work role (13%) or, from a management perspective, having time to think about and plan for training due to other priorities (12%). Only one in eleven (9%) stated that they had not provided training because of cost concerns. There is little sign of a lack of local provision being a significant cause of non-provision of training, indeed this was only mentioned by 3% of non-trainers.

1.30 Only 5% of all construction employers had achieved IiP compared with an average of 17% for Scotland as a whole (from the Scottish Employer Skills Survey 2003). A further 7% stated that they were in the process of working towards IiP status and 11% indicated that they were interested in doing so. Attainment of the standard increased with size, with 18% of establishments with more than 25 staff having IiP status. Related to this, as many as 47% of employers involved in engineering were IiP companies.

1.31 Formal planning of training was relatively limited among construction employers, with a quarter stating that they did have a training plan in place (25%). As many as 11% expressed interest in developing such a plan with the vast majority of these (9% of all employers) stating that they would welcome help from CITB-ConstructionSkills in formulating a plan. This is clearly a relatively promising avenue for CITB-ConstructionSkills.

1.32 There was also widespread willingness to receive assistance from or work with the CITB-ConstructionSkills in other areas such as joining a general or a trade-specific training group, receiving a visit from a CITB-ConstructionSkills training advisor, and providing work experience. Between a third and two-fifths of employers were interested in receiving help or helping in each of these areas. Fewer (25%) were interested in receiving assistance on recruiting a new entrant to the construction sector. Overall, interest was common across all size and sector of employer, with a tendency for there to be greater interest among larger employers.

2.0 Background, methodology and profile



2.0 Background, methodology & profile

2.1 In Autumn 2003, CITB-ConstructionSkills in partnership with Futureskills Scotland commissioned IFF Research to undertake a skills survey of construction employers in Scotland. The study aimed to provide robust data on;

- The proportion of construction employers experiencing recruitment problems;
- The extent of recruitment of new construction labour market entrants;
- The proficiency of construction employees;
- The training strategies and practices adopted by construction employers;
- The use of sub-contractors.

2.2 A total of 2,000 interviews were carried out with construction employers across Scotland. Quotas were set to ensure representation of all employers by size and by Enterprise/LEC area. Sample was drawn from the Business Database formerly owned by Yell Data but now managed by Experian. The sample was supplemented by records from the CITB's own database to ensure full coverage. All establishments covered by the survey had a 2-digit Standard Industrial Classification (SIC) code of 45.

2.3 All interviewing was conducted using Computer Assisted Telephone Interviewing (CATI) from IFF's offices in central London, between August and September 2003. Each interview took an average of around 20 minutes to complete.

2.4 The survey was establishment based (i.e. information was collected on an individual site basis irrespective of whether or not the site formed part of a larger organisation) to better reflect the level at which skills deficiencies in the workforce are most immediately experienced.

The principal respondent was the senior person responsible for human resource or personnel issues. Generally, in establishments with 50 or more employees this was the human resource/personnel director or manager. In establishments with fewer than 50 employees (which represented the vast majority of those interviewed) it was the owner, proprietor or general manager.

2.5 All establishments which had 2 or more full or part-time workers on site were in scope for the survey. Only 'one-man-bands' were screened out of the survey.

FIGURE 2.1
Summary of question coverage

Key measures	
Vacancies, hard-to-fill vacancies and skills shortage vacancies	Employers are asked whether they have any vacancies at all, and if so whether any of them are hard-to-fill. Vacancies and hard-to-fill vacancies are recorded in up to six occupational categories for each establishment.
	Hard-to-fill vacancies are further sub-categorised into those that are skills related and those that are not. The former are termed skills shortage vacancies and are defined as hard-to-fill vacancies that are caused by a lack of applicants with the required qualifications, work experience and/or skills.
Skills Gaps	Skill gaps occur where employees are not fully proficient in their job roles. They are measured at an occupational level through the question *"How many of your existing staff at this establishment employed as … [OCCUPATION] … would you regard as being fully proficient at their current job?"* Where the number of fully proficient staff in an occupation is smaller than the total number of staff employed in that occupation, the establishment is said to have an internal skill gap.

2.6 The questionnaire used in the research is based in large part on the Scottish Employers Skills Survey and all key measures from that survey are comparable with the definitions used here. *Figure 2.1* summarises some of the key measures that the survey collects and the questions used to establish these measures.

Results from the Scottish Employers Skills Survey are published as 'Skills in Scotland 2003', and are available from **www.futureskillsscotland.org.uk**, or in hard copy by calling **0141 228 2000** and quoting reference SE/3071/Mar 04 Version 2.

Achieved sample

2.7 A breakdown of the 2,000 achieved interviews by size, geographical area and sub-sector as shown in *Figure 2.2*. These should be borne in mind when we discuss results by sub-group within this report. For example, by LEC fewest interviews were achieved in the Borders (60 interviews), and by sub-sector fewest were undertaken in Steel/metalwork fabrication and Site preparation (44 and 52 interviews respectively).

FIGURE 2.2
Achieved sample by size, area and sub-sector

	Number of interviews	% of Achieved sample
Size		
2 to 4 employees	654	33
5 to 10 employees	678	34
11 to 24 employees	386	19
25 to 49 employees	184	9
50+ employees	98	5
Area		
Highlands & Islands Enterprise	334	17
Scottish Enterprise	1666	83
Ayrshire	117	6
Borders	60	3
Dunbartonshire	73	4
Dumfries & Galloway	94	5
Fife	140	7
Forth Valley	108	5
Glasgow	126	6
Grampian	214	11
Lanarkshire	200	10
Lothian & Edinburgh	286	14
Renfrewshire	98	5
Tayside	150	8

	Number of interviews	% of Achieved sample
Sub-sector		
General building	457	23
Joinery/carpentry	158	8
Painting/decorating	178	9
Roofing	162	8
Tiling/plastering	64	3
Glazing	82	4
Site preparation	52	3
Engineering	72	4
Flooring	55	3
Plumbing	157	8
Electricians	179	9
Gas/heating/appliance fitting	92	5
Plant hire/ground work	67	3
Steel/metalwork fabrication	44	2
Other	181	9

Weighting/Grossing up

2.8 At the analysis stage results were grossed up to the population estimates for construction sector employers in Scotland, these derived from analysis run by ONS (Office for National Statistics). This grossing up process was undertaken separately by size band within individual Scottish Enterprise LEC and within Highland and Islands (HIE) overall. Hence the results presented are representative by area and by size of employer for the (approaching) 10,000 construction establishments with employees in Scotland. Separate weighting was also carried out for employee measures (e.g. total numbers employed, and the occupational profile of those employed) and hence the sample is representative of the c. 109,500 staff employed in construction establishments with at least one employee.

2.9 All results in this report are based on these grossed up figures, though on tables and charts we show the unweighted base as an indication on the number of interviews on which a particular result is based.

Profile of construction employers

2.10 Before we go on to look at the findings from the survey in more detail, this section looks briefly at the profile of construction employers and employees in Scotland in terms of size, area and sub-sector (based on grossed up figures rather than unweighted as in *Figure 2.2*), and then contractor status, legal status, whether or not they are part of a larger organisation and the type of work that they have been engaged with over the last 12 months.

FIGURE 2.3
Profile of employers and employment by size, area and sub-sector (weighted)

	Employers	Employment
Size	%	%
2 to 4 employees	55	13
5 to 10 employees	24	15
11 to 24 employees	10	14
25 to 49 employees	5	16
50+ employees	4	42

	Employers	Employment
Area		
Highlands & Islands Enterprise	13	10
Scottish Enterprise	87	90
Ayrshire	6	5
Borders	3	2
Dunbartonshire	4	3
Dumfries & Galloway	4	3
Fife	6	5
Forth Valley	5	6
Glasgow	9	13
Grampian	10	10
Lanarkshire	12	13
Lothian & Edinburgh	14	17
Renfrewshire	5	5
Tayside	8	8
Sub-sector		
General building	22	29
Joinery/carpentry	9	4
Painting/decorating	10	6
Roofing	8	7
Tiling/plastering	4	2
Glazing	4	5
Site preparation	2	2
Engineering	3	11
Flooring	3	3
Plumbing	8	4
Electricians	9	7
Gas/heating/appliance fitting	5	3
Plant hire/ground work	3	3
Steel/metalwork fabrication	2	3
Other	9	11

2.11 Clearly, the vast majority of construction establishments are small, with over half (55%) employing fewer than five staff, and four in five (79%) employing 10 or fewer. Employers in the Highlands and Islands area were smaller than average with almost two thirds (64%) employing less than five staff.

2.12 As the profile of employment shows (in the right hand column of *Figure 2.3*) although large sites with 50 or more staff account for only 4% of establishments, they account for 42% of construction employment. Hence their disproportionate importance is clear.

2.13 By area, the proportion of overall employment tends to closely reflect the overall proportion of establishments falling within that area. By sector, however, it is clear that Engineering and General building firms are larger than average, in that they account for a greater share of employment (11% and 29% respectively) than establishments (3% and 22%).

2.14 *Figure 2.4* looks at the establishment and legal status of our sample.

2.15 In terms of their legal status, most were operating as limited companies (42%) or sole traders (38%). Size was a key determinant in this regard. Over half (55%) of those with less than 5 employees were operating as sole traders, this figure falling to 26% among those with 5–10 staff, and 11% of those with 11-25 employees (no large establishment were operating as sole traders). Those operating as a partnership (17% overall) varied relatively little between those sized 1-4, 5-10 and 11-24 (though predictably falls away among larger establishments).

2.16 Area and sector results largely follow these size trends. Hence establishments in the Highlands and Islands were much more likely than in Scottish Enterprise to be sole traders (49% compared with 36%). By sector, establishments operating in carpentry/joinery (57%) and tiling/plastering (63%) were particularly likely to be sole traders, compared with only 17% among those in Engineering.

2.17 Most employers were single site organisations (90%). This varied by size, with nearly all those with 5 or fewer staff being the only site of the organisation (96%), this falling to two in five (38%) among those employing 50 or more staff.

FIGURE 2.4
Legal and site status

Base = All employers

Legal status	% of all establishments
Sole trader	38
Partnership	17
Limited company	42
Other	3
Site status	
Only site	90
Multiple site – this site HQ / regional HQ	6
Branch of multiple site organisation	4

2.18 *Figure 2.5* shows the type of projects worked on and the mode of operation among our sample.

FIGURE 2.5
Types of project worked in the last 12 months and mode of operation

Base = All employers	
Types of project in last 12 months	**% of all establishments**
Housing repair, maintenance and improvement work	75
Other private sector repair, maintenance and improvement work	60
New private sector housing	49
Other public sector repair, maintenance and improvement work	39
New commercial building work for the private sector	29
New industrial building work for the private sector	24
Other types of new work for the public sector	22
New building work for public housing	20
New infrastructure	10
Contractor status; ever work as	
Main contractor	63
Labour-only sub-contractor	21
Full sub-contractor	52

2.19 Most employers had worked on a wide variety of types of project in the last 12 months (this is apparent from the extent to which the figures add to over 100%). The areas with the widest level of involvement were housing repair, maintenance and improvement work, and other private sector repair, maintenance and improvement work, each worked on by well over half the sample.

2.20 New infrastructure projects was the most 'exclusive' type of work, with only 10% of employers involved in such projects over the last 12 months. This was much higher among those involved in Plant hire/groundwork (44%), Steel metalwork and fabrication (35%), Engineering (35%) and Site preparation (34%). Predictably as well, the likelihood of involvement in such projects increases with the size of the employer.

2.21 Differences by area were relatively slight, though there were signs of higher than average new commercial building work in Dunbartonshire, Glasgow and Lothian & Edinburgh.

2.22 Most employers appear to operate with a mix of contractual arrangements. For example, among the two-thirds (63%) of employers operating as a main contractor over the last 12 months, 40% had also worked on projects as a full sub-contractor. Similarly half (52%) of our sample had operated as a full sub-contractor in the last 12 months – among these respondents, half (49%) had also been a main contractor in that time period.

2.23 There was no particularly clear pattern by size, other than the largest establishments (with 50 plus staff) being different from the smaller size bands. These largest establishments were more likely than average to have operated as a main contractor in the last 12 months (75%), but they were also more likely than average to have operated as a sub-contractor (58%). They were very unlikely to have operated as a labour-only sub-contractor (only 9% had done so). Those with less than 5 staff were the most likely to have worked in this way (25%), although the figure was relatively high (17%) among those with 5-49 staff at the establishment. Labour-only sub-contracting was more common in some sectors than others, and was higher among firms in tiling / plastering (29%), site preparation (28%) and plumbing (26%).

3.0 Recruitment, Labour Turnover and Vacancies

3.0 Recruitment, Labour Turnover and Vacancies

3.1 This section looks at the extent of recruitment activity over the last 12 months and the levels of labour turnover that have been experienced by Scottish construction establishments. We also look at employers projections for the increase/decrease in the size of their workforce over the course of the next 12 months. It then looks in detail at the proportion of employers that have recruited employees with no previous experience of the construction industry over the last 3 years (and the ages of these recruits). Finally we look at the extent to which employers had vacancies at the time of interview and examine the number of these vacancies and the occupations for which they existed. Chapter 4 examines the specific issue of whether these vacancies have been proving hard-to-fill, and whether skills deficiencies in applicants has been a cause.

Recruitment

3.2 Just over half of employers (53%) had recruited any staff in the last 12 months, with a total of approximately 24,704 staff taken on. Results are summarised on *Figure 3.1* (figures for the number of people recruited have been rounded to the nearest 25).

3.3 The likelihood of having recruitment increases with size, with approximately one in three (35%) of those with fewer than 5 staff having taken someone on in the last 12 months compared with nearly all of those with 50 or more staff (97%). These largest establishments account for a significant share of the total number of people recruited, having taken on two in five of all recruits (39%). However, within size band the share of total recruitment closely matches share of employment (as shown earlier on table 2.3). For example, establishments with 2 to 4 employees account for 12% of all recruitment and 13% of total employment, while those with 5-10 employees account for 13% of recruitment and 15% of overall employment.

3.4 The same pattern of the share of recruitment matching the share of employment is true by area. The one relatively exception is Forth Valley LEC, where there appears to have been relatively high levels of recruitment. This area accounted for 13% of total recruitment over the last 12 months, but only 6% of overall employment.

FIGURE 3.1

Proportion of employers recruiting and numbers recruited by size, and area

	Unwt base	Employers recruiting %	Numbers recruited	Proportion of total construction recruitment
Overall	2000	53	24,700	100%
Size				
2 to 4 employees	654	35	3,025	12%
5 to 10 employees	678	64	3,200	13%
11 to 24 employees	386	82	4,225	17%
25 to 49 employees	184	88	4,475	18%
50 + employees	98	97	9,750	39%
Area				
Highlands & Islands Enterprise	1666	51	2,568	10%
Scottish Enterprise	334	54	22,136	90%
Ayrshire	117	50	950	4%
Borders	60	46	675	3%
Dunbartonshire	73	38	775	3%
Dumfries & Galloway	94	49	525	2%
Fife	140	56	900	4%
Forth Valley	108	47	3,300	13%
Glasgow	126	54	3,300	13%
Grampian	214	55	2,600	11%
Lanarkshire	200	54	2,725	11%
Lothian & Edinburgh	286	59	3,600	15%
Renfrewshire	98	48	1,325	5%
Tayside	150	63	1,450	6%

Labour Turnover

3.5 The degree of recruitment activity over the last 12 months does not tell us whether establishments are larger or smaller now than before, nor, related to this, whether the recruitment is replacing staff who have left. The labour turnover measure is an attempt to assess the degree of labour market activity labour, and this is calculated by adding together all recruits and all leavers over the course of the last 12 months and expressing this sum as a percentage of twice the number of staff that were employed 12 months ago i.e.:

$$\text{Labour turnover} = \frac{\text{Recruits + Leavers}}{\text{2 (Employees 12 months ago)}} \times 100$$

3.6 This equation means that if all the staff that were employed this time last year left and the same number of recruits had been taken on to replace them then the labour turnover figure would be 100%. In some establishments the labour turnover figure exceeds 100% often because they have a highly seasonal workforce. For example if an establishment employed 10 full time staff at this time last year (all of who are still employed now) but over the course of the past 12 months had taken on 100 casual staff for a short period of a few months (so that they have now left), then their labour turnover would be 1000%. New start-ups (i.e. those who were not in business a year ago) have to be included from this calculation because they had no staff 12 months ago.

3.7 The average labour turnover experienced by construction companies in Scotland stands at 22% - meaning that, on average, employers are seeing a change of staff equivalent to around a fifth of their workforces on an annual basis. This figure is actually slightly lower than that found for the whole Scottish economy in the SESS2003 study (35%) indicating that construction employers experience a greater degree of stability than those in other sectors. Well over a third of Scottish construction companies (37%) have seen no turnover in their workforce over the course of the last year while one in eight have seen turnover in excess of 50%.

3.8 *Figure 3.2* shows the variation in labour turnover by size of establishment. Inevitable disparities in the distribution of labour turnover values occur by size as a simple function of the numbers of staff employed. In a very small establishment, a single leaver accounts for a high proportion of the overall staff – hence in the 2-4 sizeband, establishments almost split just into those who have experienced no labour turnover and those who have experienced quite a high turnover. The average labour turnover for these smallest establishments stands at 20%. There is some consistency across establishments with between 5 and 25 employees (with the average labour turnover experienced varying between 20 and 24%) – and actually turnover among the very largest establishments is at a similar level. However, the medium-sized establishments (with between 26 and 49 employees) have tended to experience slightly higher levels of labour turnover (35% on average).

FIGURE 3.2
Labour turnover by size of establishment

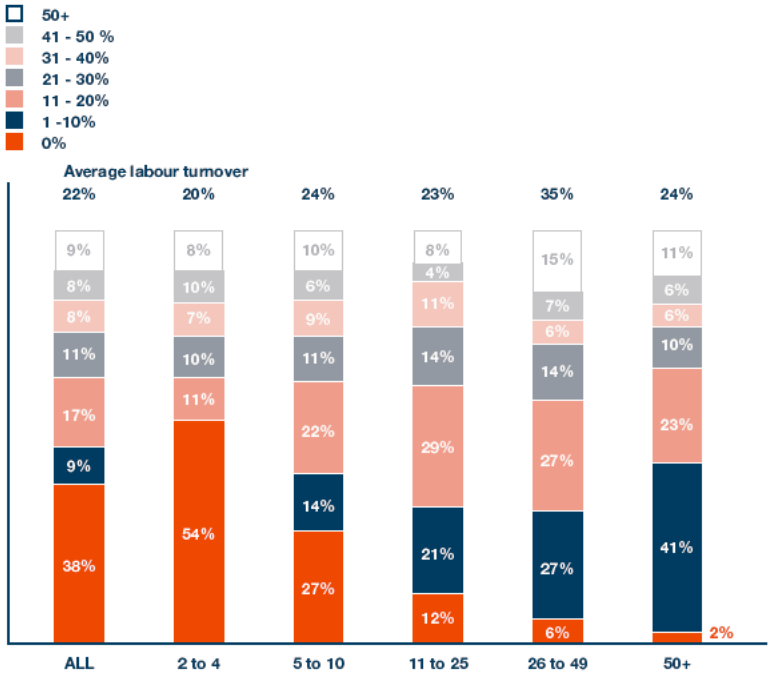


FIGURE 3.3

Labour turnover by area

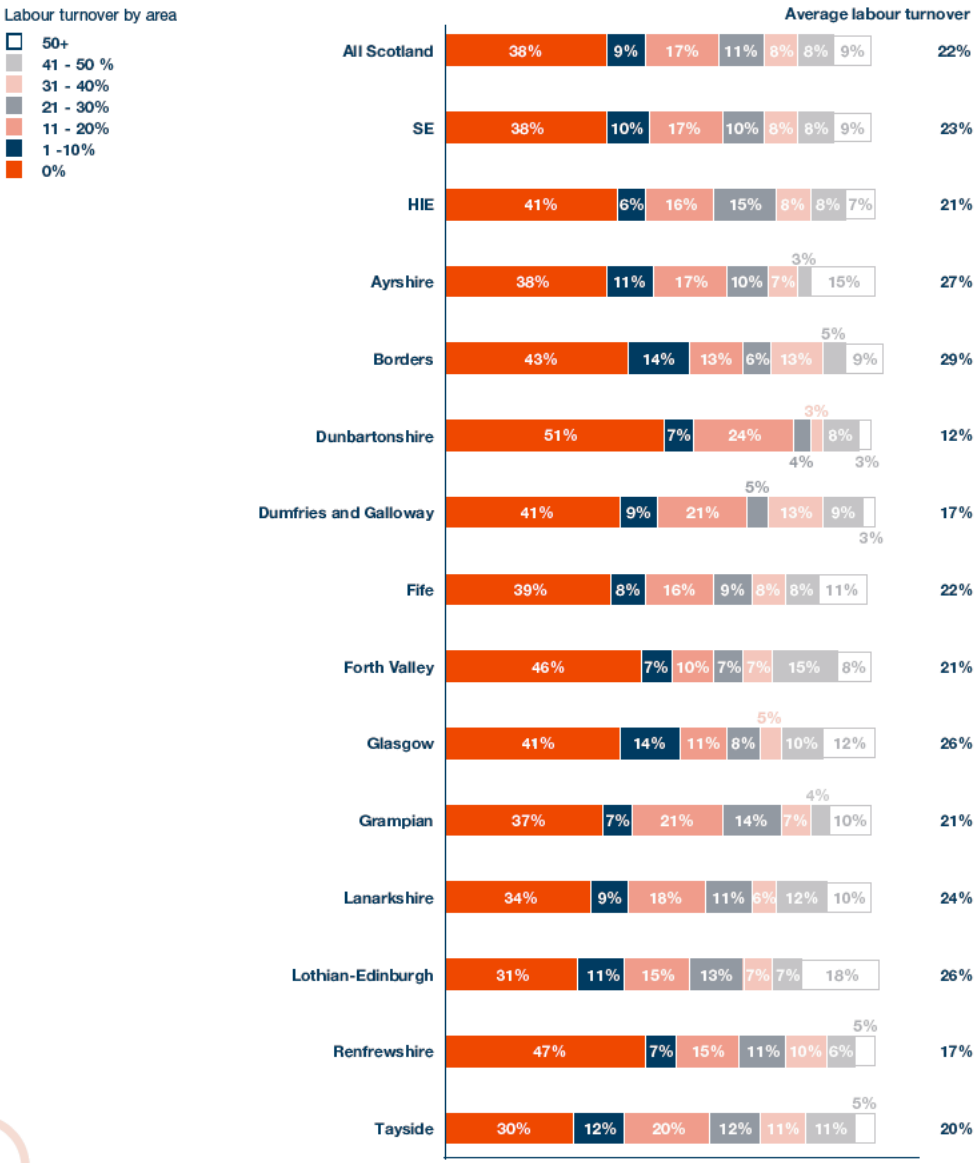
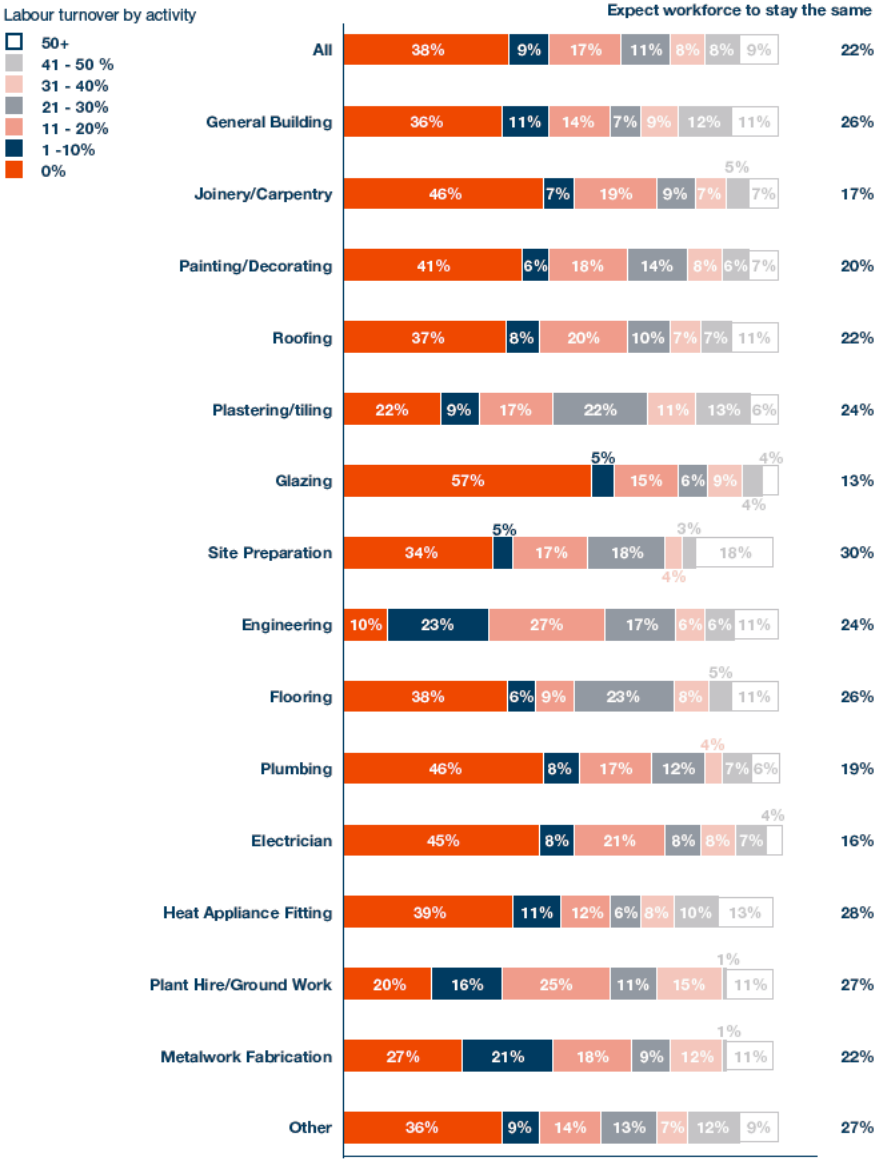


FIGURE 3.4

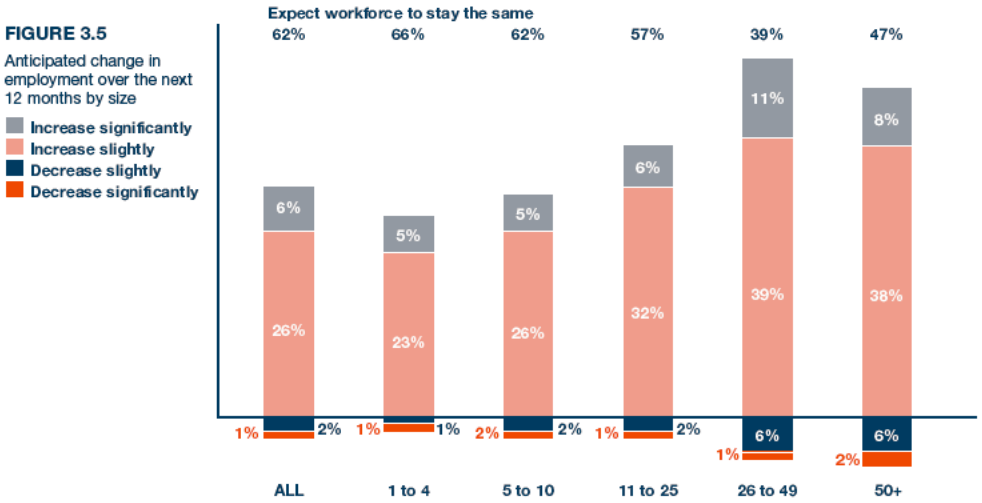
Labour turnover by activity



3.9 *Figure 3.3* looks at the same information by Enterprise and LEC area. This analysis shows that the average labour turnover is broadly the same across the two Enterprise areas (23% for the Scottish Enterprise area and 21% for the Highlands & Islands) Among the Scottish Enterprise LECs the highest levels of turnover are found in Borders (29%), Ayreshire (27%), Glasgow (26%) and Edinburgh & Lothian (26%). The proportions of employers who have experienced no staff turnover is largest in Dunbartonshire (51%).

3.10 In *Figure 3.4* we examine labour turnover by main activity of establishment. These figures show the highest average labour turnover figures among employers in the fields of site preparation and gas/heating/ appliance fitting (30% and 28% respectively). The lowest levels of average labour turnover are experienced in the glazing sub-sector (13% average turnover with 57% of employers having experienced no turnover at all) and are also low in the electrician (16%) and joinery/carpentry (17%) sub-sectors.

FIGURE 3.5
Anticipated change in employment over the next 12 months by size



Forecasts for labour increase/decrease over the next 12 months

3.11 Employers were asked whether they envisaged the size of their workforce increasing or decreasing over the course of the next 12 months, and whether any change would be slight or significant.

3.12 Employers were generally optimistic with only 3% stating that they would be looking to downsize their workforce. Three out of five (62%) will be looking to maintain their workforce at approximately the same size while a quarter envisage a slight increase (26%) and a small proportion (6%) anticipate a significant increase.

3.13 Larger employers were more likely to envisage increases *(Figure 3.5)* – just under half of those with in excess of 50 employees stated that they anticipated an increase in the size of their workforce (46%) compared with just under a third (28%) of those at the smallest end of the spectrum (with between 2 and 4 employees). However they were also slightly more likely to envisage decreases (8% compared with only 2% of establishments with 2-4 employees).

3.14 Looking at the same information by geographical area *(Figure 3.6)* shows that there is little variation in the anticipated change in employment in the forthcoming year by Enterprise area (33% of those in the Scottish Enterprise area anticipate an increase compared with 30% of those in the Highlands & Islands). The Scottish Enterprise LECs that are least likely to anticipate a growth in their construction workforce are Borders (24%), Dumfries & Galloway (25%) and Tayside (26%). Expectations of employment are highest in Glasgow (40%) and Renfrewshire (39%).

3.15 Examining anticipated employment change by main activity at the site shows that those working in site preparation are the most likely to anticipate an increase (29% anticipated a slight increase and 25% a significant increase) closely followed by those working in the field of plant hire/groundwork (46% slight and 4% significant). Employers in plastering/ tiling and electricians were the least likely to anticipate a workforce increase.

FIGURE 3.6

Anticipated change in employment over next 12 months by area

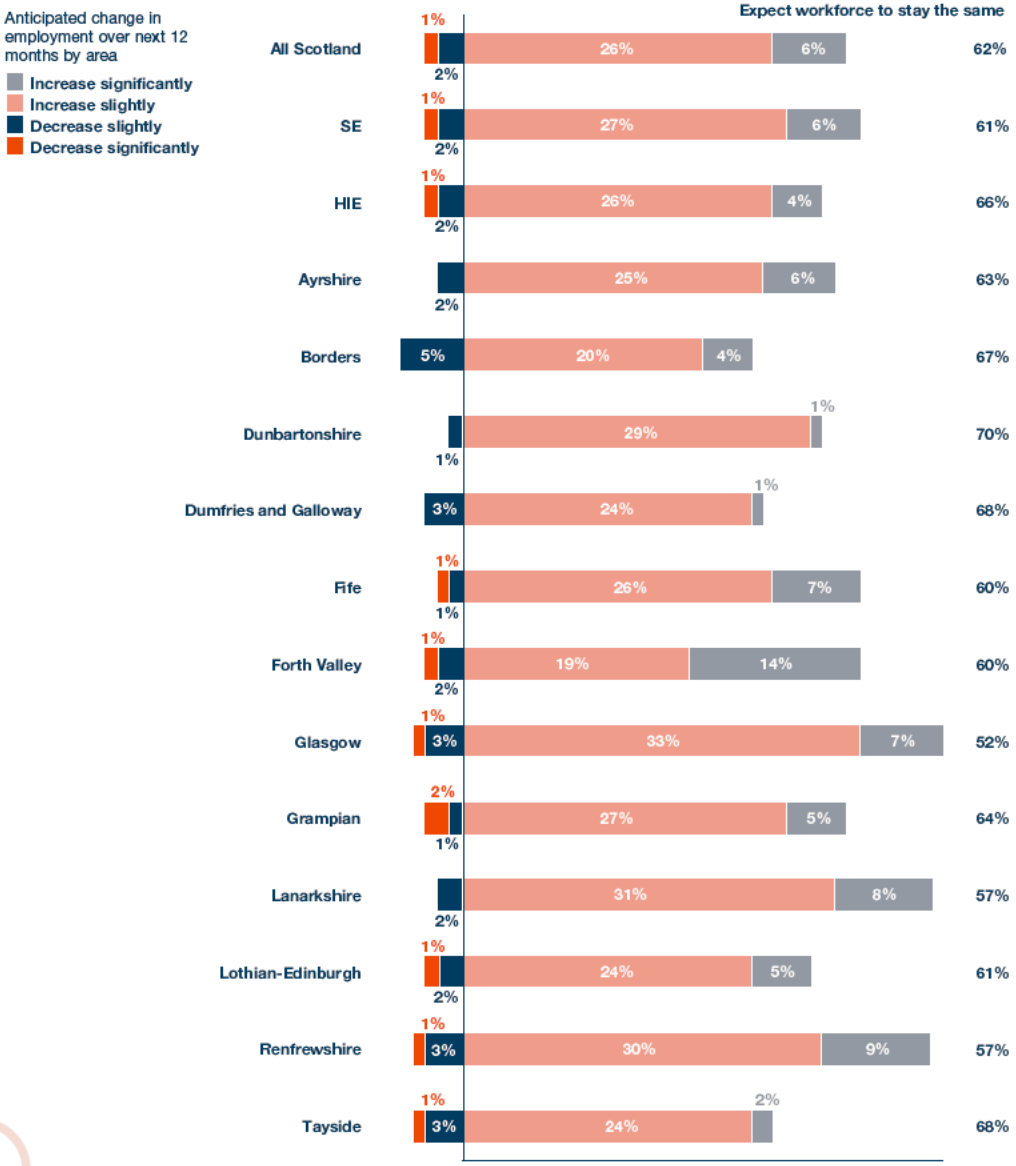
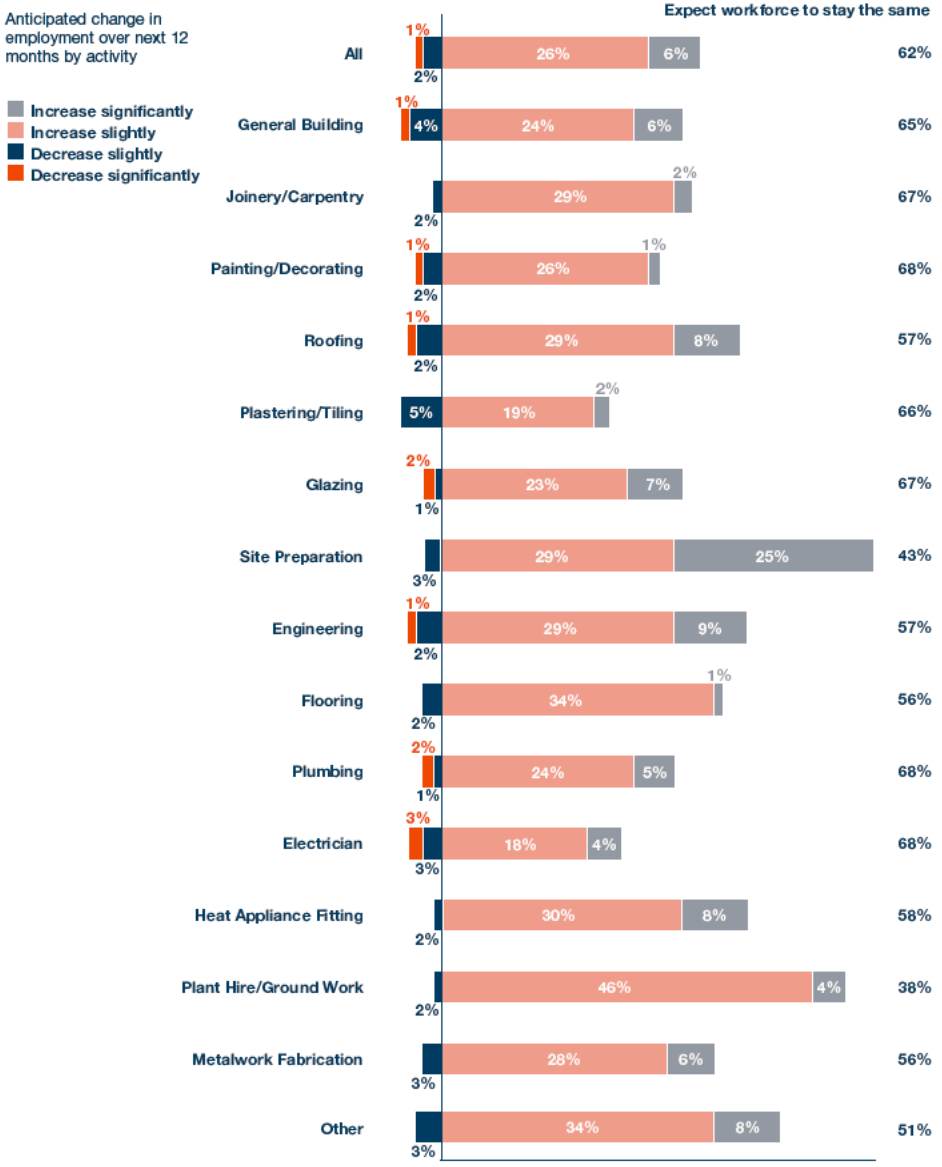


FIGURE 3.7

Anticipated change in employment over next 12 months by activity

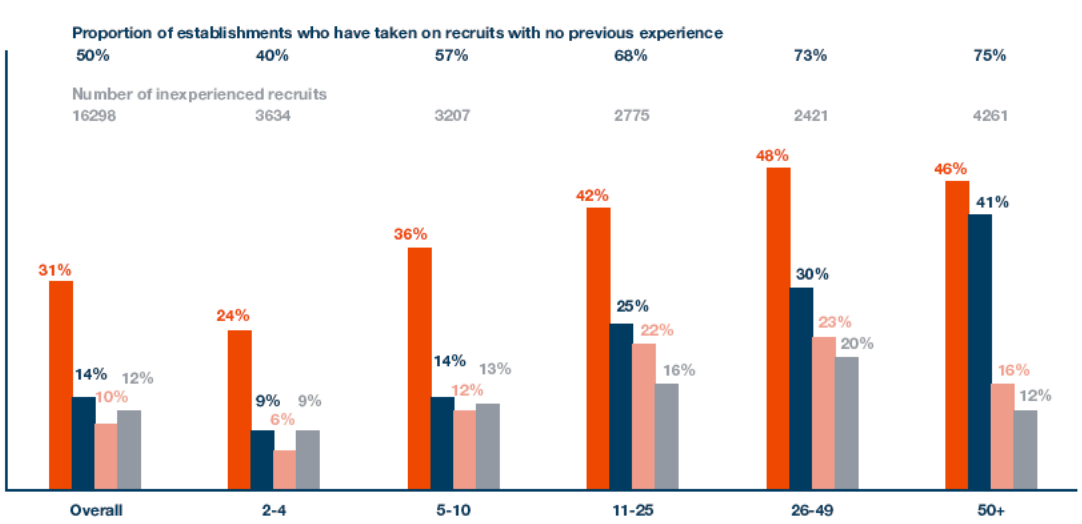


Recruitment of inexperienced staff

3.16 All employers were asked whether they had taken on any staff who had had no previous experience of work in the construction sector over the course of the last 3 years. Those who had taken on such staff were asked what occupations they had taken these recruits in to and also about the age of these recruits.

3.17 *Figure 3.8* shows the proportion of employers who had taken on recruits new to the sector, the proportion who had taken on different ages of such recruits – split into the following age bands 16-17, 18-19, 20-24 and 24+ - and how these results differ by size of establishment. The proportion who had taken on any inexperienced recruits and the total number of inexperienced recruits taken on over the last 3 years by each sizeband is also shown.

FIGURE 3.8
Recruitment of inexperienced recruits by size of employer and age of recruit



3.18 Half of all employers (50%) have taken on inexperienced recruits over this time period. Employers are most likely to have taken on inexperienced recruits aged either 16 or 17 (31% of establishments have taken on recruits new to the sector in this age bracket). Around one in eight employers have taken on recruits in each of the older age bands (18-19, 20-24 and 25+). A total of around 16,300 individuals with no previous experience of working in construction have been taken on by Scottish construction employers over the last 3 years.

3.19 The proportion of employers who had recruited individuals with no previous experience of the sector increased from 40% of the smallest companies (those with between 2 and 4 employees) to three-quarters of those with in excess of 50 employees. The fact that larger companies are more likely to have taken on inexperienced recruits is likely to be largely a function of the fact that larger firms are more likely to recruit, but they are also more likely to have formal, trainee / apprenticeship schemes. Comparison of the actual numbers of recruits taken on shows that just over 3,600 inexperienced recruits have been taken on by the smallest employers over the course of the last 3 years – equating to a fifth of all such recruits. Over the same period, employers with in excess of 50 employees have taken on 4,300 recruits (26% of all in experienced recruits taken on).

3.20 While the proportion of employers who have taken on recruits in each age-band increases with size of establishment, the difference is most dramatic in the case of inexperienced recruits aged either 18 or 19. Only one in eleven employers with between 2 and 4 employees had taken on an inexperienced 18-19 year old compared with 41% of those with more than 50 employees.

FIGURE 3.9

Recruitment of inexperienced recruits by Enterprise area and age of recruit

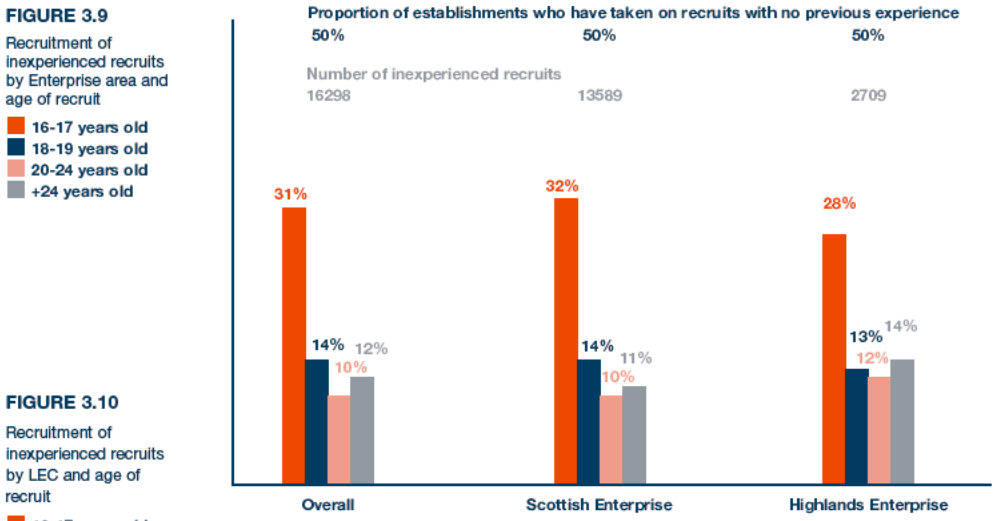
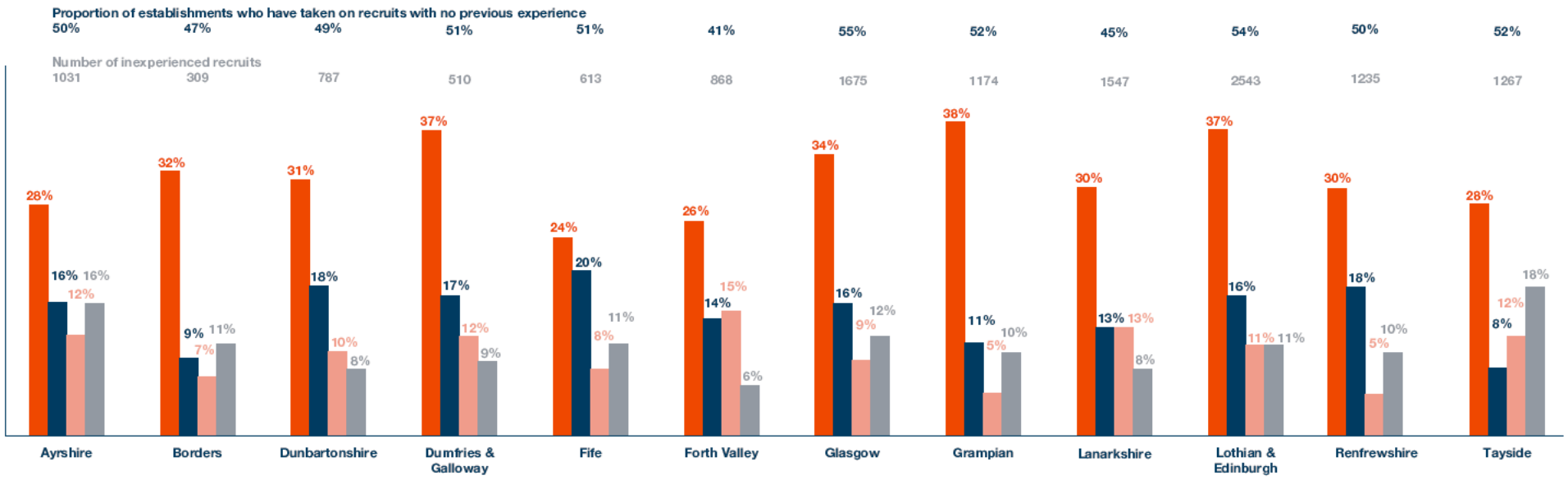


FIGURE 3.10

Recruitment of inexperienced recruits by LEC and age of recruit



3.21 *Figures 3.9* and *3.10* show the variation in the recruitment of inexperienced recruits by Enterprise area and by LEC within the Scottish Enterprise area.

3.22 The proportion of employers who have taken on inexperienced recruits over the last three years is the same in the Scottish Enterprise and Highlands & Islands Enterprise areas (50%). However the larger number of employers in the Scottish Enterprise area means that they account for considerably more inexperienced recruits; of the 16,300 inexperienced recruits taken on, 13,600 were taken on by Scottish Enterprise employers and 2,700 by Highlands & Enterprise employers. However, as a proportion of construction employment, Highlands and Islands take on more than their share of those new to the sector (Highlands and Islands employs 10% of those employed in construction in Scotland, yet employers in the Highlands and Islands recruited 17% of those new to the sector).

3.23 Within the Scottish Enterprise area, the LECs accounting for the greatest number of inexperienced recruits taken into the construction industry are Edinburgh & Lothian (2,550), Glasgow (1,780) and Lanarkshire (1,550).

3.24 *Figure 3.11* shows the proportion of employers taking on inexperienced recruits in each age-band by main activity at the site. Sectors have been ranked in descending order number of inexperienced recruits taken on. Other than in the last column, results show horizontal percentages and should be read across the page.

3.25 The sub sector most likely to have taken on recruits aged 16-17 is plastering/tiling (54%). In terms of actual numbers of recruits, the largest proportions are accounted for by the general building sub-sector which has taken on around 3,850 recruits over the last 3 years, roofing (c.1,900 recruits) and engineering (around 1,300 recruits). As a note, the proportion of inexperienced recruits taken on in general building and engineering sectors is lower than their share of overall construction employment (29% and 11% respectively).

FIGURE 3.11
Recruitment of inexperienced recruits by main activity and age of recruit

Horizontal %s	Unwtd Base	% of employers taking on staff in each age group					Total no. of inexperienced recruits	
		16-17	18-19	20-24	>24	Any inexperienced recruits		
All	2000	31%	14%	10%	12%	50%	16,298	(100%)
General building	261	29%	13%	13%	14%	50%	3,842	(24%)
Roofing	113	39%	22%	14%	16%	64%	1,894	(12%)
Engineering	40	28%	35%	8%	14%	57%	1,278	(8%)
Painting/Decorating	104	41%	10%	5%	6%	51%	1,102	(7%)
Electricians	88	28%	10%	6%	9%	46%	862	(5%)
Joinery/Carpentry	88	37%	11%	8%	7%	46%	741	(5%)
Flooring	40	40%	26%	20%	17%	69%	591	(4%)
Plumbing	86	29%	11%	2%	8%	42%	587	(4%)
Glazing	41	24%	17%	7%	9%	40%	552	(3%)
Plastering/Tiling	46	54%	21%	11%	8%	70%	510	(3%)
Site preparation	37	39%	29%	24%	16%	61%	494	(3%)
Plant hire/Ground work	31	19%	8%	20%	21%	49%	403	(2%)
Metalwork fabrication	25	23%	14%	13%	6%	40%	387	(2%)
Appliance fitting	45	20%	12%	11%	14%	44%	384	(2%)
Other activity	94	20%	12%	13%	14%	46%	2,671	(16%)

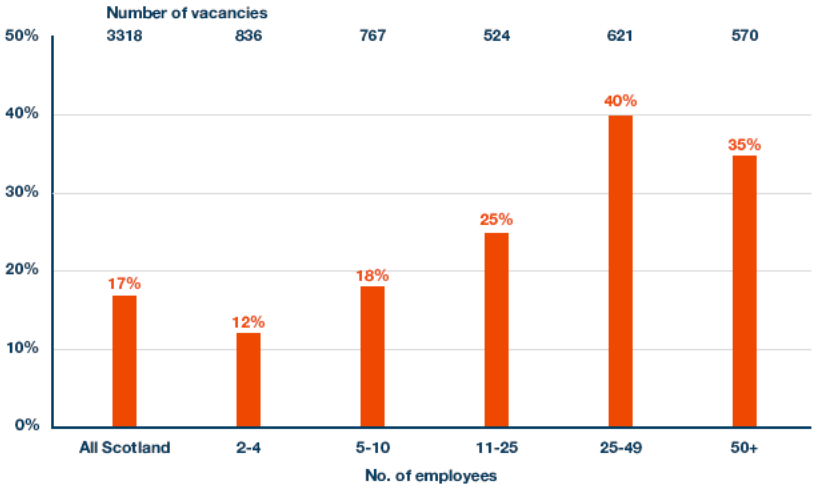
Number of vacancies experienced

3.26 All employers were asked whether they had any vacancies at the time of interview. All those who had vacancies were asked to describe the occupations that they were looking to recruit and to state how many vacancies for each occupation they had. The results of this line of questionning give a 'snapshot' picture of recruitment activity in the construction sector which can be accurately tracked over time. These results differ from those presented earlier in this chapter which look at the proportions of employers who have recruited at any stage over the course of the last year.

3.27 It is worth noting that employers were only asked about vacancies that they held for direct employees i.e. they were not asked about any difficulties that they were having recruiting subcontractors. This approach limits the chance of 'double-counting' vacancies since subcontractors were also covered by the survey.

3.28 Just under a fifth (17%) of Scottish construction establishments had at least one vacancy at the time of the interview. This is slightly lower than the national average for all industry sectors found in the Scottish Employer Skills Survey 2003 (21%) . A total of 3,300 vacancies were reported for the construction sector.

FIGURE 3.12
Proportion of construction employers with a vacancy by size

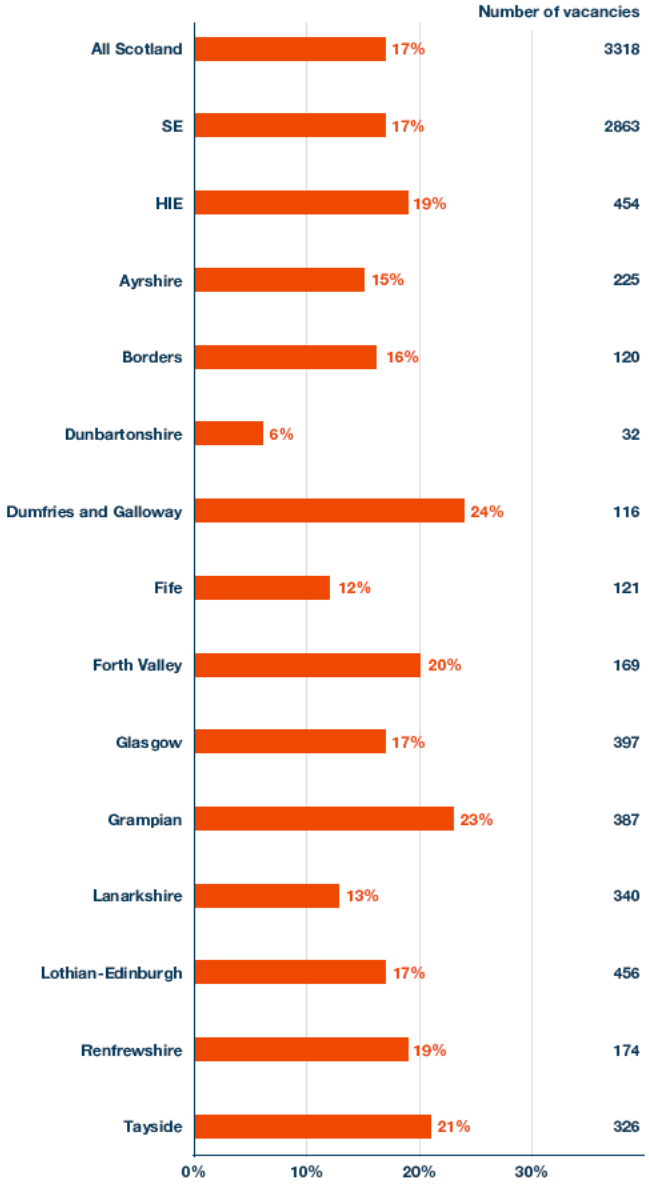


3.29 *Figure 3.12* illustrates the proportion of establishments that have at least one vacancy broken down by the size band of establishments. The figures above each bar show the total number of vacancies reported for each sizeband.

3.30 The likelihood of having any vacancy generally increases with size, from one in eight (12%) of the smallest sized establishments (2-4 employees) to over a third (35%) of those with 50 plus staff (it is highest among those with 25-49 staff).

3.31 Just over 3,300 vacancies were reported. Almost exactly half of these (48%) occurred in establishments with 10 or fewer employees. This is despite the fact that only a quarter of total employment (28%) occurs among this size of employer. This is a strong indication of buoyant current conditions for small construction employers, and potential growth opportunities for such firms.

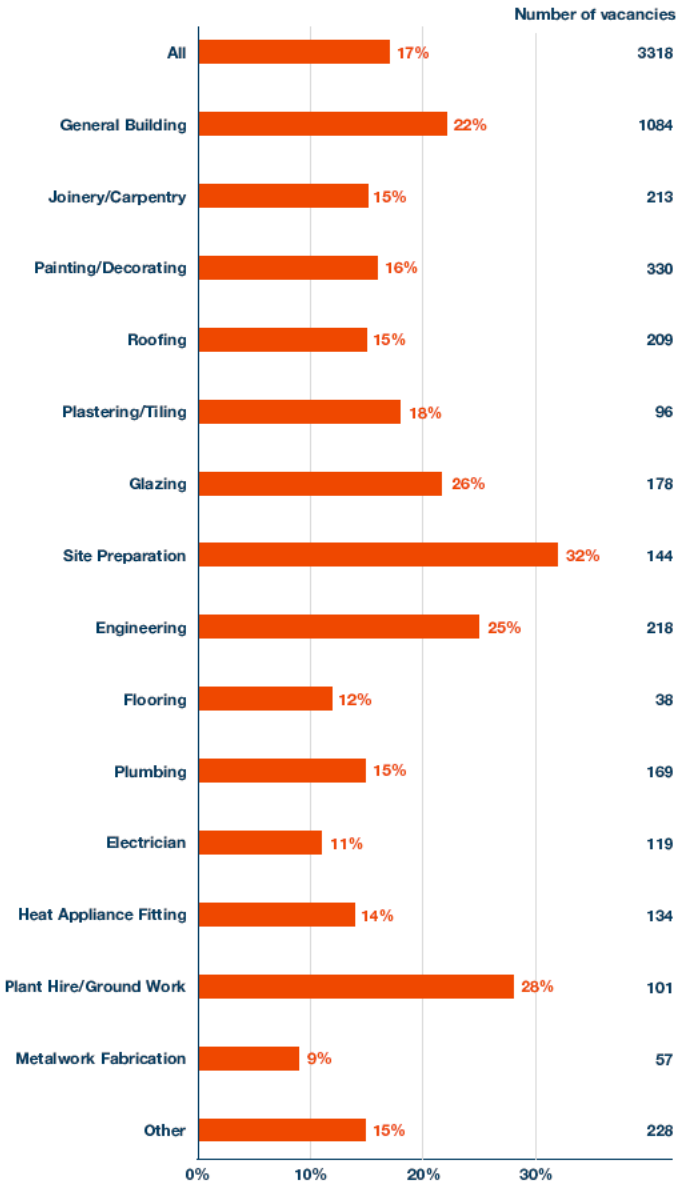
FIGURE 3.13
Proportion of employers with a vacancy by area



3.32 *Figure 3.13* shows the proportion of employers with vacancies by area. Of the 3,300 reported construction vacancies, 2,900 (87%) were reported by employers in the Scottish Enterprise area and 450 (14%) by employers in the Highlands & Islands. This means that employers in the Highlands & Islands accounted for a proportion of vacancies in line with the proportion of all construction employment that the area accounts for (10%). In terms of the Scottish LECs, employers in the Dumfries & Galloway and the Grampian regions were the most likely to report vacancies (24% and 23% respectively) while those in Dunbartonshire were the least likely to do so (6%).

3.33 Amongst the LEC areas, employers in Edinburgh & Lothian had the highest number of vacancies in terms of absolute numbers (456, representing 16% of vacancies in the Scottish Enterprise area), followed closely by Glasgow (397, 14% of the Scottish Enterprise total), Grampian (387, representing 14%) and Tayside (326, representing 11% of the Scottish Enterprise total).

FIGURE 3.14
Proportion of employers with a vacancy by activity



3.34 *Figure 3.14* illustrates the proportion of establishments within each sub-sector that reported having at least one vacancy.

3.35 There was wide variation in the likelihood of having any vacancies by sub-sector. Those most likely to have any vacancies were: establishments that carry out site preparation work (32%), and those carrying out plant hire/ground work (28%), glazing (26%), engineering (25%) and general building work (22%). It was lowest among those involved in flooring, metal working/fabrication and electricians (9% - 12%).

Density of vacancies

3.36 One way of obtaining a measure of the magnitude of the impact that vacancies are likely to be having on particular groups of employers is to express the total number of vacancies as a proportion of total employment. *Figure 3.15* shows these figures by size, area and business activity.

3.37 At the time of interview, vacancies for the sector across Scotland equated to 3% of employment. Despite the fact that smaller establishments were less likely to report vacancies than their larger counterparts, the density of vacancies was highest among employers at the smaller end of the spectrum (equating to 6.0% of employment among establishments with under 5 employees and 4.8% of employment in establishments with 5 to 10 staff).

3.38 The density of vacancies was slightly higher in the Highlands & Islands than in the Scottish Enterprise area (4.0 % compared with 2.9%). By LEC, the greatest density of vacancies was found in the Borders (5.2%).

3.39 By main activity, the greatest density of vacancies was found in establishments engaged in site preparation (6.2%) although it was also above average for joiners/carpenters (4.8%), painter/decorators (4.7%), tiler/plasterers (4.1%), gas/heating (4.0%) and plumbers (3.8%).

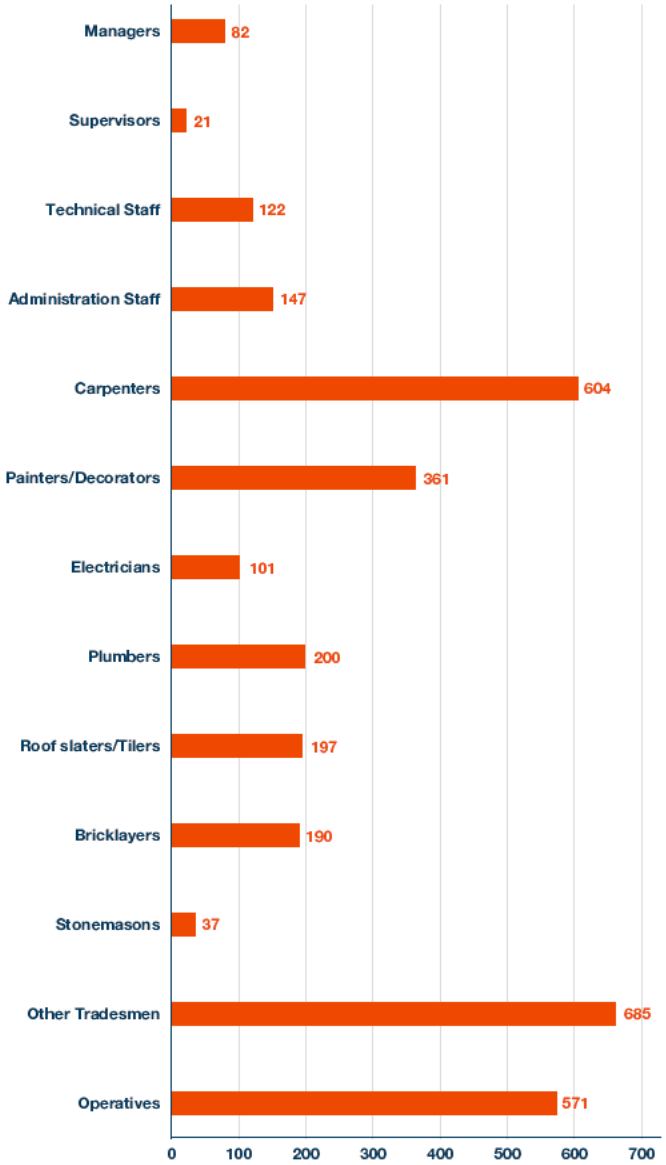
FIGURE 3.15

Density of vacancies by size, area and main business activity

	Unwt base	Wt base	Total employees	Total number vacancies	Vacancies as a % of employment
Overall	2000	9545	109540	3318	3.0%
Size					
2 to 4 employees	654	5296	13890	836	6.0%
5 to 10 employees	678	2314	16029	767	4.8%
11 to 24 employees	386	990	15631	524	3.4%
25 to 49 employees	184	519	17995	621	3.5%
50 + employees	98	426	45997	570	1.2%
Area					
Highlands & Islands Enterprise	1666	1257	11250	454	4.0%
Scottish Enterprise	334	8288	98291	2863	2.9%
Ayrshire	117	582	5739	225	3.9%
Borders	60	332	2323	120	5.2%
Dunbartonshire	73	362	3277	32	1.0%
Dumfries & Galloway	94	354	2905	116	4.0%
Fife	140	557	5342	121	2.3%
Forth Valley	108	517	6992	169	2.4%
Glasgow	126	822	13773	397	2.9%
Grampian	214	955	11095	387	3.5%
Lanarkshire	200	1110	13847	340	2.5%
Lothian & Edinburgh	286	1381	18685	456	2.4%
Renfrewshire	98	520	5905	174	2.9%
Tayside	150	796	8407	326	3.9%

	Unwt base	Wt base	Total employees	Total number vacancies	Vacancies as a % of employment
Sector					
General building	457	2088	31947	1084	3.4%
Joinery/carpentry	158	814	4427	213	4.8%
Painter/decorator	178	940	6955	330	4.7%
Roofing	162	770	7915	209	2.6%
Tiling/plastering	64	355	2349	96	4.1%
Glazing	82	369	5609	178	3.2%
Site preparation	52	228	2331	144	6.2%
Engineers	72	251	11691	218	1.9%
Flooring	55	249	3024	38	1.3%
Plumbers	157	790	4392	169	3.8%
Electricians	179	885	7187	119	1.7%
Gas/heating/installation	92	449	3349	134	4.0%
Plant hire/groundwork	67	248	2948	101	3.4%
Steel/metalwork fabrication	44	206	3592	57	1.6%
Other	181	905	11822	228	1.9%

FIGURE 3.16
Number of vacancies by occupation



Profile of vacancies

3.40 *Figure 3.16* shows the occupational profile of the vacancies reported by Scottish construction employers. Vacancies for carpenters accounted for the largest single proportion of vacancies – 600 vacancies in total – equivalent to 18% of the reported vacancies. A large number of vacancies were also accounted for by positions for operatives – 570 vacancies in total or 17% of all vacancies.

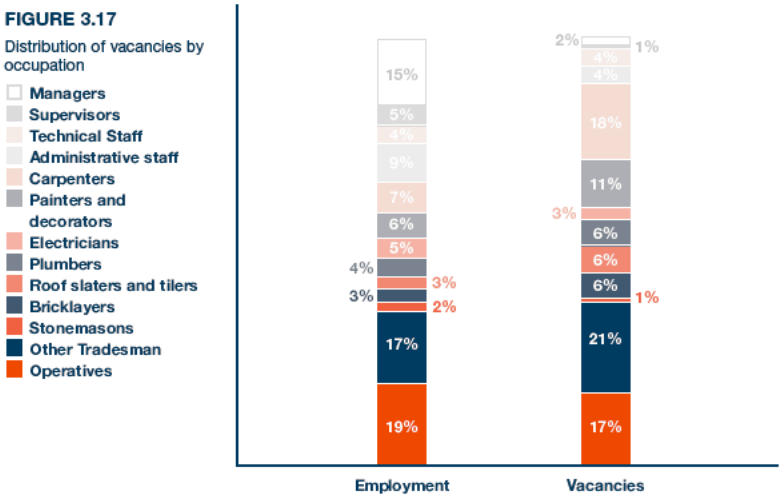
3.41 Another way to look at the breakdown of vacancies by occupation is to compare it to the occupational profile of the workforce as a whole. Employers were asked in interview to break down their staff into several occupational categories – initially into managers, supervisors, technical staff, tradesmen and operatives and then subsequently to break their tradesmen down by type of trade. Occupations in which employers stated that they had vacancies were also coded and hence comparisons can be made between the number of staff employed in each occupational category and the number of vacancies at that level. However it is worth noting that the different methods by which figures for the proportion of employees in each occupational category and the proportion of vacancies in that category are arrived at does mean that results should be treated as indicative only.

3.42 *Figure 3.17* shows the comparison between the occupational profile of the workforce and the occupational profile of vacancies. The chart is presented as two sets of columns. The left-hand column shows the proportion of the workforce employed in each occupational category and the right-hand column shows the proportion of all vacancies that were reported for each occupational category. For the purposes of this chart, tradesmen positions mentioned by only one or two employers each have been grouped together in an 'other tradesmen' category – the types of positions in this category include welders, wall and floor tilers, groundworkers, floor-layers and concrete fixers. The patterns to look out for are when the proportion of vacancies in an occupational category differs from the proportion of people employed in that category.

3.43 Looking at the right-hand column and comparing the employment profile with the vacancy profile shows that positions for managers and supervisors are under-represented, since they account for a combined total of 20% of employment and only 3% of vacancies. On the other hand, positions for carpenters/joiners and painter/decorators account for a disproportionately high number of vacancies (18% and 11% respectively compared with 7% and 6% of employment).

FIGURE 3.17

Distribution of vacancies by occupation



4.0 Hard-to-fill and Skill-shortage Vacancies

4.0 Hard-to-fill and Skill-shortage Vacancies

4.1 In this chapter we look in detail at the extent to which employers were experiencing vacancies that have been difficult to fill, and the occupations affected. We then go on to look at perceptions as to why these vacancies are proving hard-to-fill – that is whether they are a simply a result of a very small number of applicants or if the problem results from receiving applicants that are not of sufficient quality (or both).

4.2 Hard-to-fill vacancies resulting from problems with the quality of applicants are then further broken down into those that result from problems with the skills of applicants, with their qualifications, the work experience that they have had or simply their general attitudes and motivation. Vacancies resulting from any of these first few problems are termed 'skill-shortage vacancies' and the numbers of employers experiencing these vacancies are analysed and the profile of these vacancies by occupation compared with the overall employment profile.

We then go on to look at the types of skills that employers have found lacking in applicants for vacancies that have proved difficult to fill because of skills issues. Finally, having looked at the 'snap shot' picture of recruitment difficulties, we also look at the proportions of employers who have experienced hard-to-fill vacancies over the course of the last 6 months.

Proportions of employers experiencing hard-to-fill vacancies

4.3 *Figure 4.1* shows the proportion of employers experiencing hard-to-fill vacancies overall and by size band at the time of interview. The proportion of employers who had vacancies is shown for comparison. The total number of vacancies that were proving hard-to-fill and this number as a percentage of all reported vacancies is also shown (giving an indication of the density of hard-to-fill vacancies).

FIGURE 4.1
Proportion of employers with hard-to-fill vacancies by size band

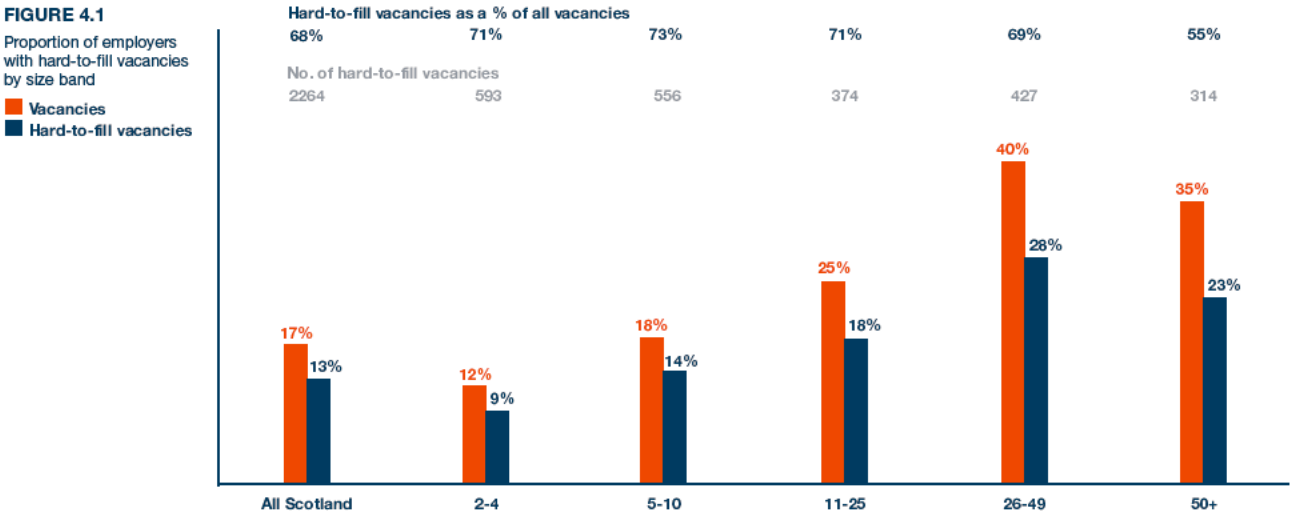
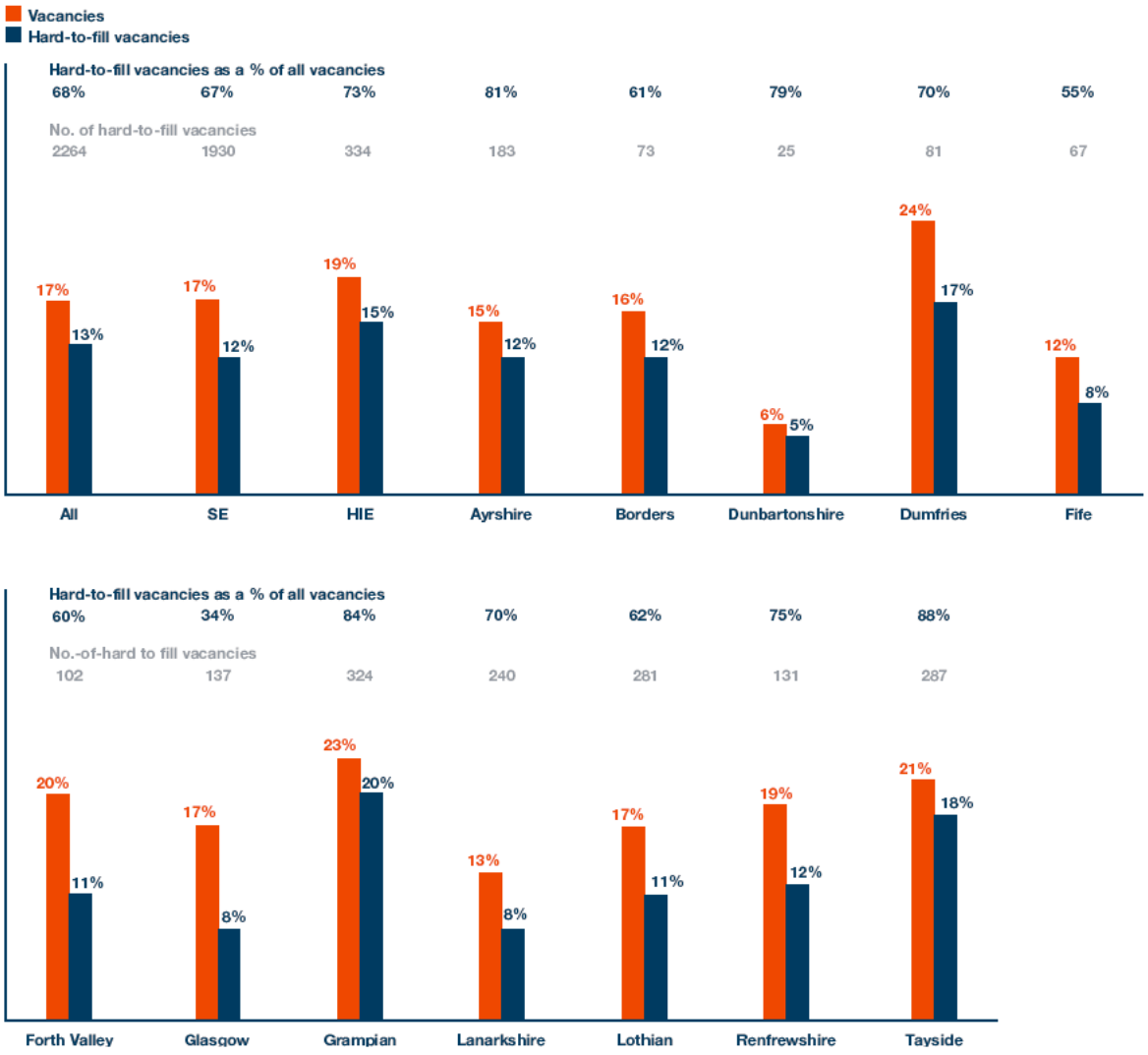


FIGURE 4.2

Proportion of employers with hard-to-fill vacancies by area



4.4 Around one in eight Scottish construction establishments had a hard-to-fill vacancy at the time of interview (13%). The numbers of hard-to-fill vacancies reported suggest that there are about 2,300 hard-to-fill vacancies in the construction sector across Scotland. This means that about 68% of all current vacancies were proving difficult to fill. This is quite a high proportion – by comparison the Scottish Employer Skills Survey 2003 (SESS2003) which covered all sectors found that 50% of all vacancies were described by employers as hard-to-fill.

4.5 The proportion of employers experiencing a hard-to-fill vacancy increases with size of establishment from one in eleven (9%) of the smallest establishments (those with fewer than 5 employees) to a quarter of those with in excess of 50 employees (23%). There is actually a slight irregularity in this pattern in that those with between 25 and 49 employees were slightly more likely to have a hard-to-fill vacancy than those with more than 50 employees. This simply reflects the fact that they are more likely to report vacancies.

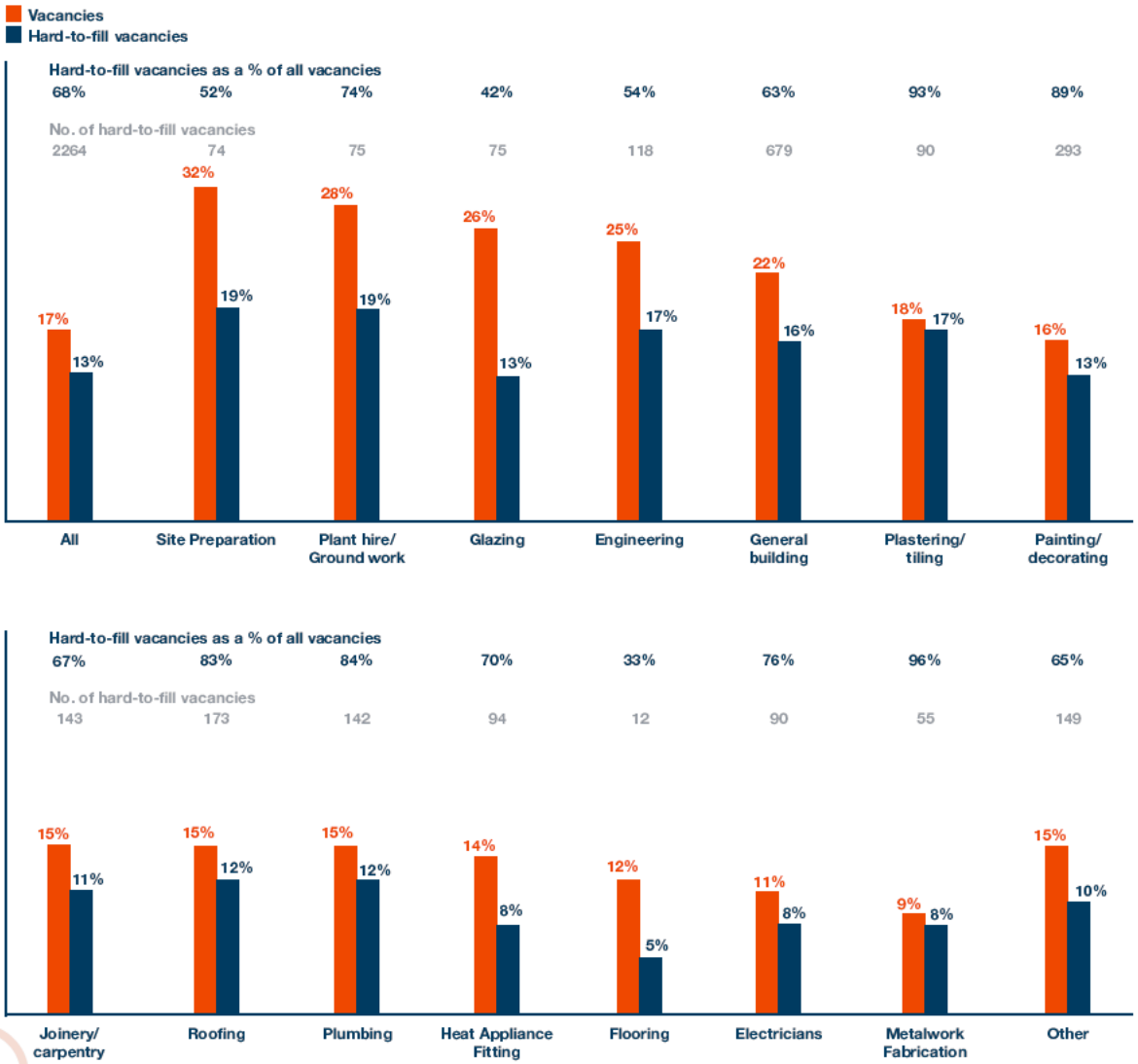
4.6 However examination of the actual numbers of hard-to-fill vacancies shows that they are relatively evenly distributed between the different size-bands of establishments. Around 600 hard-to-fill vacancies are found in establishments with fewer than 5 employees, 550 with those with between 5 and 10 employees, around 400 in each of the 11-25 and 35-49 size categories and around 300 in establishments with more than 50 employees. This 'equalling out' of hard-to-fill vacancies in terms of actual numbers (compared to the proportion of employers experiencing hard-to-fill vacancies) is a function of the smaller numbers of establishments that fall in the larger size bands.

4.7 The proportion of vacancies that are hard-to-fill is higher among establishments with 2-49 staff (c. 70%) than among their larger counterparts (where the level drops to 55%.

4.8 *Figure 4.2* looks at the same information by Enterprise and LEC area. A total of just over 1,900 hard-to-fill vacancies were reported for the Scottish Enterprise area and just over 300 for the Highlands & Islands area. The proportion of vacancies that were proving hard-to-fill was slightly higher in the Highlands & Islands (73%) than in the Scottish Enterprise area (67%).

FIGURE 4.3

Proportion of employers with hard-to-fill vacancies by activity



4.9 The proportions of employers experiencing hard-to-fill vacancies are highest in the Grampian region (20%), Tayside (18%) and Dumfries and Galloway (17%). Tayside and Grampian (along with Ayrshire) employers also experience the highest density of hard-to-fill vacancies with over four in five vacancies in these areas proving difficult to fill. In terms of LEC area, the lowest density of recruitment difficulties is found in Glasgow where only a third of reported vacancies were proving hard-to-fill.

4.10 Again using the same charting format, *Figure 4.3* looks at hard-to-fill vacancies by main business activity. By volume (and reflecting the proportion of all construction businesses that they account for), the highest numbers of vacancies are found among establishments categorising their main business activity as 'general building' – this sub-sector accounts for nearly 700 of the 2,300 hard-to-fill vacancies across Scotland. Relatively high proportions are also accounted for by the painting/decorating sub-sector (around 300) and the roofing sector (just under 200).

4.11 The sub-sectors that seem to have the most difficulty recruiting – in terms of the proportion of their vacancies that turn out to be hard-to-fill – are the steel/metalwork/fabrication establishments and the plastering/tiling establishments. In both of these sectors nearly all vacancies were proving hard-to-fill (96% and 93% respectively). By comparison, glazing establishments and flooring establishments have fewer recruitment problems with 42% and 33% respectively of vacancies proving hard-to-fill.

Density of hard-to-fill vacancies

4.12 *Figure 4.4* shows the density of hard-to-fill vacancies by size, area and main activity at the establishment. The density figures are calculated by expressing the number of hard-to-fill vacancies as a proportion of all employment.

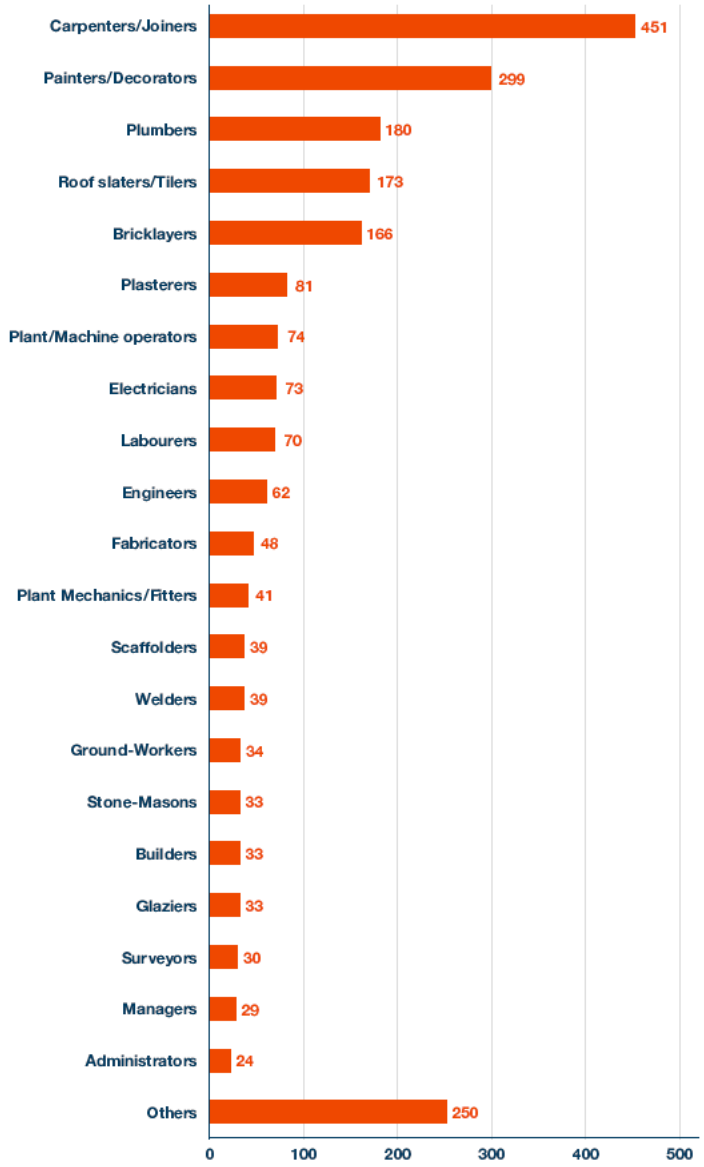
FIGURE 4.4

Density of hard-to-fill vacancies by size, area and main activity

	Unwt base	Wt base	Total employees	Total number hard-to-fill vacancies	Density of hard-to-fill vacancies
Overall	2000	9545	109540	2264	2.1%
Size					
2 to 4 employees	654	5296	13890	593	4.3%
5 to 10 employees	678	2314	16029	556	3.5%
11 to 24 employees	386	990	15631	374	2.4%
25 to 49 employees	184	519	17995	427	2.4%
50 + employees	98	426	45997	314	0.7%
Area					
Highlands & Islands Enterprise	1666	1257	11250	334	3.0%
Scottish Enterprise	334	8288	98291	1930	2.0%
Ayrshire	117	582	5739	183	3.2%
Borders	60	332	2323	73	3.1%
Dunbartonshire	73	362	3277	25	0.8%
Dumfries & Galloway	94	354	2905	81	2.8%
Fife	140	557	5342	67	1.3%
Forth Valley	108	517	6992	102	1.5%
Glasgow	126	822	13773	137	1.0%
Grampian	214	955	11095	324	2.9%
Lanarkshire	200	1110	13847	240	1.7%
Lothian & Edinburgh	286	1381	18685	281	1.5%
Renfrewshire	98	520	5905	131	2.2%
Tayside	150	796	8407	287	3.4%

	Unwt base	Wt base	Total employees	Total number hard-to-fill vacancies	Density of hard-to-fill vacancies
Sector					
General building	457	2088	31947	679	2.1%
Joinery/carpentry	158	814	4427	143	3.2%
Painter/decorator	178	940	6955	293	4.2%
Roofing	162	770	7915	173	2.2%
Tiling/plastering	64	355	2349	90	3.8%
Glazing	82	369	5609	75	1.3%
Site preparation	52	228	2331	74	3.2%
Engineers	72	251	11691	118	1.0%
Flooring	55	249	3024	12	0.4%
Plumbers	157	790	4392	142	3.2%
Electricians	179	885	7187	90	1.3%
Gas/heating/installation	92	449	3349	94	2.8%
Plant hire/groundwork	67	248	2948	75	2.5%
Steel/metalwork fabrication	44	206	3592	55	1.5%
Other	181	905	11822	149	1.3%

FIGURE 4.5
Numbers of hard-to-fill vacancies by occupation



4.13 Hard-to-fill vacancies for the construction sector in Scotland equate to 2.1% of all employment. As with vacancies, the density of hard-to-fill vacancies is greatest among the smallest employers with those with between 2 and 4 staff experiencing a hard-to-fill density of 4.3%. By LEC, the highest densities are found in Tayside, Ayrshire and the Borders region.

4.14 By main activity, the density of vacancies was highest among those engaged in site preparation work. While the density of hard-to-fill vacancies is also above average in this sub-sector, it does not stand out above other sectors to quite the same extent. The greatest density of hard-to-fill vacancies is experienced by those working as painter-decorators.

Occupational profile of hard-to-fill vacancies

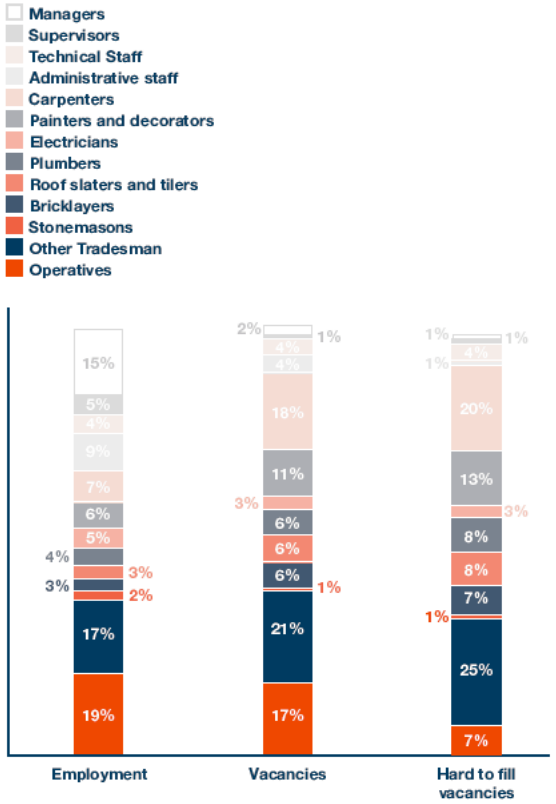
4.15 *Figure 4.5* shows how the hard-to-fill vacancies experienced by construction employers break down by the occupation that they are looking to recruit. Following a similar pattern to that shown in the previous chapter for vacancies, the largest proportion of hard-to-fill vacancies are for carpenters – these account for 450 of the 2,300 hard-to-fill construction vacancies in Scotland. Hard-to-fill vacancies for painter/decorators also account for a comparatively large proportion (c. 300 vacancies), followed by hard-to-fill vacancies for plumbers (180), roofers/tilers (173) and bricklayers (166). All other individual occupations each account for fewer than 4% of hard-to-fill vacancies.

4.16 *Figure 4.6* looks at the information collected about the occupations in which construction employers had hard-to-fill vacancies in the same way as we looked at vacancies in the previous section. The right hand bar shows the breakdown of hard-to-fill vacancies by occupation with the profile of vacancies and employees for comparison. Again the patterns to look out for are when the proportion of hard-to-fill vacancies in an occupational category differs from the proportion of people employed in that category (the left hand column).

4.17 Comparing the occupational profile of vacancies and hard-to-fill vacancies shows that they are relatively similar. This would tend to indicate that all vacancies independent of occupation are equally difficult to fill. Hence even though hard-to-fill vacancies for carpenters/joiners account for quite a large proportion of hard-to-fill vacancies (20%), this is in line with the proportion of all vacant positions that they account for. This implies that it is not because carpenters/joiners are particularly difficult to recruit that they are over-represented among hard-to-fill vacancies (when compared to their proportion of employment) but simply that a lot of employers are trying to recruit for these positions. However looking at tradesmen as a whole (from carpenters through to 'other tradesmen') shows that as a whole group they are over-represented among hard-to-fill vacancies relative to the proportion of vacancies that they represent.

4.18 Operatives on the other hand are comparatively 'under-represented' among hard-to-fill vacancies – they account for 17% of all vacancies but only 7% of hard-to-fill vacancies. This indicates that employers do not have as many difficulties filling these positions as they do recruiting tradesmen.

FIGURE 4.6
Distribution of hard-to-fill vacancies by occupation

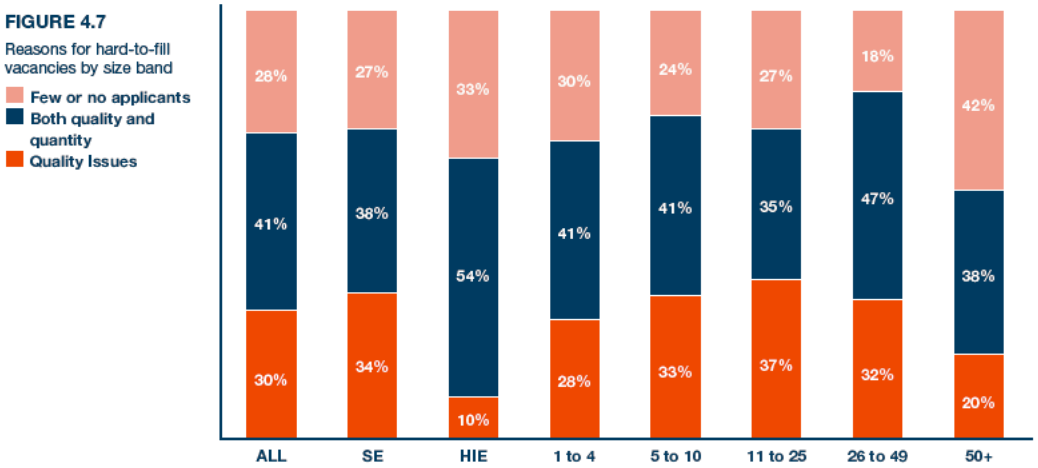


Causes of hard-to-fill vacancies

4.19 For each occupation in which they were experiencing hard-to-fill vacancies, employers were asked whether these vacancies were proving difficult to fill because they had had few or no applicants, because the applicants that they had received did not meet the establishment's quality requirements or for both of these reasons.

Figure 4.7 shows the proportion of hard-to-fill vacancies falling into each of these three groups at overall level, by sizeband and by Enterprise area. This chart is based on all hard-to-fill vacancies experienced by Scottish construction employers.

FIGURE 4.7
Reasons for hard-to-fill vacancies by size band



4.20 At an overall level, nearly three-quarters of hard-to-fill vacancies are attributed to quality issues to at least some extent (71%), with just under a third (30%) considered a result purely of quality issues. The remaining quarter of vacancies (28%) are seen to result simply from a sheer lack of applicants for the vacancy. The situation for hard-to-fill vacancies in the Scottish Enterprise area conforms very much to the national average for construction firms. In the Highlands & Islands region, however, the proportion of vacancies that are a result purely of quality issues is much lower (10% compared to an average of 30%). This means that a lack of applicants plays a part to at least some degree in nearly all vacancies in the Highlands & Islands (though often it is both a lack of applicants and a lack of quality).

4.21 There is not a clear pattern in the variation in reasons given for hard-to-fill vacancies by size of establishment. The largest establishments (those with more than 50 employees) have the largest proportion of vacancies that result purely from a lack of applicants (42% compared with 28% on average). In part this will be a function of the volume of people that they are looking to recruit. Only a fifth of hard-to-fill vacancies in the largest establishments were attributed purely to issues of applicant quality. This could mean either that the larger establishments are more successful in attracting quality candidates and/or perhaps that they do not have as high 'quality thresholds' for vacancies (maybe because they are more able and willing to train new recruits up to their required quality standards).

4.22 Where employers stated that vacancies resulted either purely from quality issues or from a combination of quality and quantity issues, they were asked to specify in what way quality had been lacking in the applicants that they had attracted. They were asked whether applicants had lacked the skills that they required, the qualifications that they required, the work experience that they needed or whether applicants had simply had unsuitable attitudes, motivation or personalities.

FIGURE 4.8

Type of quality problems among applicants (by area)

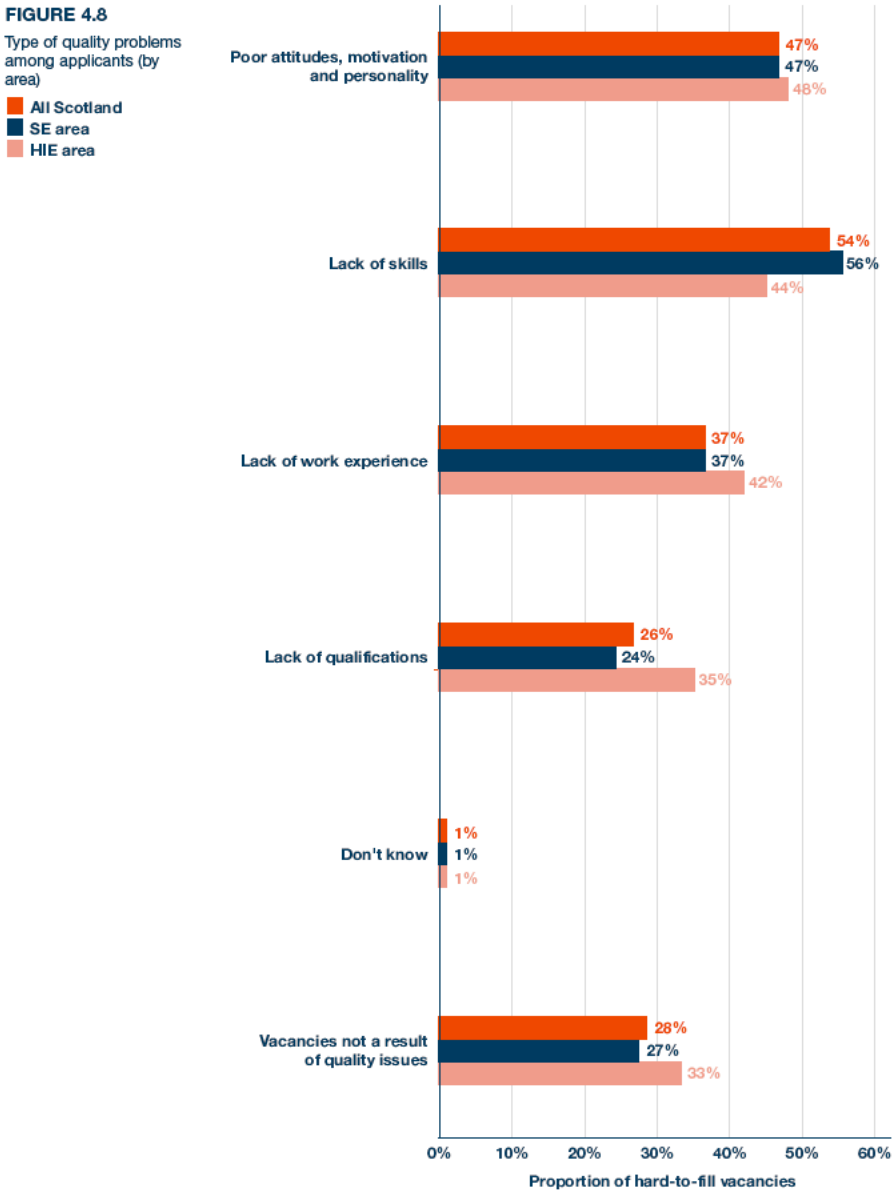
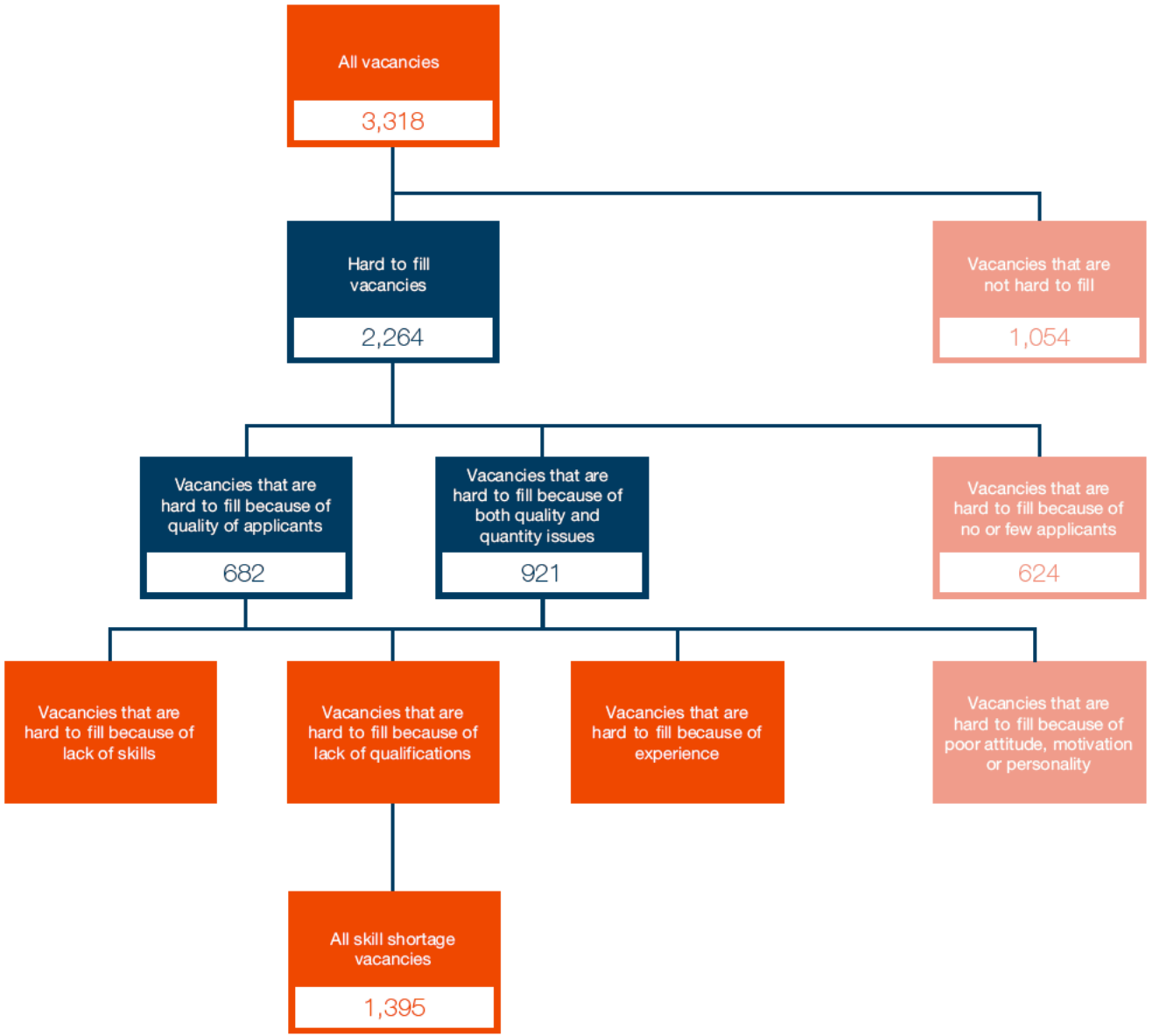


Figure 4.8 shows the outcomes of this line of questioning again using a hard-to-fill vacancy base. That is figures are expressed as a proportion of all vacancies that are proving difficult to fill (the proportion that are a result simply of quantity issues is also shown at the bottom of the chart). The figure shows findings at an overall level and then split by the Scottish Enterprise and Highlands and Islands Enterprise areas.

4.23 Half of hard-to-fill vacancies (54%) were seen to be a result of issues relating to the skills sets of applicants, just over a third as a result of the work experience that applicants had had and a quarter as a result of the qualifications held by applicants. More than one of these issues was raised in relation to a considerable proportion of these vacancies. Just under half of vacancies were attributed in part to poor attitudes, levels of motivation or personality issues among applicants. Construction employers were more likely to attribute the hard-to-fill vacancies that they experienced to the skills, work experience and qualifications of applicants than was the case for employers across the whole Scottish economy in the SESS2003 study (the corresponding figures for Scotland as a whole were 33%, 24% and 9%). The difference in the figures for the proportion of vacancies that are hard-to-fill because of issues around qualifications of applicants is particularly marked indicating that the construction sector perhaps has stricter qualification requirements than other sectors, or at least qualifications play a greater part in construction recruitment than in other sectors.

4.24 One general finding is that a lack of skills among applicants appears to be more of a factor for employers in the Scottish Enterprise area than in The Highlands & Islands Enterprise area, whereas the reverse is true for applicants lacking qualifications.

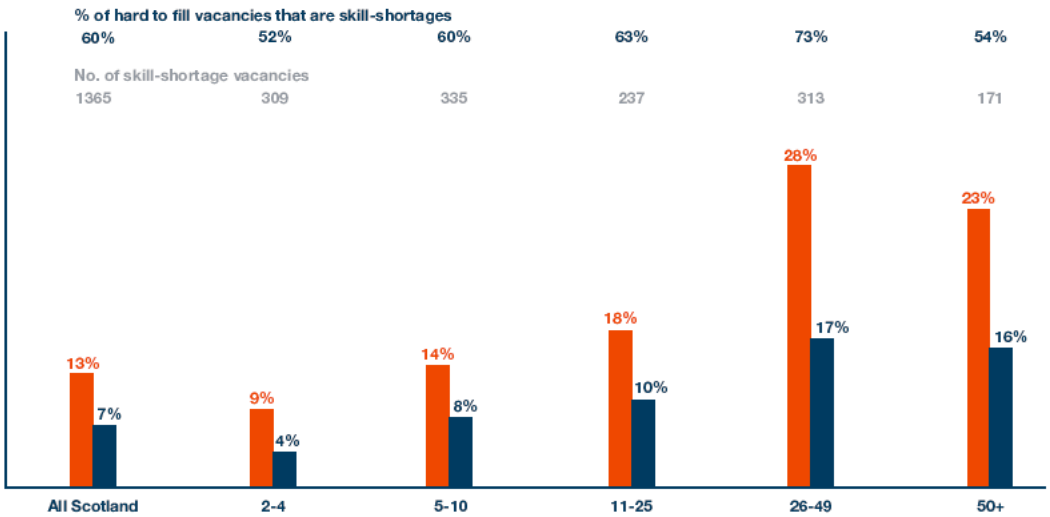
FIGURE 4.9
Definition of skill-shortage vacancies



Skill-shortage vacancies

4.25 Hard-to-fill vacancies that result from a lack of skills, qualifications or work experience among applicants are termed 'skill-shortage vacancies'. Construction employers reported a total of just under 1,400 skill-shortage vacancies. *Figure 4.9* shows how skill-shortage vacancies are defined as a sub-set of all vacancies in the form of a flow diagram.

FIGURE 4.10
Proportion of employers with hard-to-fill and skill-shortage vacancies by size

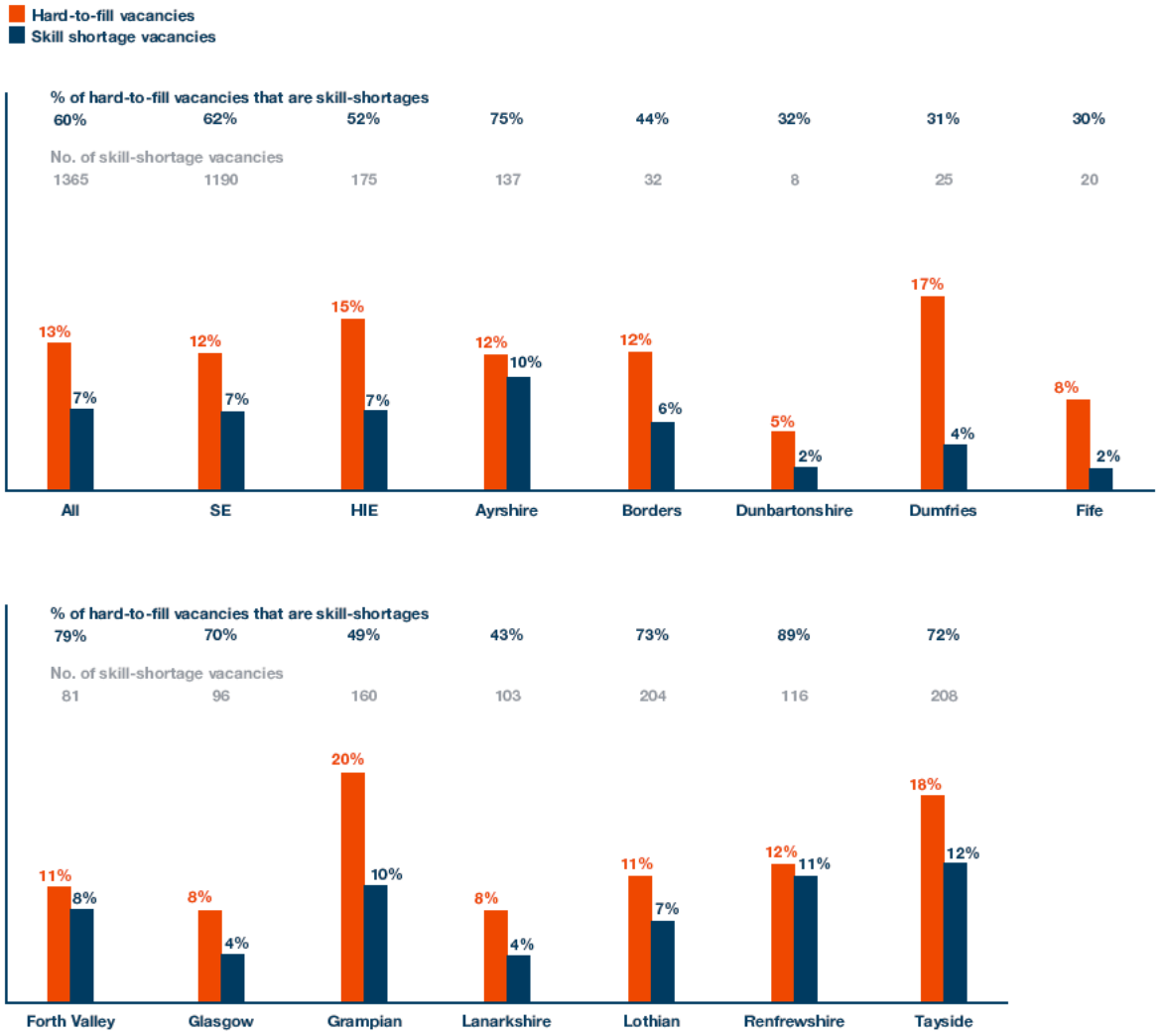


4.26 A total of 7% of construction employers reported skill-shortage vacancies. These vacancies account for three in five of all hard-to-fill vacancies (60%). *Figure 4.10* shows the proportion of all employers experiencing skill-shortage vacancies by size of establishment. The proportions who had any hard-to-fill vacancies at the time of interview are also shown for comparison.

4.27 The proportion of employers with skill-shortage vacancies increases with size of establishment in much in the same way as the proportion with any hard-to-fill vacancies. The proportion experiencing skill-shortage vacancies increases from 4% of the smallest establishments (with between 2 and 4 employees) and 16%-17% of those at the larger end of the spectrum (with 25 or more employees). Medium-sized companies with between 25 and 49 employees were particularly likely to consider that their hard-to-fill vacancies were a result of skills issues – 73% of all hard-to-fill vacancies in this size bracket were attributed to skills, qualifications and/or work experience shortages among applicants.

FIGURE 4.11

Proportion of employers with hard-to-fill and skill-shortage vacancies by area



4.28 *Figure 4.11* shows the same analysis by geography – comparing the picture for all Scottish construction employers with those for each of the 2 Enterprise areas and the individual LECs in the Scottish Enterprise area.

4.29 The total number of skill-shortage vacancies among Scottish construction employers as a whole - around 1,400 in total – comprise just under 1,200 in the Scottish Enterprise area and just under 200 in the Highlands and Islands area. Reflecting the fact that Highlands and Islands employers were more likely to feel that their hard-to-fill vacancies resulted purely from a lack of applicants, the proportion of hard-to-fill vacancies that are skill-shortage vacancies is noticeably lower for the Highlands and Islands (52% compared with 62% for the Scottish Enterprise area).

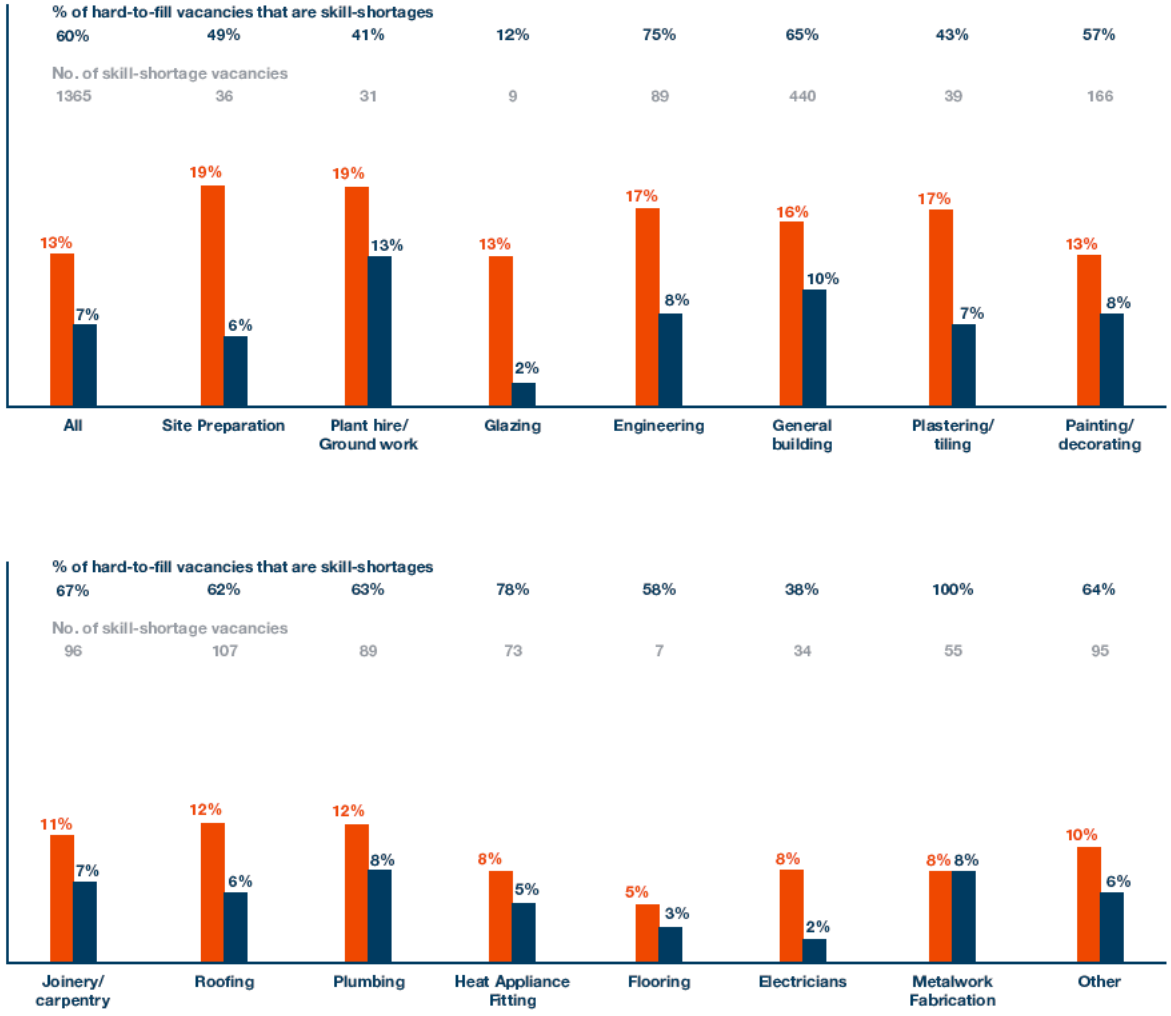
4.30 By LEC, the highest proportion of employers with skill-shortage vacancies are found in Tayside (12%), Renfrewshire (11%), Grampian (10%) and Ayrshire (10%). The LECs suffering least from external skill-shortages are Dunbartonshire (2%) and Fife (2%). In terms of the density of skill-shortage vacancies, the hardest hit are Renfrewshire (where 89% of hard-to-fill vacancies are a result of skill issues) and Forth Valley (79%).

4.31 *Figure 4.12* shows the proportions of employers experiencing skill-shortage vacancies by main activity at the establishment. This analysis shows that employers working in the field of plant hire/groundwork were the most likely to have skill-shortage vacancies (13%) while electricians and glazing specialists were the least likely (2%). Reflecting the numbers of hard-to-fill vacancies shown earlier in this chapter – the largest numbers of skill-shortage vacancies are found among construction employers in the fields of general building (440 vacancies), painting/decorating (170) and roofing (110).

FIGURE 4.12

Proportion of employers with hard-to-fill and skill-shortage vacancies by activity

Hard-to-fill vacancies
Skill shortage vacancies



Density of skill-shortage vacancies

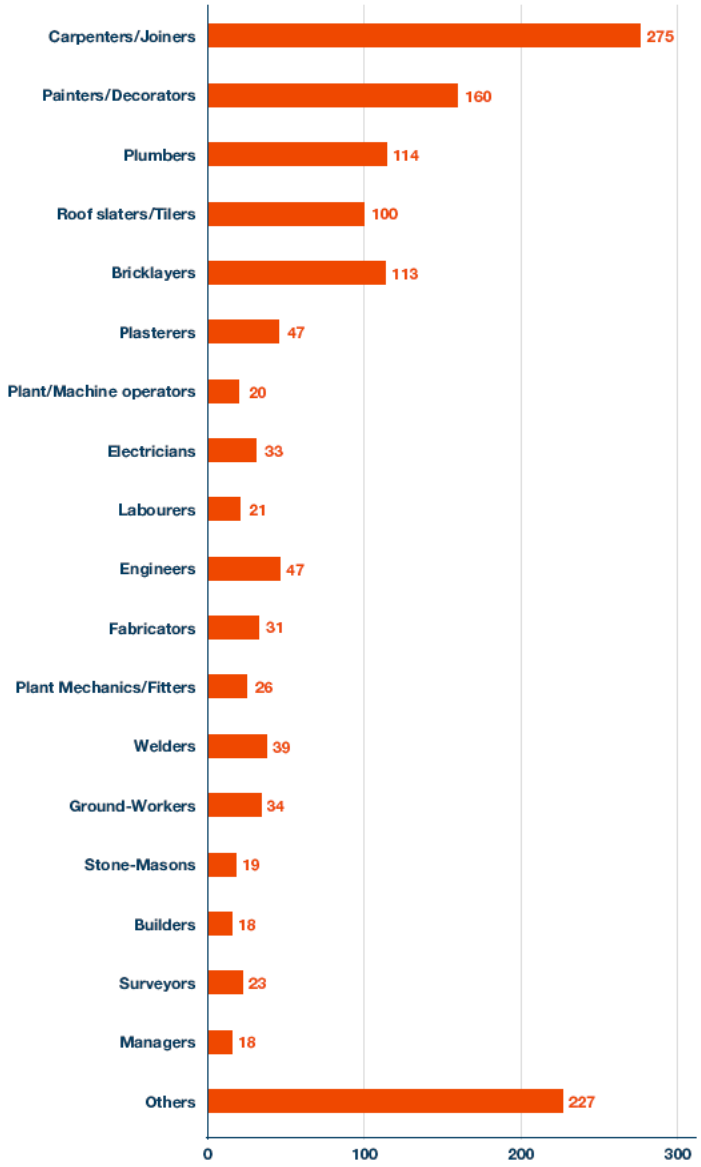
4.32 *Figure 4.13* shows skill-shortage vacancies expressed as a proportion of employment by size, area and main activity at establishment.

4.33 At an overall level skill-shortage vacancies equate to 1.2% of employment in the Scottish construction sector. As with both vacancies and hard-to-fill vacancies, the highest density of skill-shortage vacancies is found among the very smallest employers (2.2% among establishments with between 2 and 4 employees).

FIGURE 4.13
Density of skill-shortage vacancies by size, area and activity

	Unwt base	Wt base	Total employees	Total no of skill-shortage vacancies	Skill-shortages as a % of employment
Overall	2000	9545	109540	1365	1.2%
Size					
2 to 4 employees	654	5296	13890	309	2.2%
5 to 10 employees	678	2314	16029	335	2.1%
11 to 24 employees	386	990	15631	237	1.5%
25 to 49 employees	184	519	17995	313	1.7%
50 + employees	98	426	45997	171	0.4%
Area					
Highlands & Islands Enterprise	1666	1257	11250	175	1.6%
Scottish Enterprise	334	8288	98291	1190	1.2%
Ayrshire	117	582	5739	137	2.4%
Borders	60	332	2323	32	1.4%
Dunbartonshire	73	362	3277	8	0.2%
Dumfries & Galloway	94	354	2905	25	0.9%
Fife	140	557	5342	20	0.4%
Forth Valley	108	517	6992	81	1.2%
Glasgow	126	822	13773	96	0.7%
Grampian	214	955	11095	160	1.4%
Lanarkshire	200	1110	13847	103	0.7%
Lothian & Edinburgh	286	1381	18685	204	1.1%
Renfrewshire	98	520	5905	116	2.0%
Tayside	150	796	8407	208	2.5%
Sector					
General building	457	2088	31947	440	1.4%
Joinery/carpentry	158	814	4427	96	2.2%
Painter/decorator	178	940	6955	166	2.4%
Roofing	162	770	7915	107	1.4%
Tiling/plastering	64	355	2349	39	1.7%
Glazing	82	369	5609	9	0.2%
Site preparation	52	228	2331	36	1.5%
Engineers	72	251	11691	89	0.8%
Flooring	55	249	3024	7	0.2%
Plumbers	157	790	4392	89	2.0%
Electricians	179	885	7187	34	0.5%
Gas/heating/installation	92	449	3349	73	2.2%
Plant hire/groundwork	67	248	2948	31	1.1%
Steel/metalwork fabrication	44	206	3592	55	1.5%
Other	181	905	11822	95	0.8%

FIGURE 4.14
Numbers of skill-shortage vacancies by occupational category



4.34 The LECs that were experiencing the highest density of skill-shortage vacancies at the time of interview were Ayrshire, Renfrewshire and Tayside (2.4%, 2.0% and 2.5% respectively). In terms of activity, it was joiner/carpenters, painter/decorators and those engaged in gas/heating/installation who experienced the highest skill-shortage vacancy densities (2.2%, 2.4% and 2.2% respectively).

Occupational profile of skill-shortage vacancies

4.35 *Figure 4.14* shows the actual numbers of skill-shortage vacancies by broad occupational group. The relative number of skill-shortage vacancies for each job category broadly follows the same pattern as that for all hard-to-fill vacancies shown earlier in this chapter. The largest number of skill-shortage vacancies are found among carpenters/joiners (around 275 vacancies), with comparatively large numbers also found for painter/decorators (160), plumbers (114), bricklayers (113) and roofers/tilers (100).

4.36 Comparing the occupational profile of skill-shortage vacancies with that for hard-to-fill vacancies shows considerably similarity (*Figure 4.15*). This implies that whatever the occupation of hard-to-fill vacancies, there is a roughly equal chance it will be caused by a lack of skills. Hence, because vacancies for tradesmen are 'over-represented' among hard-to-fill vacancies at an overall level (relative to the proportion of employment that they account for), they are also over-represented among skill-shortage vacancies relative to employment (though not compared to the proportion of hard-to-fill vacancies that they represent). Tradesmen account for 54% of all employment in the Scottish construction sector but 72% of all vacancies, 85% of all hard-to-fill vacancies and 86% of all skill-shortage vacancies. Conversely, positions for operatives account for 19% of all employment, a proportional amount of all vacancies (17%) but only 7% of hard-to-fill vacancies and only 3% of skill-shortage vacancies.

Skills lacking among skill-shortage vacancies

4.37 Those employers reporting that the vacancies that they were finding difficult to fill were a result of a lack of skills among the applicants that they had attracted were asked which specific skills applicants had lacked.

Results here are prompted in that the potential list of skills lacking was read out to respondents. *Figure 4.16* shows the proportion of skill-shortage vacancies attributed to a lack of each type of skill. It should be noted that employers could mention more than one skill in connection with each vacancy (and hence percentages add to more than 100%).

4.38 Perhaps unsurprisingly (since the vast majority of skill-shortage vacancies were for tradesmen), the skills most likely to be seen as lacking in applicants for these positions were craft-specific skills. Nearly all (90%) of vacancies were felt to be a result of a lack of these trade specific skills. This does indicate that the recruitment problems that are being experienced are considered to be the result of a lack of craftsmen with the necessary hard technical skills in the market-place rather than being a result of applicants lacking 'soft/generic' skills (such as communication or customer handling). That said, more than one skill deficiency was mentioned in connection with two-thirds of vacancies (64%) and the 'other skills' most likely to be mentioned were problem solving skills (mentioned in connection with two-fifths of skill-shortage vacancies), communication skills and health & safety skills / knowledge (each mentioned in connection with a third of vacancies).

FIGURE 4.15
Profile of skill-shortage vacancies by occupation

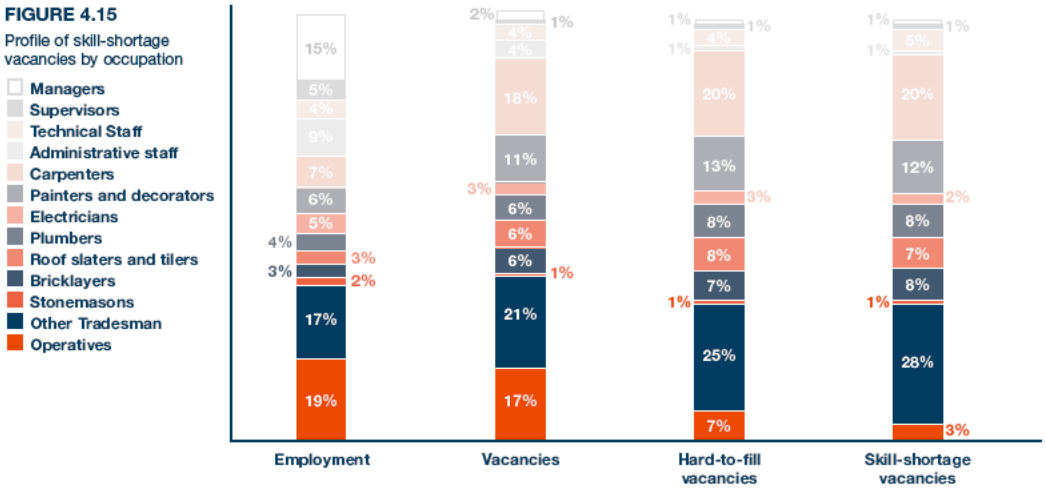
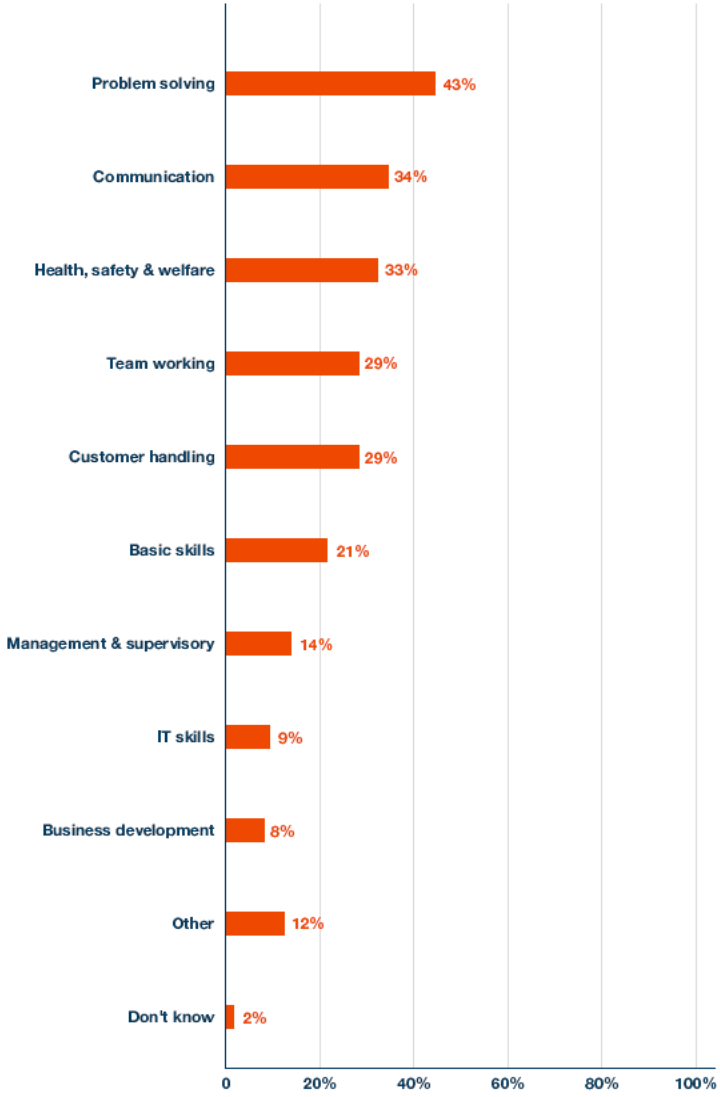
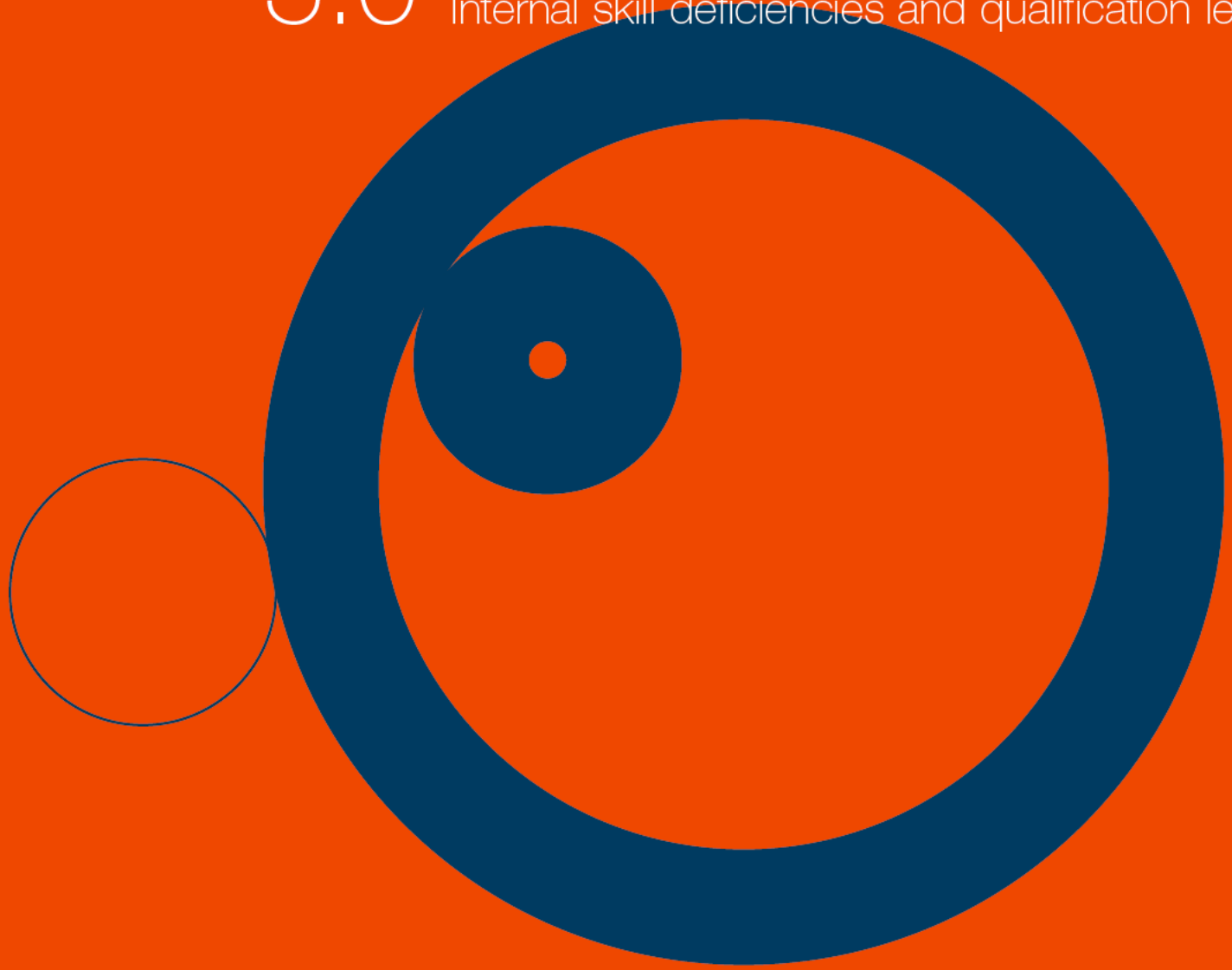


FIGURE 4.16
Skills lacking for skill-shortage vacancies



5.0 Internal skill deficiencies and qualification levels



5.0 Internal skill deficiencies and qualification levels

5.1 Having looked at the skill gaps of applicants for vacancies in Chapter 4 we turn now to skill gaps which exist among the existing workforce. We examine the frequency with which these internal skill gaps occur and where they tend to occur (i.e. in what size companies and in what sectors), what skills are lacking, what the implications are for businesses, and what action employers take to overcome them. The second part of the chapter looks at the extent to which employees in different occupational categories have qualifications relevant to their specific job role. Before going on to look at issues relating to the skills of the existing construction workforce, we look briefly at the occupational profile of the sector.

FIGURE 5.1
Breakdown of staff into 6 major categories

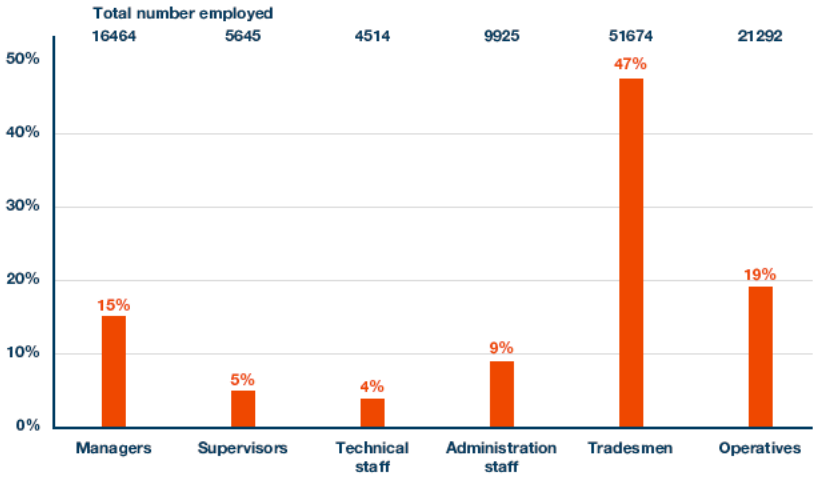
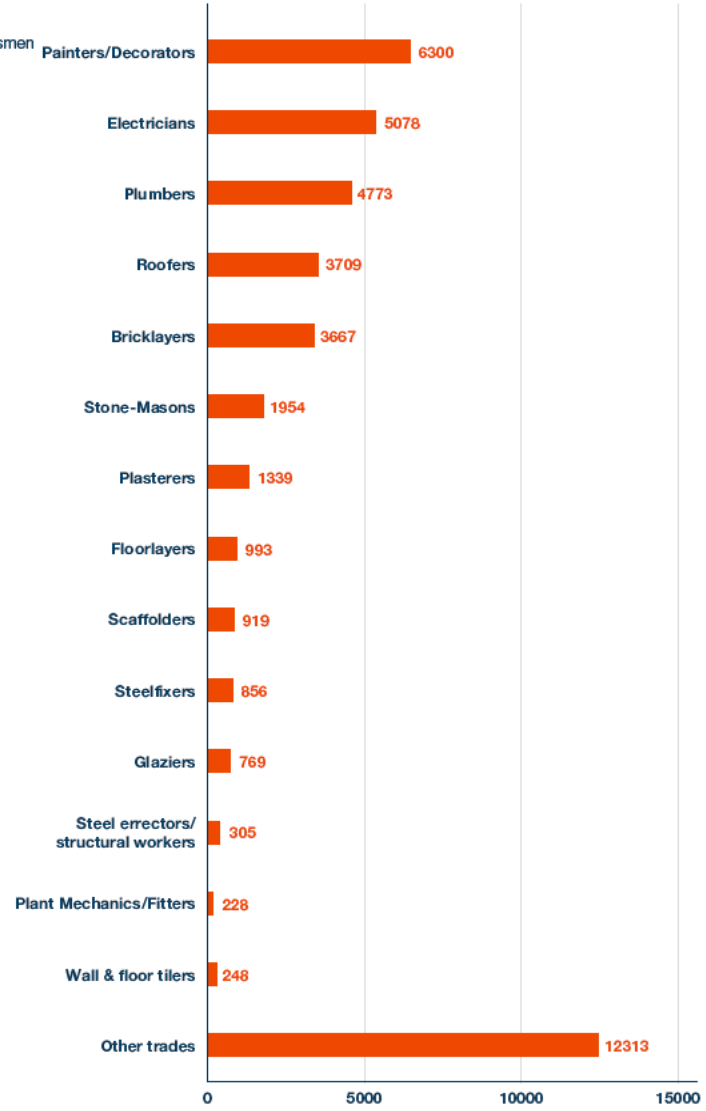


FIGURE 5.2
Breakdown of tradesmen into specific crafts

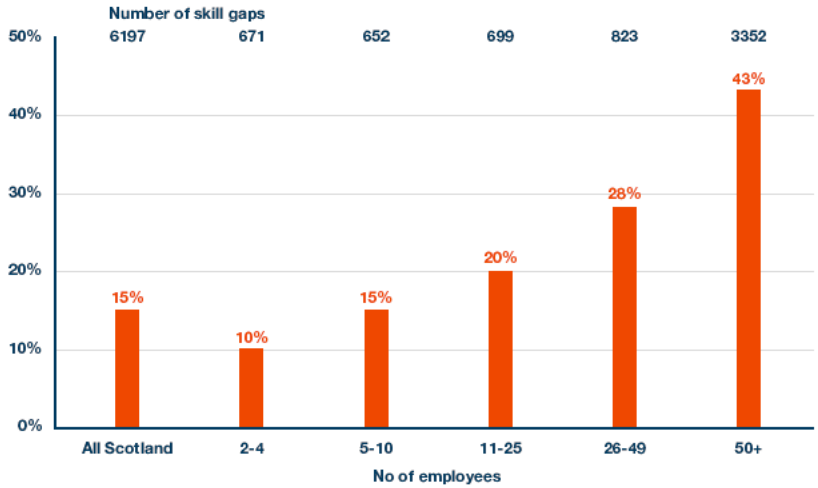


Occupational profile of construction employees

5.2 Respondents were asked to breakdown their workforce into 6 broad categories -– managers, supervisors, technical staff, administrative staff, tradesmen and operatives. After completing this break down, they were asked to further breakdown the tradesmen that they employed into the specific trades within which they worked. *Figure 5.1* shows the first level breakdown of staff and *Figure 5.2* shows the breakdown of tradesmen into specific crafts (showing separate categories for those trades accounting for at least 0.5% of tradesmen).

5.3 Just over under of employees in the construction sector are employed as skilled tradesmen (47%). Of those employed as tradesmen, the largest proportions are engaged as carpenters (18% of all tradesmen), painter-decorators (12%), electricians (10%) and plumbers (9%).

FIGURE 5.3
Proportion of employers who have skill gaps by size band of employer



Proportion of employers experiencing skill gaps

5.4 Using the broad staff categories – managers, supervisors, technical staff, administrative staff, tradesmen and operatives – employers were asked how many of the staff that they employed in each area they would consider to be fully proficient at their jobs. Individual employees who are classified as not being fully proficient in their job role are said to have 'skill gaps'. Approximately one in seven employers (15%) stated that they had at least one member of staff who they would not consider to be fully proficient. At an overall level, a total of around 6,200 skill gaps were reported – equivalent to 6% of the total workforce.

5.5 *Figure 5.3* illustrates the proportion of employers reporting skill gaps by size of establishment. It also shows the total number of employees with skill gaps reported by each sizeband.

5.6 The proportion of employers reporting skill gaps increases steadily by size of establishment – this is entirely expected given the greater number of staff among whom skill gaps can exist. One in ten of the smallest establishments (10%) had at least one member of staff with skill deficiencies compared with two-fifths of those with in excess of 50 staff. Over half of the skill deficiencies for the whole construction sector in Scotland are found in establishments with over 50 employees (3,350 out of the 6,200 reported for the country as a whole, representing 54%). This is more than accounted for in terms of total employment within this size of employer (42%).

FIGURE 5.4

Proportion of employers who have skill gaps by area

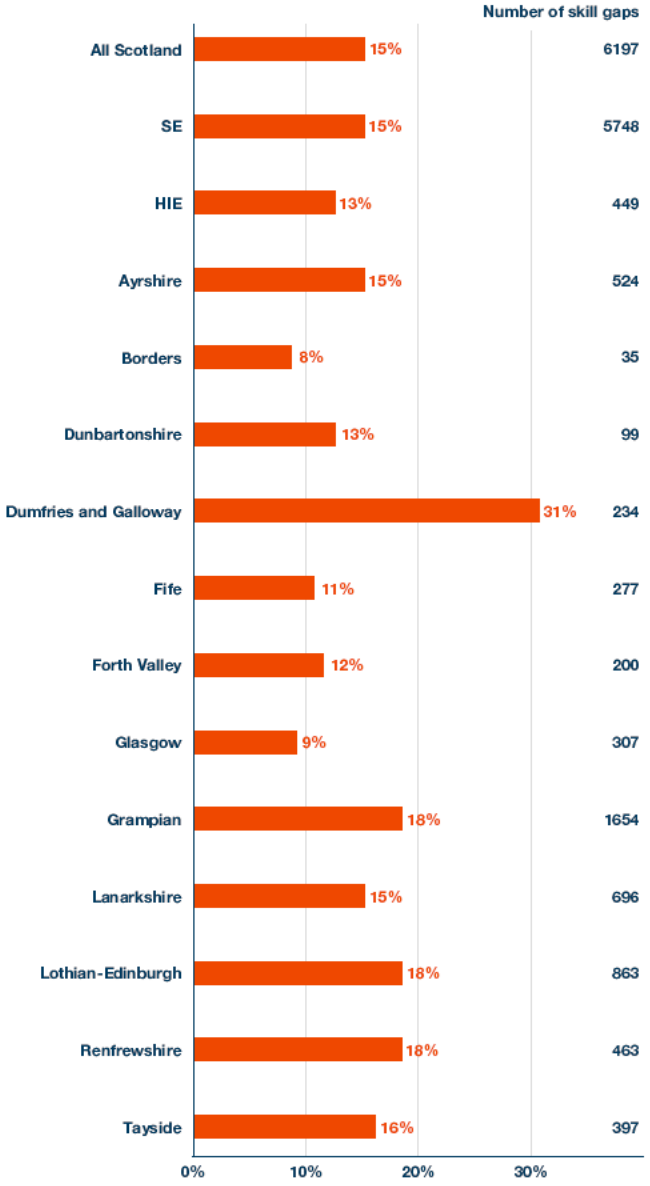
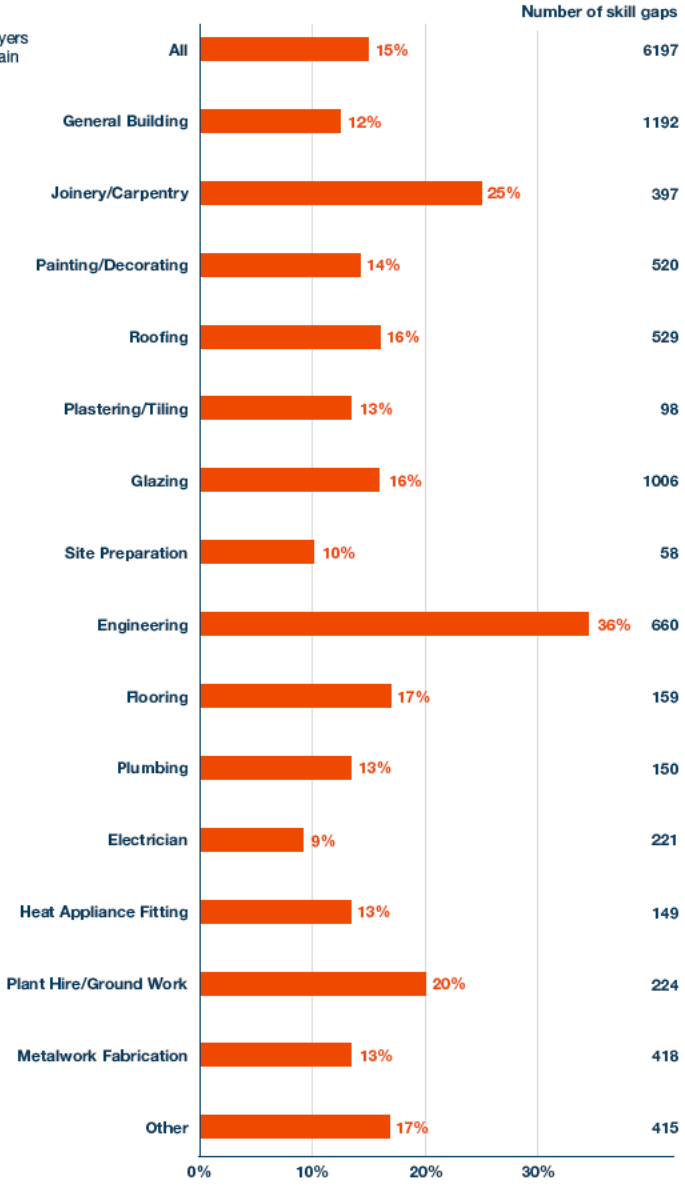


FIGURE 5.5

Proportion of employers with skill gaps by main activity of employer

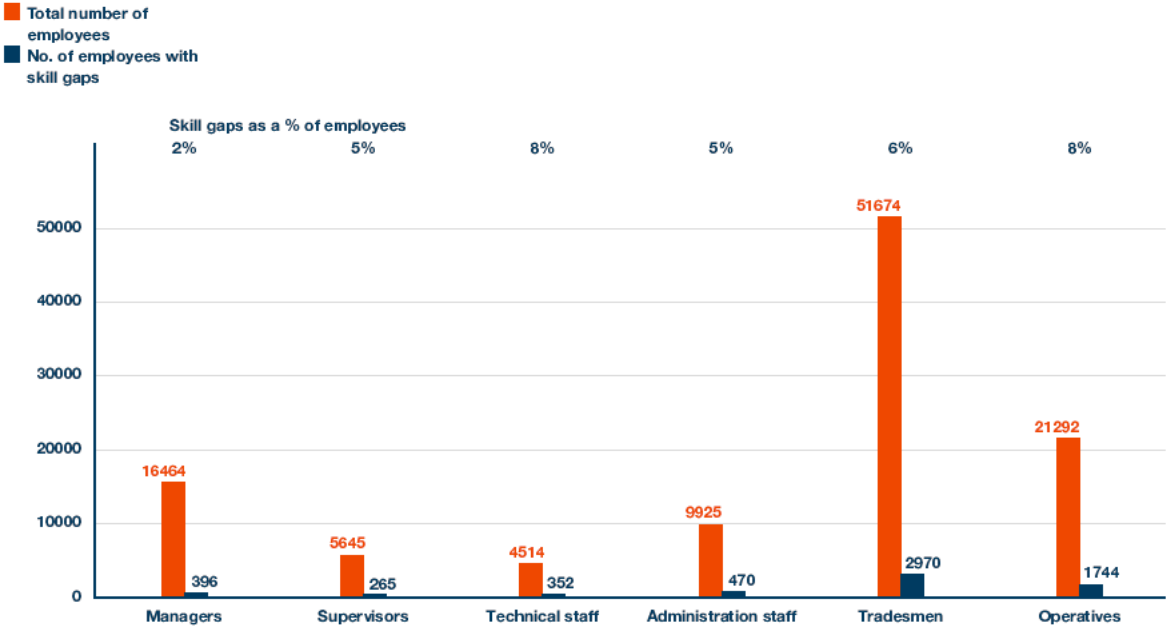


5.7 *Figure 5.4* looks at the same information by geographical area.

5.8 The 6,200 construction skill gaps across Scotland as a whole split into around 5,750 in the Scottish Enterprise area and 450 in the Highlands & Islands. This means that 7% of skill gaps are found in the Highlands & Islands – a proportion slightly lower than the proportion of all Scottish construction employment accounted for by the area (10%).

5.9 There was not a great deal of variation in the propensity to report skill gaps by LEC across the Scottish Enterprise area with the exception of Dumfries and Galloway where employers were twice as likely to report skill gaps compared to the average for the region. Dumfries and Galloway employers were also more likely than average to report hard-to-fill vacancies (Chapter 4) and it may be that the recruitment difficulties that they have experienced have made them more likely to take on recruits that do not have all the skills necessary for them to fulfil their job roles fully. Employers in the Borders region and in Glasgow were noticeably less likely than average to report skill gaps (8% and 9% respectively).

FIGURE 5.6
Skill gaps as a percentage of employment



5.10 By volume, the largest number of skill gaps are found in the Grampian region (around 1,650 employees lacked proficiency). This region accounts for around 11% of construction employment in Scotland but experiences almost a quarter of its skill gaps.

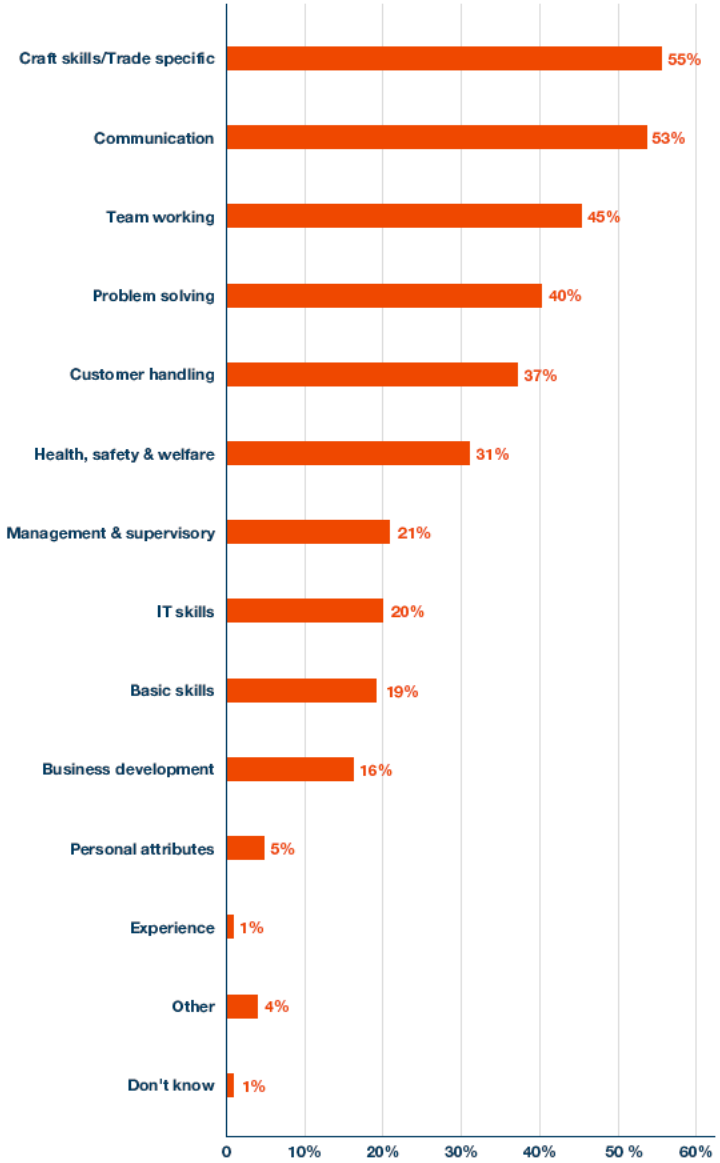
5.11 *Figure 5.5* shows the proportion of employers reporting skill gaps by main activity at the site.

5.12 The proportion of employers reporting skill gaps was considerably higher than average among those in the engineering and joinery/carpentry sub-sectors (36% and 25% respectively). Conversely electrician firms and site preparation establishments were the least likely to report skill gaps among their staff (9% and 10% of employers respectively).

Proportion of employees with skill gaps by occupation

5.13 *Figure 5.6* illustrates the total number of skill gaps reported for each broad occupational category and compares this to the total number of construction employees employed in each category to show the total proportion of employees in each category that lack proficiency.

FIGURE 5.7
Skill characteristics of skill gaps



5.14 On average, 6% of the Scottish construction workforce have skill gaps. Examination of this figure by broad staff category shows that managers are less likely than average to experience skill gaps (only 2% of all managers were said to be less than fully proficient). On the other hand, skill gaps were more likely than average to be found among technical staff and operatives (each 8%). The fact that a disproportionate number of hard-to-fill vacancies were for tradesmen but that staff employed as tradesmen were no more likely than average to display skill gaps would seem to indicate that employers are 'holding out' for applicants with the skills needed to be fully proficient rather than compromising by taking on staff that do not quite have the skill set that they require (and providing training or relocating work to accommodate this). If employers were compromising in this way, you would expect to see a disproportionate number of skill gaps among tradesmen.

Skills lacking among staff with skill gaps

5.15 Employers who reported skill gaps were asked which particular skills they felt those lacking proficiency needed to develop. *Figure 5.7* shows the skills reported as lacking on a skill gap base – so that for example, it shows that 20% of staff who employers described as lacking proficiency were said to lack IT skills (not: 20% of employers who had skills gaps in their workforce stating that IT skills were an issue). This figure is shown at an overall level because base sizes are too small to allow robust analysis at an occupational level.

5.16 Despite the fact that skill gaps for tradesmen account for the majority of skill gaps in terms of overall numbers (although not disproportionately to the total number of employees that they account for), craft skills were the skill area most commonly mentioned as lacking by only a small margin. Craft skills were mentioned in connection with just over half of all skill gaps (55%), but a lack of softer skills were felt to partly explain a fair number of skill gaps. Communication skills were seen to be lacking among 53% of staff who lacked proficiency, team working among 45%, problem solving among 40% and customer handling skills among 37%. One fifth of skill gaps were felt to result from a lack of basic skills.

FIGURE 5.8
Implications of skill gaps

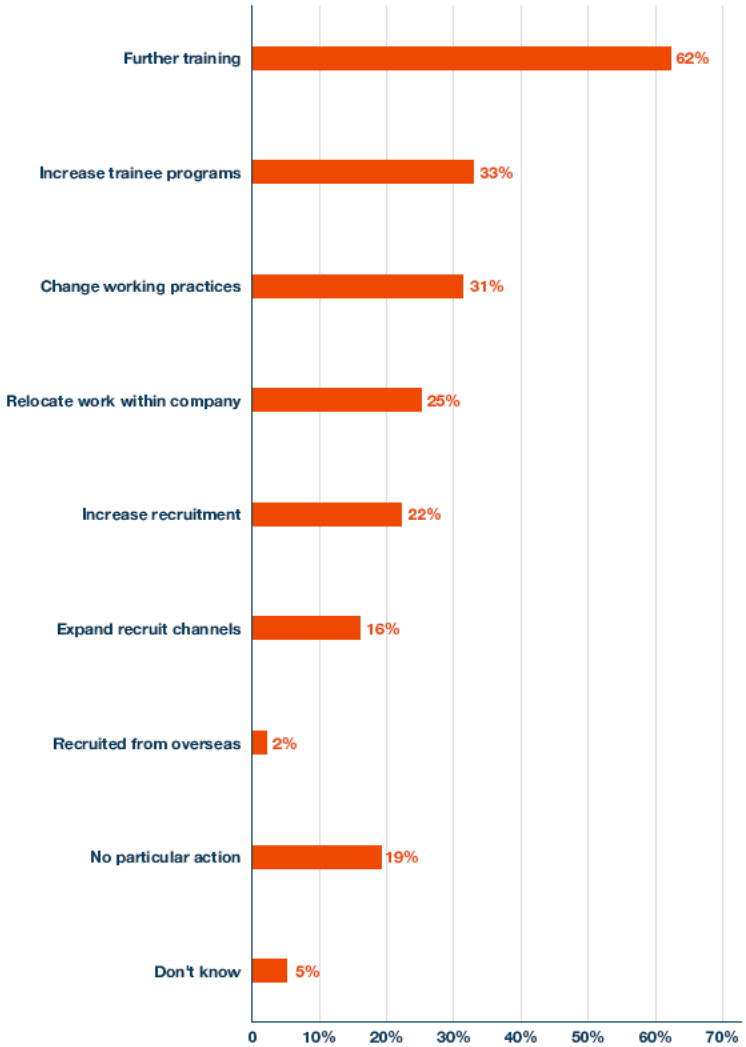
Implications of skill gaps

5.17 Those employers who stated that they had skill gaps were asked (on a prompted basis) whether the skill gaps that they were experiencing were having any of a series of implications on their business. The results of this line of questioning are shown in *Figure 5.8*. This chart is based on all employers with skill gaps.

5.18 The most commonly cited implication of skill gaps was increased operating costs – mentioned by nearly two-fifths of employers with skill gaps (38%). This direct cost on the bottom line was also demonstrated by the fact that just under a fifth of employers stated that skills gaps were causing them to lose business to competitors (17%). The implications of skill gaps were also evident in terms of the quality of service delivered – 28% stated that they were having trouble meeting their own customer service objectives and 26% of these employers were having difficulty meeting their own quality standards. In other establishments the presence of skill gaps was also have a 'strangling effect' in terms of limiting the employers capacity to move forward – 23% were having difficulty introducing new working practices, 20% difficulties in introducing new IT and 16% delays developing new products and services.

5.19 However there were just over a third of employers with skill gaps (36%) who stated that these gaps had not had any particular implications for their business so far. It is likely that these employers were only experiencing relatively minor skill gaps (in terms of either the proportion of their staff with skill gaps or the extent of the skill gaps for individual employees) or that these skill gaps were 'transitory' i.e. the result of factors such as apprentices being in the process of developing their skills (and something that the establishment is used to having to deal with).

FIGURE 5.9
Action taken to overcome skill gaps



5.20 Employers with skill gaps were also asked whether they had taken any particular action to overcome the skill gaps that they were experiencing. The range of actions that had been taken are shown on *Figure 5.9*.

5.21 The most common responses to skill gaps are to provide further training – three fifths of employers with skill gaps stated that this is the approach that they have taken. A third stated that they had had increased the trainee programmes that they offer – generally speaking meaning that they are providing more sustained ongoing training programmes for those with skill gaps. Others have sought to change the way in which the company operates to accommodate skill gaps – either through changing working practices or reallocating work to other staff. Others have looked to address skill gaps through recruitment. A fifth of employers have taken no particular action to combat skill gaps – again these employers are likely to be those experiencing relatively minor internal skill deficiencies.

Causes of skill gaps

5.22 Employers who reported skill gaps were asked whether the skill deficiencies that they were experiencing were a result of changing skill needs at their establishment as a result of either the introduction of new technology, the introduction of new working practices or the development of new products and services.

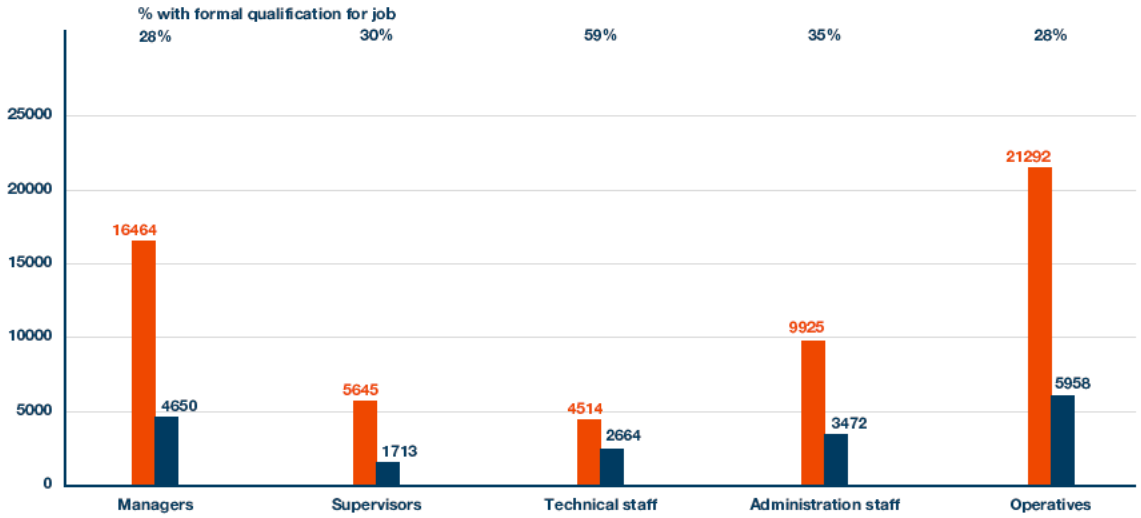
5.23 Seven out of ten employers with skill gaps stated that their internal skill deficiencies were not a result of changing skill needs in response to innovation in any of these areas. A quarter stated that changing working practices had resulted in skill gaps (23%) while one in seven stated that their problems were a result of the introduction of new technology (14%) and one in ten that skill gaps had arisen because of the development of new products or services (11%).

Qualification Levels

5.24 Clearly there need be no direct link between lacking qualifications and a lack of skills. Historically many in the industry have learned on the job without achieving formal qualifications. However, certainly the trend in the sector is for increased emphasis on the need for qualifications, with talk of certain occupations (or certain sites) needing qualifications and industry tickets to permit work.

FIGURE 5.10

Proportion of staff (excluding tradesmen) with a formal qualification

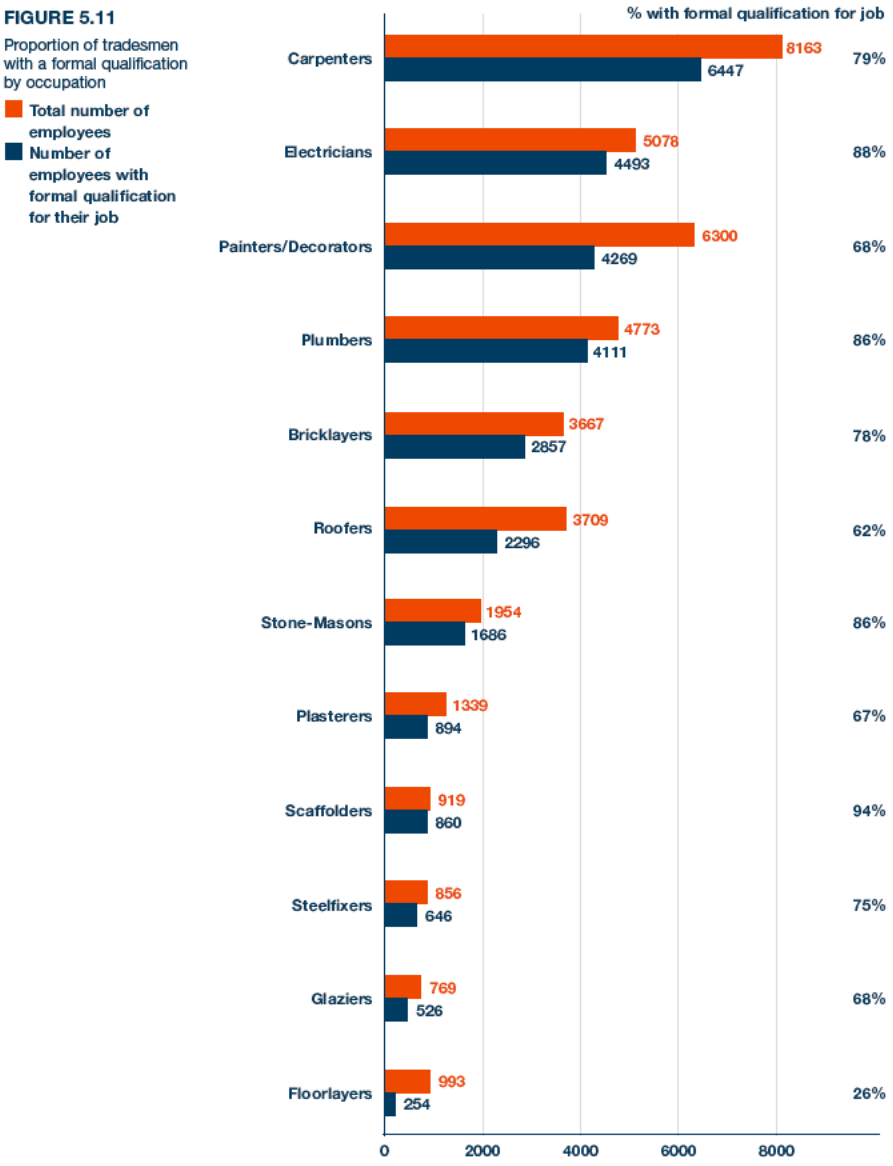


5.25 Employers were asked how many of the staff that they employed in each job role had a qualification specific to that role (i.e. how many managers had a management qualification, how many supervisors had a supervisory qualification and so on). *Figure 5.10* shows the proportion of staff in each category (other than tradesmen) employers felt had such a qualification shown alongside the numbers employed in each occupation for comparison. Along the top of the figure are shown the proportion with a formal qualification expressed as a percentage of all employees in each occupation.

5.26 Of the staff other than tradesmen, technical staff were the most likely to have a formal qualification relevant to their job role. Two thirds of staff employed in these roles had a formal qualification for that work (59%). In all other categories, including managers, the proportion with a dedicated qualification for their specific job stood at between a quarter and a third.

FIGURE 5.11

Proportion of tradesmen with a formal qualification by occupation



5.27 *Figure 5.11* shows the same analysis for tradesmen employees.

5.28 High proportions of staff employed as tradesmen have a formal qualification in their specific trade. Apart from floorlayers (of whom only a quarter have a formal qualification), between two-thirds and nine out of ten tradesmen have a formal qualification for their trade. The proportions of formally-qualified staff are highest among scaffolders (94%), plumbers (86%) and stone-masons (86%). Even among carpenters that account for the largest proportion of tradesmen in terms of absolute numbers, nearly four in every five tradesmen have a formal qualification.

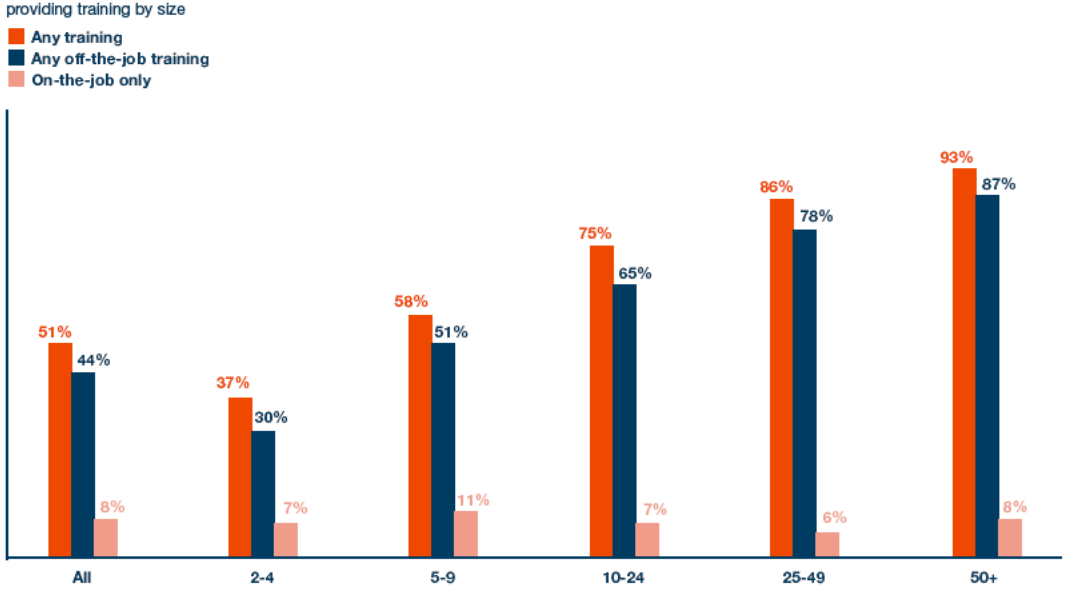
6.0 Training

6.0 Training

6.1 In this chapter we look at the extent of training activity among construction employers in Scotland, investigating the proportion of employers offering any training as well as the proportions offering off-the-job training, on-the-job training or both. We then go on to look at the reasons why certain establishments have chosen not to offer training to their staff. We also look at the profile of individuals who have received on-the-job and off-the-job training by occupational category and how this compares to the numbers employed in each category. Later sections cover the types of off-the-job training used, the providers of training and their participation in Investors in People. We also explore the extent of planning for training and levels of interest in obtaining CITB-ConstructionSkills support for this.

FIGURE 6.1

Proportion of employers providing training by size



Proportion of employers providing training

6.2 *Figure 6.1* shows the proportion of employers who have provided any training to any of their employees over the course of the last 12 months, the proportion who have offered any off-the-job training and the proportion who have offered on-the-job training only – at overall level and by size of establishment. The definitions used for on and off-the-job training were as follows:

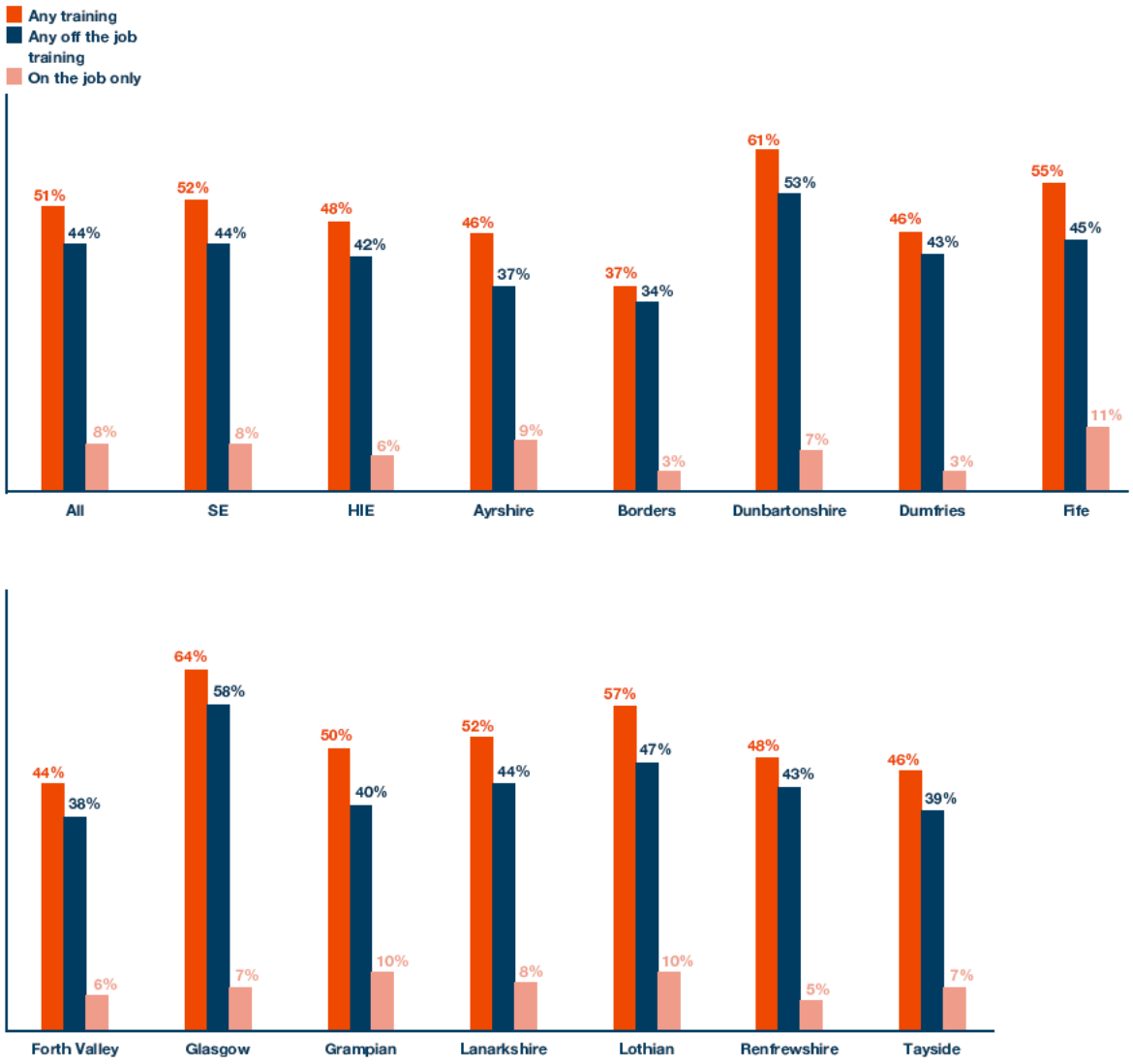
- **On-the-job training:** All training that is carried out at the immediate workstation (i.e. being supervised on-site, at a desk or normal working location within your establishment.)
- **Off-the-job training:** Training that is conducted away from the immediate workstation whether it is conducted at your premises or elsewhere. This can include all sorts of courses – full or part time; correspondence or distance learning; health & safety training and so on – as long as it is funded and/or arranged by you.

6.3 At an overall level, half of construction employers had offered any training at all (51%). This figure is below the average for Scottish employers across all sectors found in the Scottish Employer Skills Survey 2003 (64%).The propensity to provide training increases with size of organisation from two fifths of those with between 2 and 4 employees (37%) and almost all of those with in excess of 50 employees (93%).

6.4 Two fifths of all construction employers have provided off-the-job training (44%) while only 8% have provided on-the-job training only. It is interesting to note that while the proportion providing off-the-job training increases with size of establishment the proportion using on-the-job training only remains relatively constant by size. This indicates that there are only a very small minority of employers that are able to meet all their training requirements through on-the-job training (and that this is not necessarily linked to the size of the workforce involved) and that a decision to invest in training generally means the arrangement of some form of off-the-job training.

FIGURE 6.2

Proportion of employers providing training by area



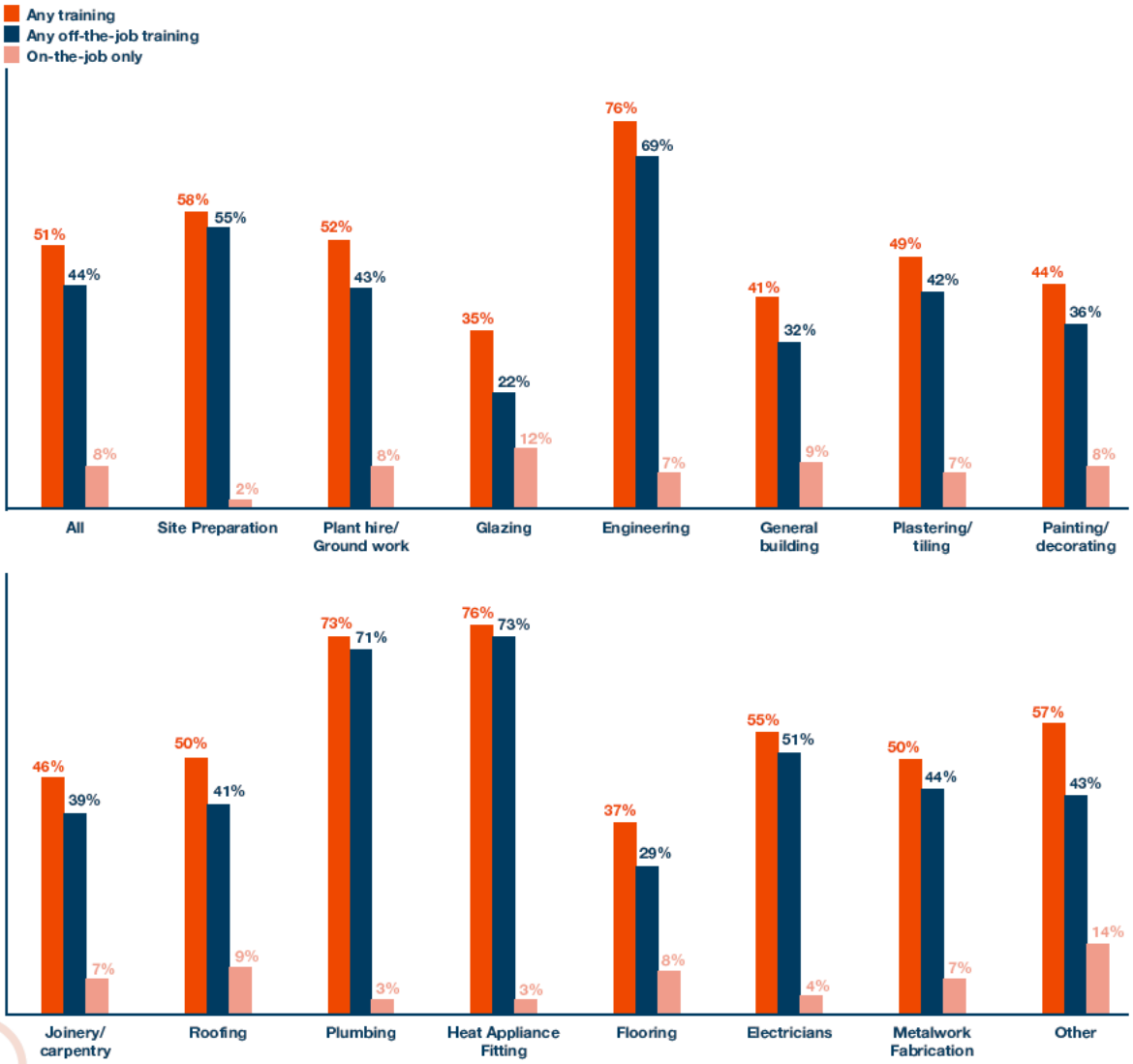
6.5 *Figure 6.2* looks at training activity by geographical area.

6.6 Employers in the Highlands & Islands are very slightly less likely to provide training than those in the Scottish Enterprise area – a fact that may reflect the size profiles of construction employers in the two areas. A total of 48% of Highlands & Islands construction employers have provided any training to their staff compared with 52% in the Scottish Enterprise area. The proportion of Highlands & Islands employers who had provided off the job training was at a comparable level with that found in the Bridging the Gap survey in 2002 (40%). Within the Scottish LECs, employers in Glasgow and Dunbartonshire are the most likely to have invested in training for their staff (64% and 61% respectively).

6.7 *Figure 6.3* shows training activity by the main construction activity carried out at the site. There is considerable variation in the propensity to train by sub-sector. The highest levels of training activity are found among employers in the engineering, heating/gas/appliance fitting and plumbing sub-sectors (with around three-quarters of employers in each of these sub-sectors having invested in training for at least some of their staff over the last 12 months). The lowest levels of training activity are found in the glazing and flooring sub-sectors (35% and 37% respectively).

FIGURE 6.3

Proportion of employers providing training by activity of employer



Total number of staff trained

6.8 Employers who had provided training were asked how many staff in each broad category had received off-the-job training, how many had received on-the-job training and how many staff had received any training at all. The broad job categories were the same as those used for the discussion of skill gaps i.e. managers, supervisors, technical staff, administrative staff, tradesmen and operatives.

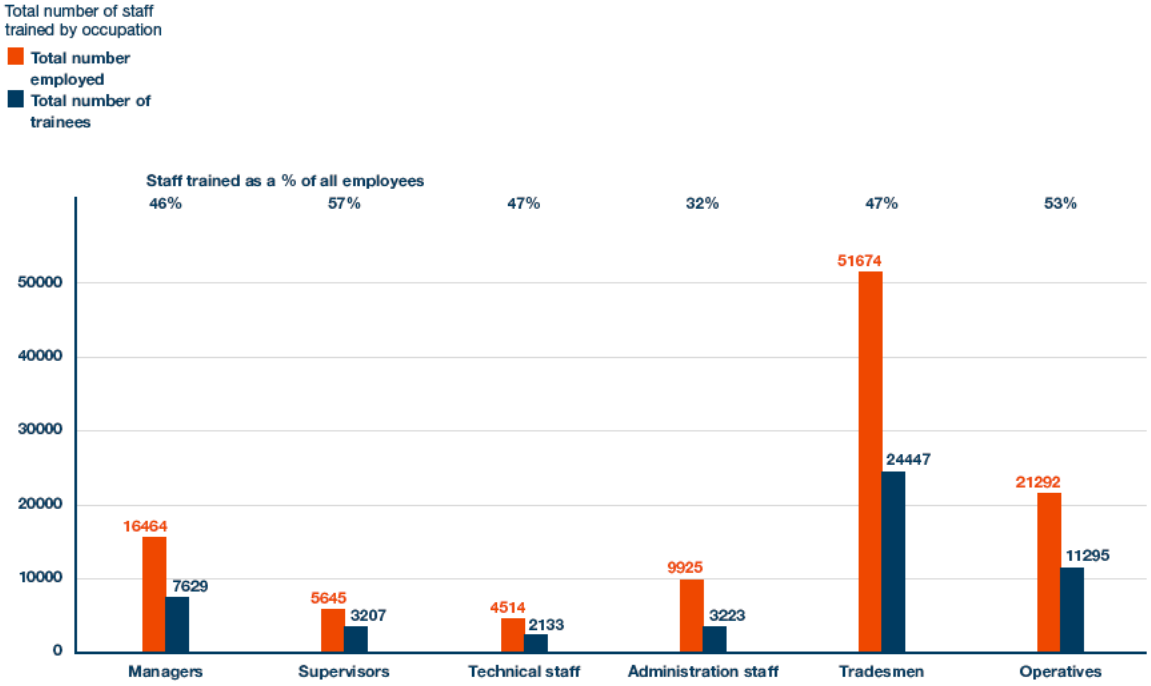
6.9 *Figure 6.4* shows total number of staff in each occupation who had received training in comparison to the total number of staff employed in each category across the whole Scottish construction sector. The figures show the number of trainees expressed as a proportion of all those employed in each category.

6.10 A total of around 52,000 construction workers have received some form of training over the course of the last 12 months – equivalent to around 47% of the total workforce. Operatives and supervisors are the most likely to have received training (57% and 53% respectively).

6.11 *Figure 6.5* shows a similar analysis by key construction activity – showing the total number of trainees per sub-sector as a proportion of all those employed in each area. This analysis shows that in terms of investment in training for the largest proportion of their staff, employers in the engineering sub-sectors provide the most training (71% of all staff in these establishments have received training). It is interesting to note that, whereby Figure 6.3 showed that employers in the plumbing and heating/ gas/appliance fitting sectors were among the most likely to provide any training, the proportion of staff that they have provided training to is only about average – indicating that these employers are quite selective about who they provide training to. The sub-sectors where the lowest proportions of staff have received training are flooring (23%), metalwork/fabrication (29%) and glazing (27%).

FIGURE 6.4

Total number of staff trained by occupation

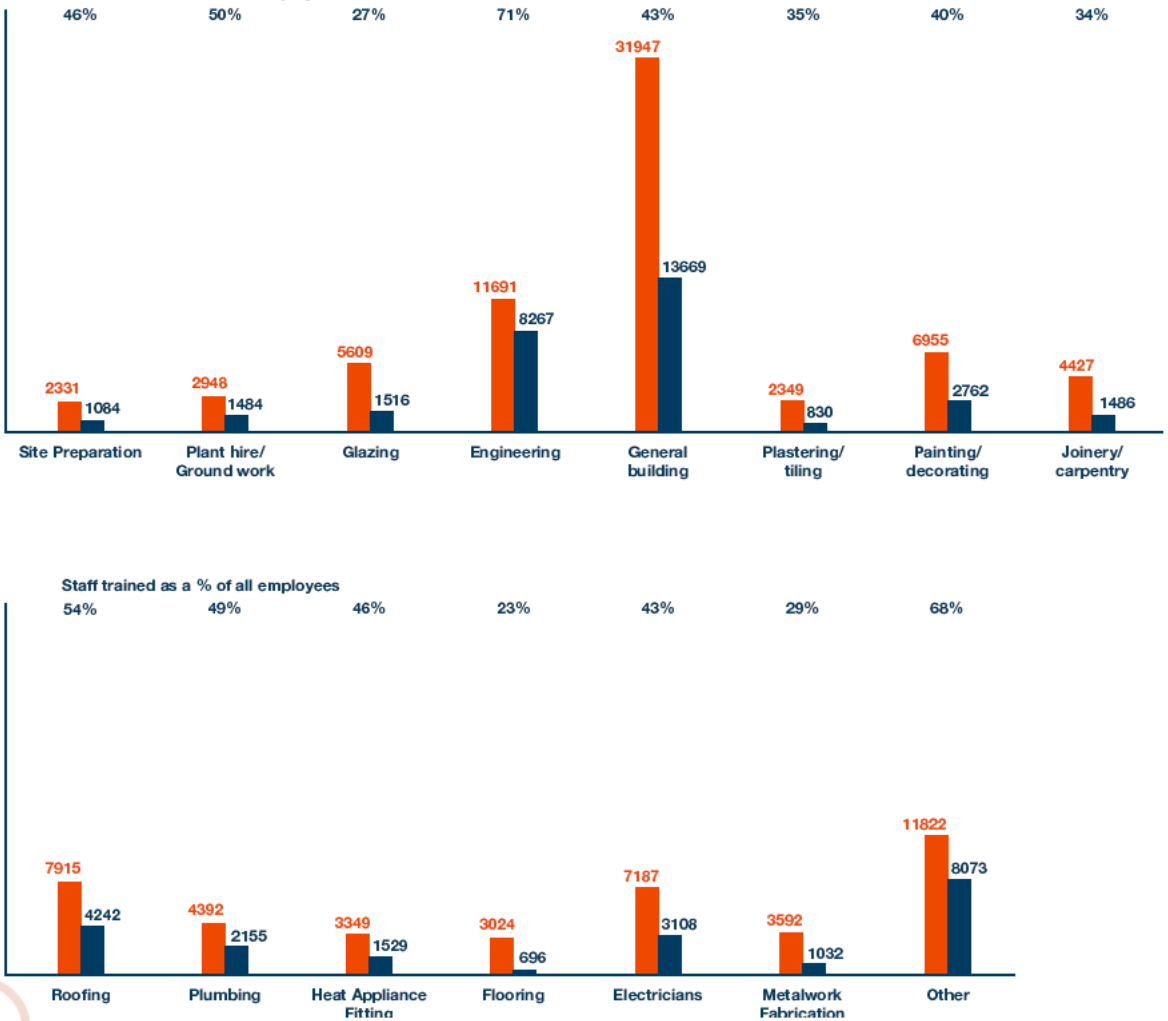


6.12 *Figure 6.6* shows a slightly different way of looking at this information by comparing the profile of all staff receiving training, all receiving off-the-job training and all receiving on-the-job training against the occupational profile of the construction sector in the same way as with vacancies in chapter 3. However, in contrast to the way figures were presented for vacancies and because employers were only asked about tradesmen as one group for the purposes of the questions about training, tradesmen are presented as one group in the employment profile.

6.13 The profile of trainees is broadly comparable with the employment profile for the sector indicating that employees are approximately equally likely to receive training regardless of occupational category. That said, administrative staff are slightly under-represented among trainees (accounting for 9% of employment but only 6% of employees). However, although they are equally as likely as other staff to receive any training, tradesmen are less likely than average to receive on-the-job training – they account for 42% of on-the-job trainees compared to their 47% of employment. Operatives are 'over-represented' among on-the-job trainees – they account for over a quarter of all on-the-job trainees compared to less than a fifth of all employment – indicating that employers find this a particularly appropriate route for the improvement of skills \among operatives.

FIGURE 6.5

Total number of staff trained by activity of employer



Nature of training provided

6.14 Employers who had provided training for their staff were asked what sort of subject-matter this training had covered. *Figure 6.7* shows the type of off-the-job training that had been provided at overall level and by size of establishment

6.15 Employers were most likely to have invested in trade-specific or health & safety off-the-job training for their staff (72% and 69% respectively of all those providing off-the-job training). Training on new equipment and first aid training had each been delivered off-the-job by around two-fifths of those providing off-the-job training. A third had invested in off-the-job induction training. Only one in ten had provided training in areas such as supervisory training, management training or business development training – this probably reflects for the relatively small proportion of all those trained accounted for by management and supervisory grade staff (albeit a proportion that is large relative to their share of employment).

FIGURE 6.6

Profile of trainees by occupation

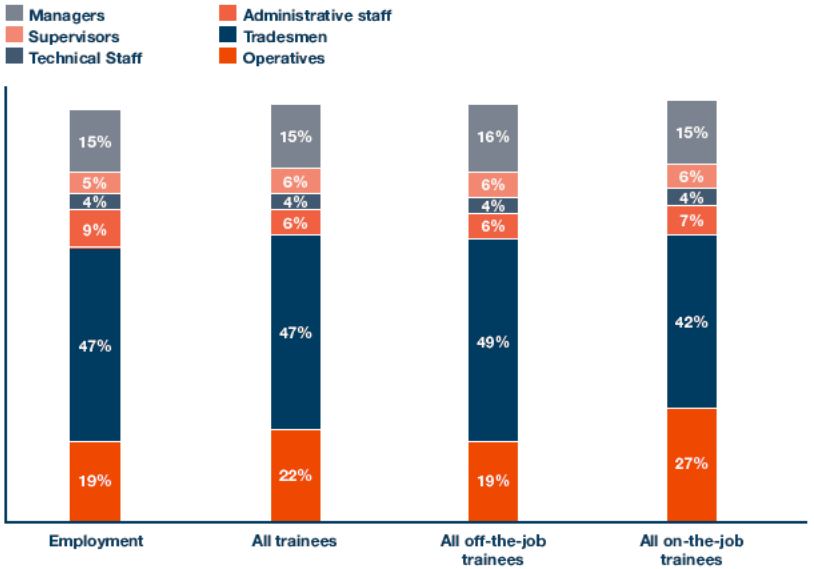


FIGURE 6.7

Types of off-the-job training provided by size of establishment

Base = All providing off-the-job training	All 1042	2 to 4 215	5 to 9 348	10 to 24 247	25 to 49 148	50+ 74
Weighted	4177	1577	1186	637	409	367
	%	%	%	%	%	%
Craft / trade-specific training	72	77	73	68	68	65
Health, safety and welfare training	69	59	71	74	84	85
Training on new equipment	45	39	45	46	54	59
First aid training	39	26	39	41	51	74
Induction training	33	25	31	34	44	66
IT training	20	12	16	20	32	55
Supervisory training	13	6	7	13	30	45
Management training	11	4	6	13	22	46
Business development training	10	3	8	12	24	33

6.16 Among those providing off-the-job training, all types of training are more likely to be provided by larger employers than smaller ones. The only exception to this is in the case of craft or trade-specific training where the proportion of employers offering training is relatively constant across size-bands. This probably reflects the crucial importance of skills in these areas to the effective functioning of the business. Smaller employers are likely to focus on getting these skills 'right' as a first step on their training programme with other types of training perhaps viewed as a later step.

6.17 The greatest variation by size of employer is seen for first aid training. Only a quarter of employers with between 2 and 4 employees (who had invested in off-the-job training) had provided off-job first aid training for staff compared with three quarters (74%) of those with in excess of 50 staff. A similar level of variation is seen in the case of induction training – reflecting their differing likelihood to have recruited staff.

6.18 *Figure 6.8* shows the different types of off-the-job training provided by the individual occupations who have received training.

FIGURE 6.8

Types of off-the-job training provided by occupation trained

Base = All employers providing off-the-job training to each staff category	All 1042	Managers 408	Supervisors 244	Technical staff 137	Admin. staff 243	Tradesmen 810	Operatives 298
Weighted	4177	1560	766	501	818	3234	985
	%	%	%	%	%	%	%
Craft / trade-specific training	72	46	43	38	15	79	45
Health, safety and welfare training	69	73	82	71	44	66	77
Training on new equipment	45	32	40	30	27	41	50
First aid training	39	38	48	37	31	31	38
Induction training	33	33	39	32	25	30	33
IT training	20	22	14	34	60	4	3
Supervisory training	13	19	39	19	6	4	3
Management training	11	25	11	18	6	2	1
Business development training	10	19	15	14	16	1	1

FIGURE 6.9

Types of on-the-job training provided by size of establishment

	All	2 to 4	5 to 9	10 to 24	25 to 49	50+
Base = All providing on-the-job training	719	144	213	183	107	72
Weighted	2892	1083	725	472	288	324
	%	%	%	%	%	%
Craft/trade-specific training	60	57	64	53	61	64
Health, safety and welfare training	57	52	52	57	63	75
Training on new equipment	44	39	47	36	55	56
Induction training	32	25	25	31	41	68
First aid training	24	15	23	26	33	44
IT training	20	7	18	27	45	39
Supervisory training	13	4	12	14	24	37
Management training	11	6	10	10	15	26
Business development training	9	3	7	9	18	24

6.19 As would be expected, employers are more likely than average to provide craft-specific training to tradesmen (79% of employers who train tradesmen off-the-job have provided them with craft training), to provide supervisory training to supervisors (39%) and to provide both management training and business development training to managers (25% and 19%). Employers are also more likely than average to have provided health and safety training to supervisors (and to a lesser extent to operatives) and to provide supervisors with first aid training. They are also more likely to have provided off-the-job training on IT to administrative staff than any other occupation.

6.20 Turning now to on-the-job training, *Figure 6.9* shows the types of on-the-job training that have been provided overall and by size of establishment.

6.21 The hierarchy of training types provided on-the-job is broadly the same as for off-the-job training with craft-specific skills the most likely to be developed, followed by health & safety training and training on new technology. The same patterns described for off-the-job training are also evident by size of employer.

FIGURE 6.10

Types of on-the-job training provided by occupation trained

	All	Managers	Supervisors	Technical staff	Admin. staff	Tradesmen	Operatives
Base = All employers providing on-the-job training to each staff category	719	204	151	87	191	442	222
Weighted	2892	724	504	300	606	1756	752
	%	%	%	%	%	%	%
Craft/trade-specific training	60	35	44	44	22	75	64
Health, safety and welfare training	57	65	72	70	41	69	69
Training on new equipment	44	35	47	38	26	54	56
First aid training	24	31	33	30	28	25	28
Induction training	32	36	37	30	23	35	41
IT training	20	29	16	51	71	2	1
Supervisory training	13	17	37	22	4	5	3
Management training	11	26	10	24	10	2	1
Business development training	9	26	7	22	11	1	*
Don't know	3	6	2	1	2	2	3

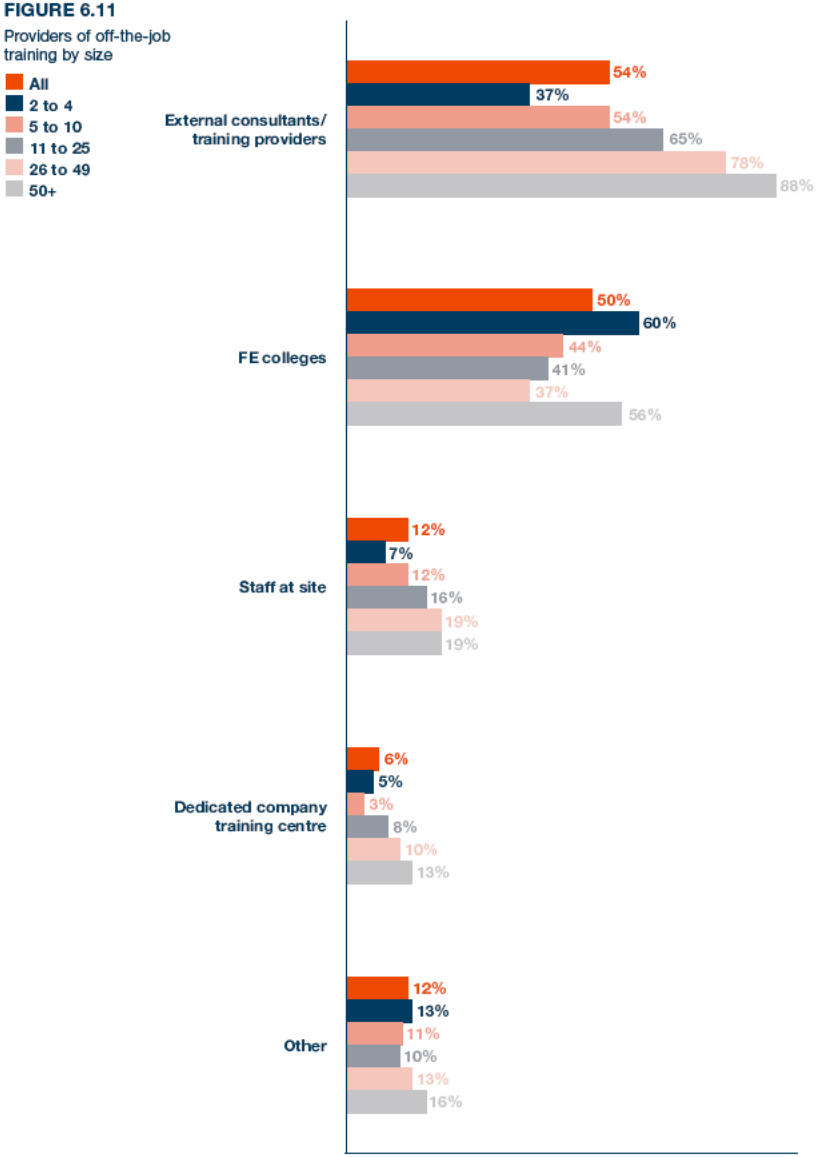
6.22 *Figure 6.10* shows the types of training provided by employers investing in on-the-job training by occupation of staff trained. Again the patterns shown in terms of variations in types of training delivered by occupational category are very similar as for off-the-job training. Some of the key variations are highlighted.

6.23 Employers who had provided off-the-job training were asked who had provided this training. *Figure 6.11* shows the providers used at an overall level and split by size of establishment (by area there is relatively little difference, other than slightly more use of FE colleges among those in Highlands and Islands; hence we have shown this split).

6.24 Just over half of employers who had invested in off-the-job training had used external training providers (54%) and a similar proportion had used Further Education colleges to deliver at least some of their training (50%). Only one in eight employers had been able to use staff based at their own site to deliver off-the-job training (12%) and an even smaller minority had used a dedicated company training centre (6%).

6.25 By size of establishment, larger establishments are more likely to use each type of training provider with the exception of Further Education colleges. Since this chart is based simply on those who have provided off-the-job training, the fact that larger employers are more likely to use each type of training provider reflects the fact that they are more likely to be delivering off-the-job training through a variety of means. Interestingly, however, the smallest employers (those with between 2 and 4 employees) are as likely to have used FE colleges as the largest establishments. In part this is because they do not have the resources available to deliver courses internally and do not have dedicated training centres available, but it does demonstrate a preference for colleges over private training providers among these smallest employers.

FIGURE 6.11
Providers of off-the-job training by size



Reasons for not providing training

6.26 Employers who had not provided any training for their staff were asked whether there was any specific reason why they had chosen not to invest in training. The answers given are shown in *Figure 6.12*.

6.27 The key reason given for not providing training was simply that employers felt that their staff were already proficient and hence there was no need for training. It is always difficult to establish the extent to which this it is genuinely the case that all employees have all the skills necessary to perform their job as well as is possible and to what extent employers are 'used' to a job role being done in a particular way and unable to see beyond this to how it could be done better.

FIGURE 6.12
Reasons for not providing training

	All
Base = All not providing training	784
Weighted	4577
	% of employment
Staff already proficient	52
Lack of time for training	13
Training not a priority for the business	12
Lack of funds	9
Lack of cover for training	3
No appropriate training available locally	3
Prefer employees to learn as they work	1
New business hence not invested yet	1
Staff not keen to take up training opportunities	1
Work is too varied to be met by training courses	1
Will start soon	1
Other reason	5
No particular reason	7

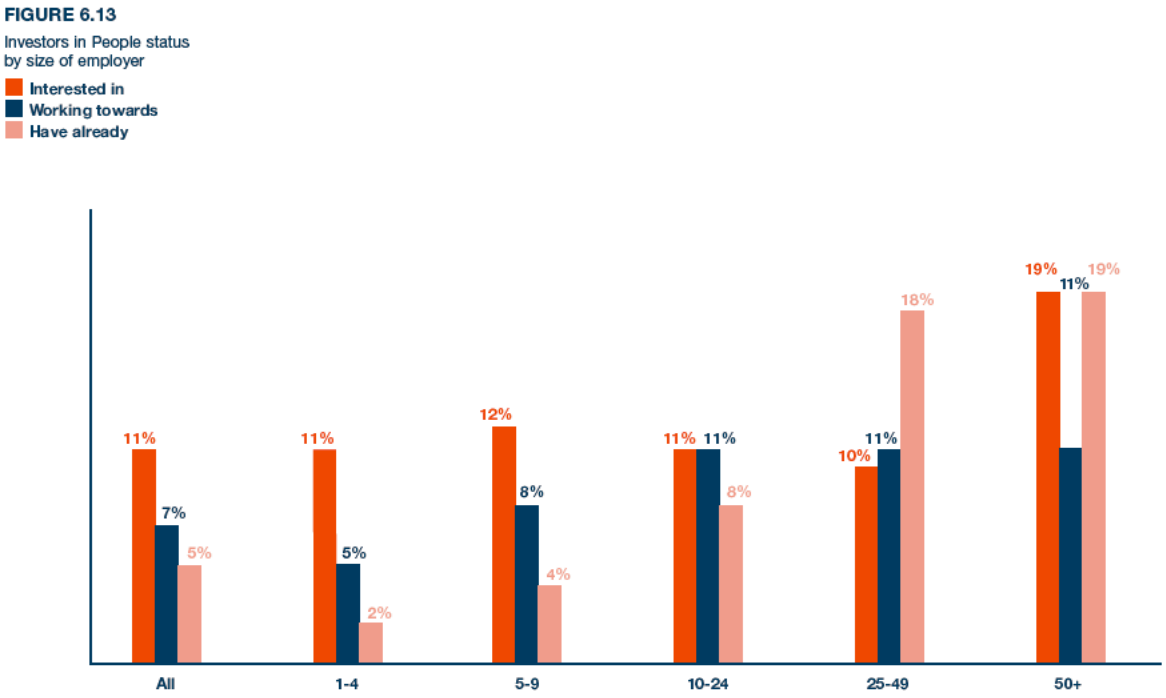
Small minorities of employers also stated that they didn't have time for training – either in terms of being able to spare staff from their everyday work role (13%) or, from a management perspective, having time to think about and plan for training due to other priorities (12%). Only one in eleven (9%) stated that they had not provided training because of cost concerns. Encouragingly from the CITB-ConstructionSkills' point of view, there is also little sign of a lack of local provision being a significant cause of non-provision of training, indeed this was only mentioned by 3% of non-trainers.

Investors in People

6.28 All employers were asked about their engagement with the Investors in People standard – in terms of whether they had achieved IiP or were working towards it. Those who had not had any involvement with the standard so far were asked whether they were interested in achieving Investors in People.

6.29 Only 5% of all construction employers had achieved IiP compared with an average of 17% for Scotland as a whole (from the Scottish Employer Skills Survey 2003). A further 7% stated that they were in the process of working towards IiP status and 11% indicated that they were interested in doing so. *Figure 6.13* shows the variation in IiP status by size of employer.

FIGURE 6.13
Investors in People status by size of employer



6.30 The proportion of construction employers who have achieved IiP status increases with size of establishment and then plateaus at establishments with more than 25 employees. Only 2% of establishments with between 2 and 4 employees had achieved IiP compared with 18% of those with 25 or more employees. The proportion of employers who had not yet started working towards IiP but were interested in doing so stood at 10-12% of employers in most size-bands although there was a slightly higher level of interest among the larger employers (18% of those with 50 or more employees stated that they were interested in IiP).

6.31 *Figure 6.14* shows Investors in People status by geography.

6.32 Construction employers in the Highlands and Islands were more likely to have made a commitment to IiP than those in the Scottish Enterprise area. A total of 19% of Highlands & Islands employers had achieved or were working towards IiP compared with only 11% in the Scottish Enterprise employers. The proportion who had achieved or were working towards the award in the Highlands & Islands employers is at approximately the same level as was found in the Bridging the Gap survey in 2002. Among the Scottish Enterprise LECs, employers were more likely to have made a commitment to IiP in Glasgow (19% have either achieved IiP or are working towards it), Dunbartonshire (14%) or Lanarkshire (14%).

FIGURE 6.14

Investors in People status by area

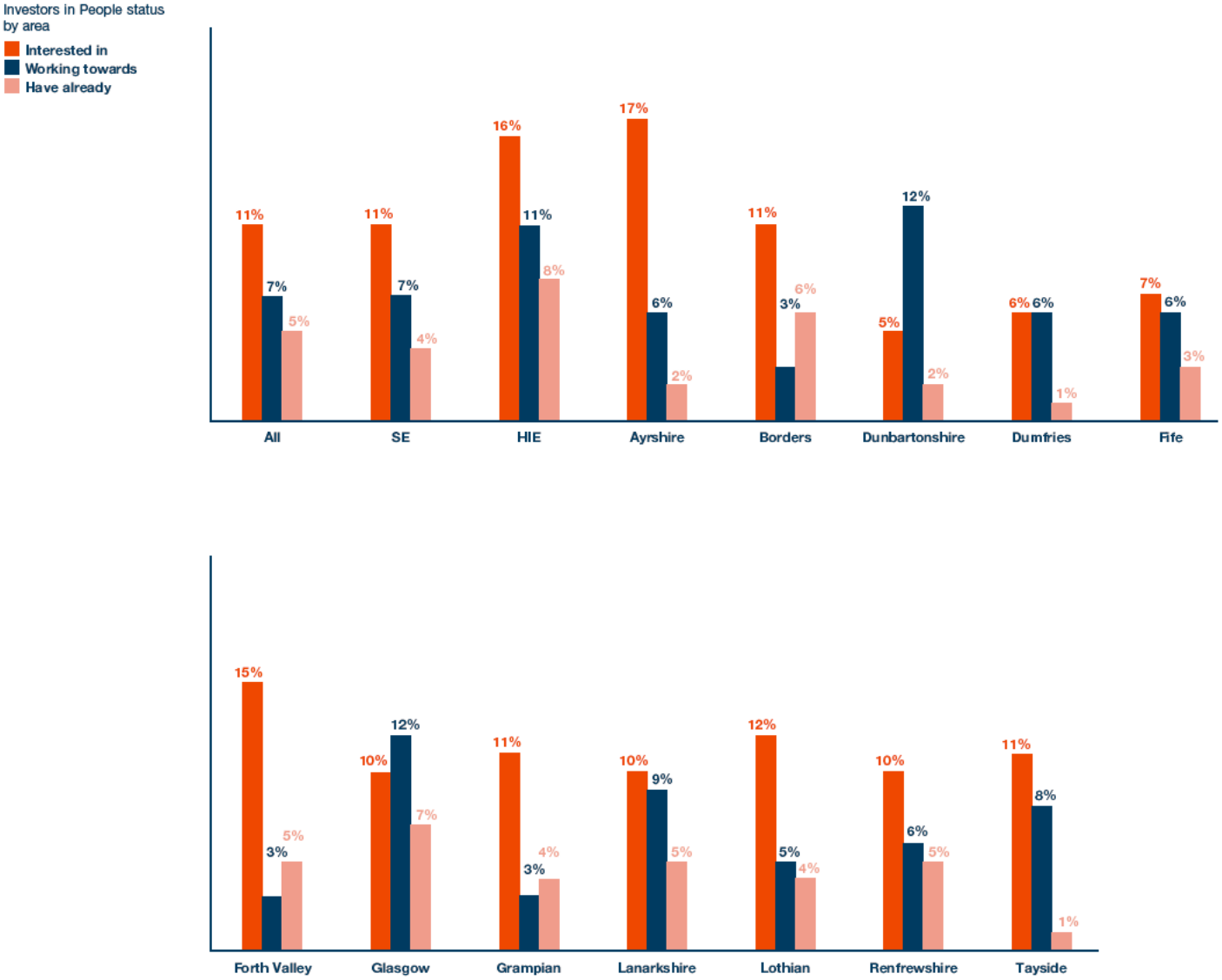
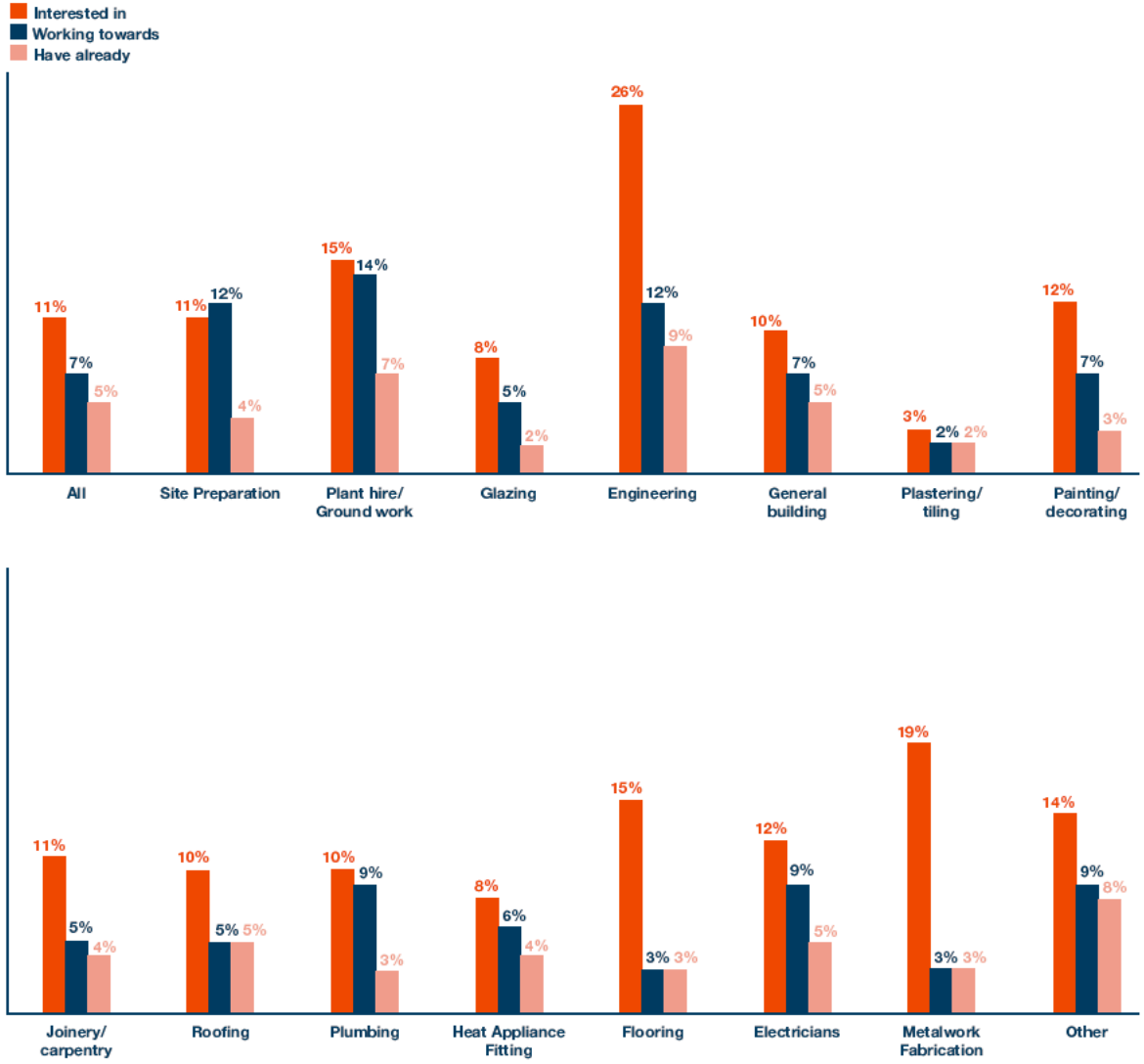


FIGURE 6.15

Investors in People status by main activity at establishment



6.33 *Figure 6.15* shows the proportion of employers with IiP by the main activity at the establishment.

6.34 The largest proportions of employers who have either achieved IiP status, are working towards it or are interested in achieving it are found in the Engineering and Plant hire / groundwork sub-sectors (47% and 36% respectively). The lowest levels of activity / interest are found among plastering / tiling employers (2% achieved and 2% working towards).

Planning for training

6.35 To help to ascertain the extent to which establishments have a structured approach to training, employers were asked whether they have a formal training plan in place that forecasts the amount and type of training that will be needed in the year ahead. Those who did not have a plan were asked whether they were interested in developing one and, if they were, whether they would like assistance in doing so.

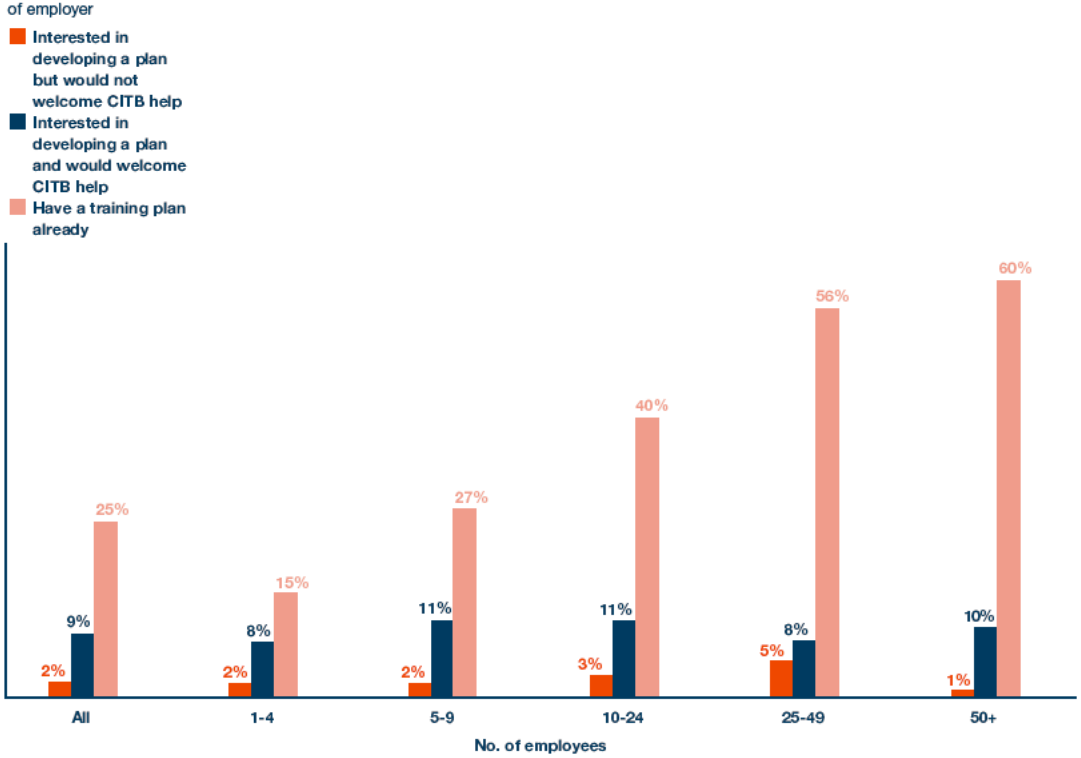
6.36 A quarter of construction employers stated that they did have a training plan in place (25%). A further 11% expressed interest in developing such a plan with the vast majority of these (9% of all employers) stating that they would welcome help in formulating a plan.

6.37 *Figure 6.16* and *6.17* shows the proportion of employers with training plans by size of establishment and by geographical area.

6.38 The likelihood of construction employers having a training plan increases with size of employer from around one in seven of those with between 2 and 4 employees to three-fifths of those with 50 or more staff. Within each size band approximately the same proportion of employers expressed interest in developing a training plan (between 8 and 11%) and the majority of these stated that they would be interested in assistance in doing this.

FIGURE 6.16

Proportion of employers with training plans by size of employer

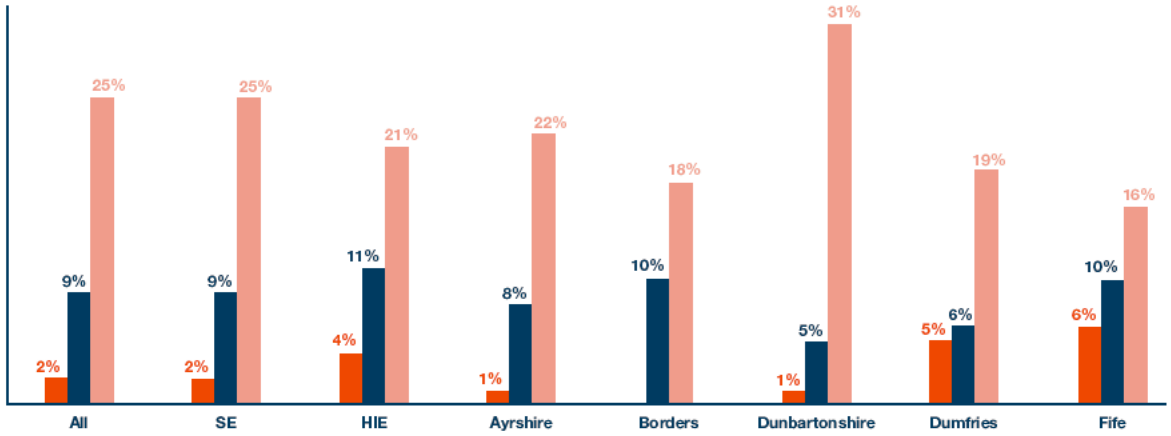


6.39 The likelihood of having a training plan is approximately the same in each of the Scottish Enterprise and Highlands & Islands Enterprise areas. The Bridging the Gap survey among Highlands & Islands employers in 2002 found a slightly higher proportion of employers with training plans (26%) . Among the Scottish Enterprise LECs, employers in Glasgow, Lanarkshire and Dunbartonshire were the most likely to have a training plan in place (around a third of employers in each of these areas had a training plan).

FIGURE 6.17

Proportion of employers with training plans by area

- Interested in developing a plan but would not welcome CITB help
- Interested in developing a plan and would welcome CITB help
- Have a training plan already



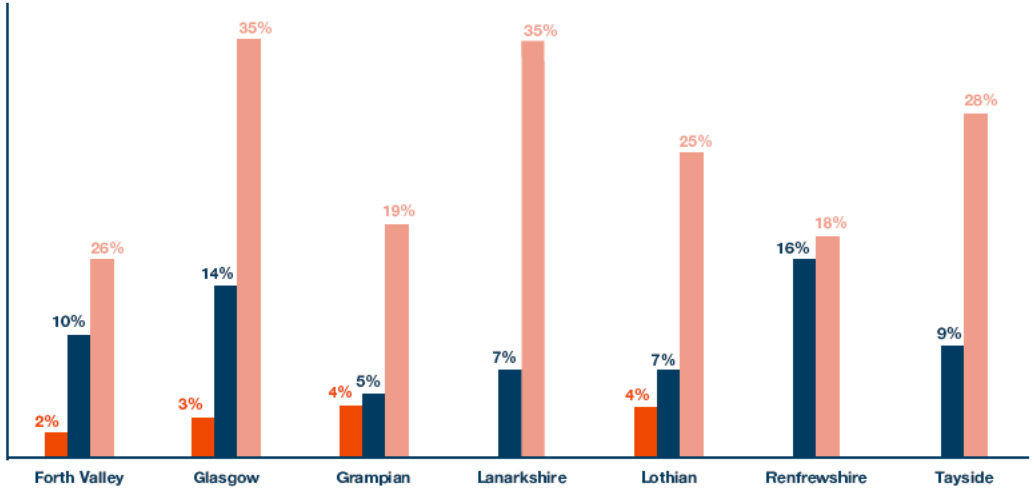
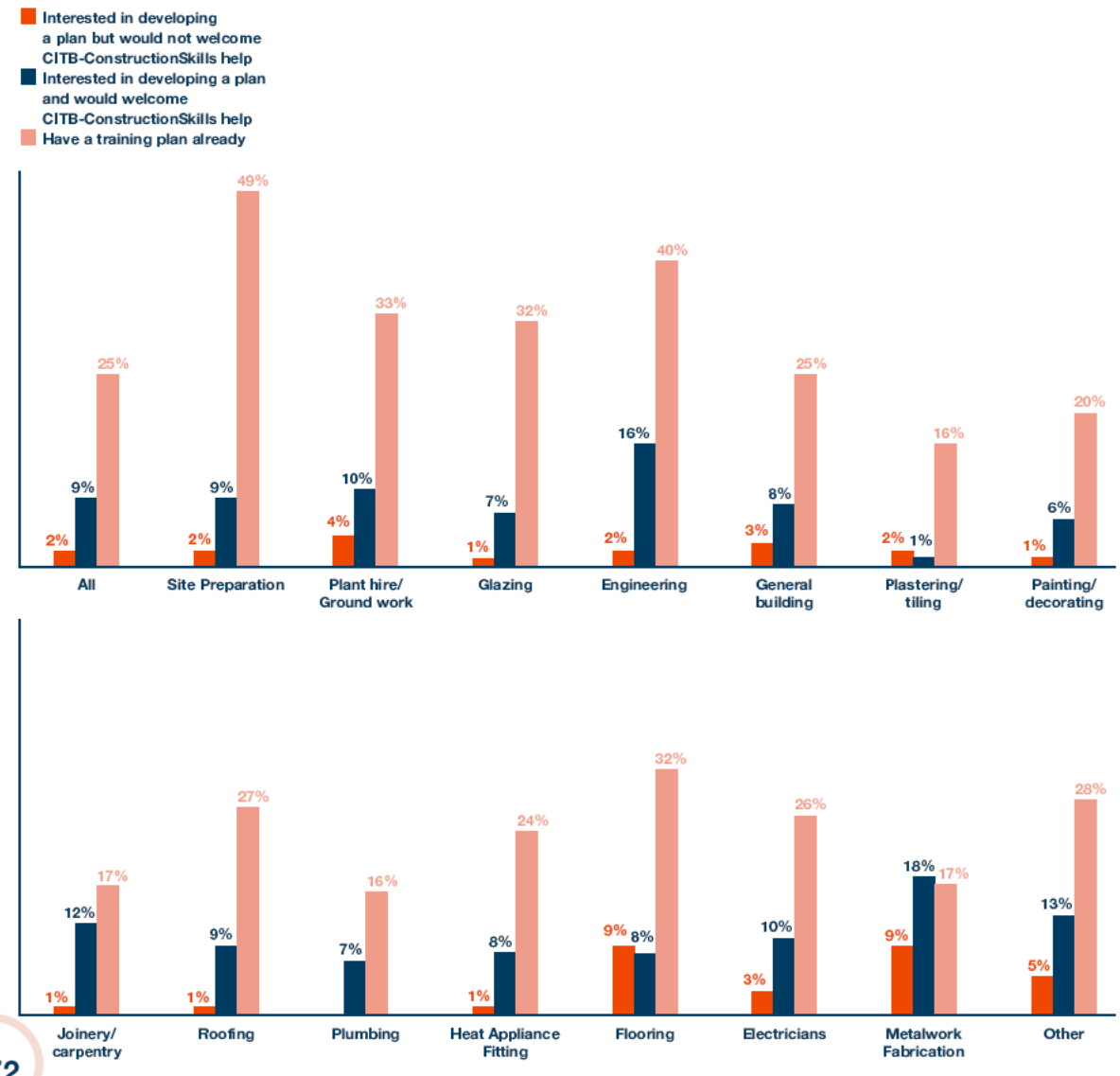


FIGURE 6.18

Proportion of employers with training plans by activity



6.40 *Figure 6.18* shows the variation in planning for training by main activity at the establishment. This shows that employers in the site preparation and engineering sub-sectors were the most likely to have developed a plan (49% and 40% respectively). Engineering employers (along with those in the flooring sub-sector and the metalwork/fabrication sub-sector) were also the most likely to express interest in developing a training plan.

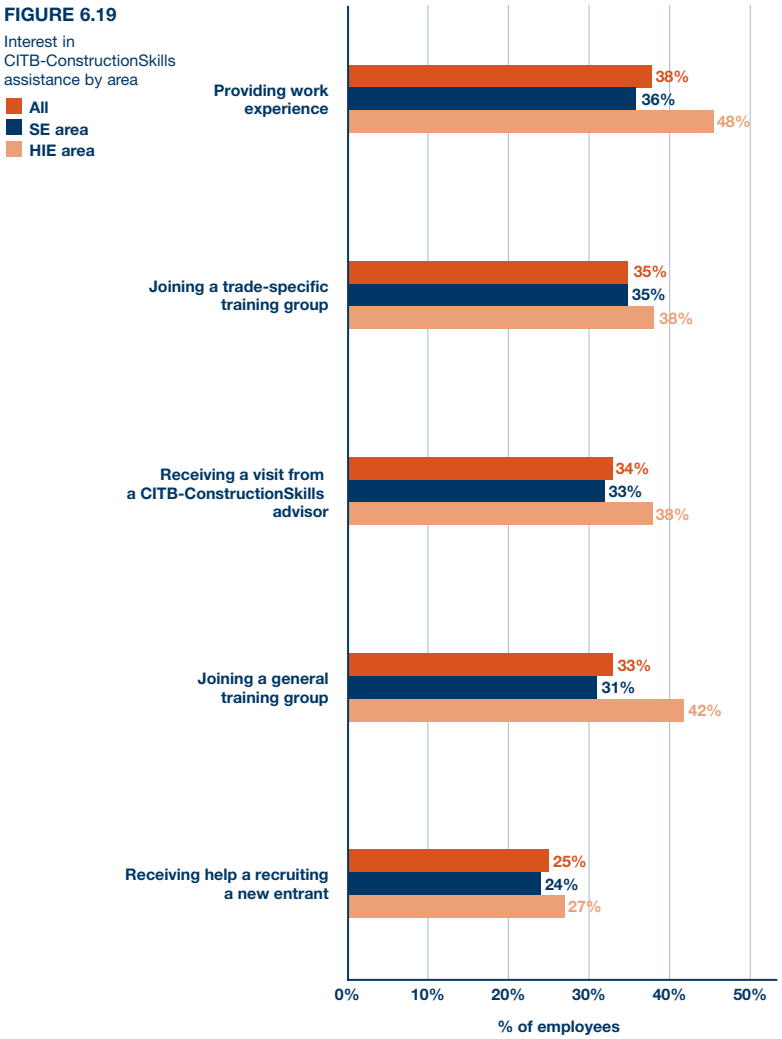
Interest in CITB-ConstructionSkills assistance

6.41 Employers were asked whether they would be interested in CITB-ConstructionSkills assistance with training and workforce development issues through each of the following:

- Joining a general training group;
- Joining a trade-specific training group;
- Receiving a visit from a CITB-ConstructionSkills training advisor;
- Receiving help on recruiting a new entrant to the construction sector;
- Providing work experience for a school pupil or college student.

FIGURE 6.19

Interest in CITB-ConstructionSkills assistance by area



6.42 *Figure 6.19* shows the proportion of employers who expressed interest in each of these areas at overall level and by Enterprise area.

6.43 Between a third and two-fifths of employers were interested in help in each of these areas with the exception of help in the recruitment of a new labour market entrant that only around a quarter of employers expressed interest in. Employers in the Highlands and Islands were more likely to express interest in each type of assistance – considerably more so in the case of providing work experience and joining a general training group.

6.44 *Figure 6.20* shows the variation in the levels of interest in assistance in each area by size of company and by main activity. Figures are shown as row percentages.

6.45 It is interesting to note that the levels of interest in each type of assistance tends to increase with size of employer. It is generally thought that smaller employers can lack the resources to develop their workforces on their own and hence are most likely to benefit from assistance. However these findings indicate that the smallest employers (with less than 5 employees) are likely to need more persuasion of the value of CITB-ConstructionSkills assistance than their larger counterparts.

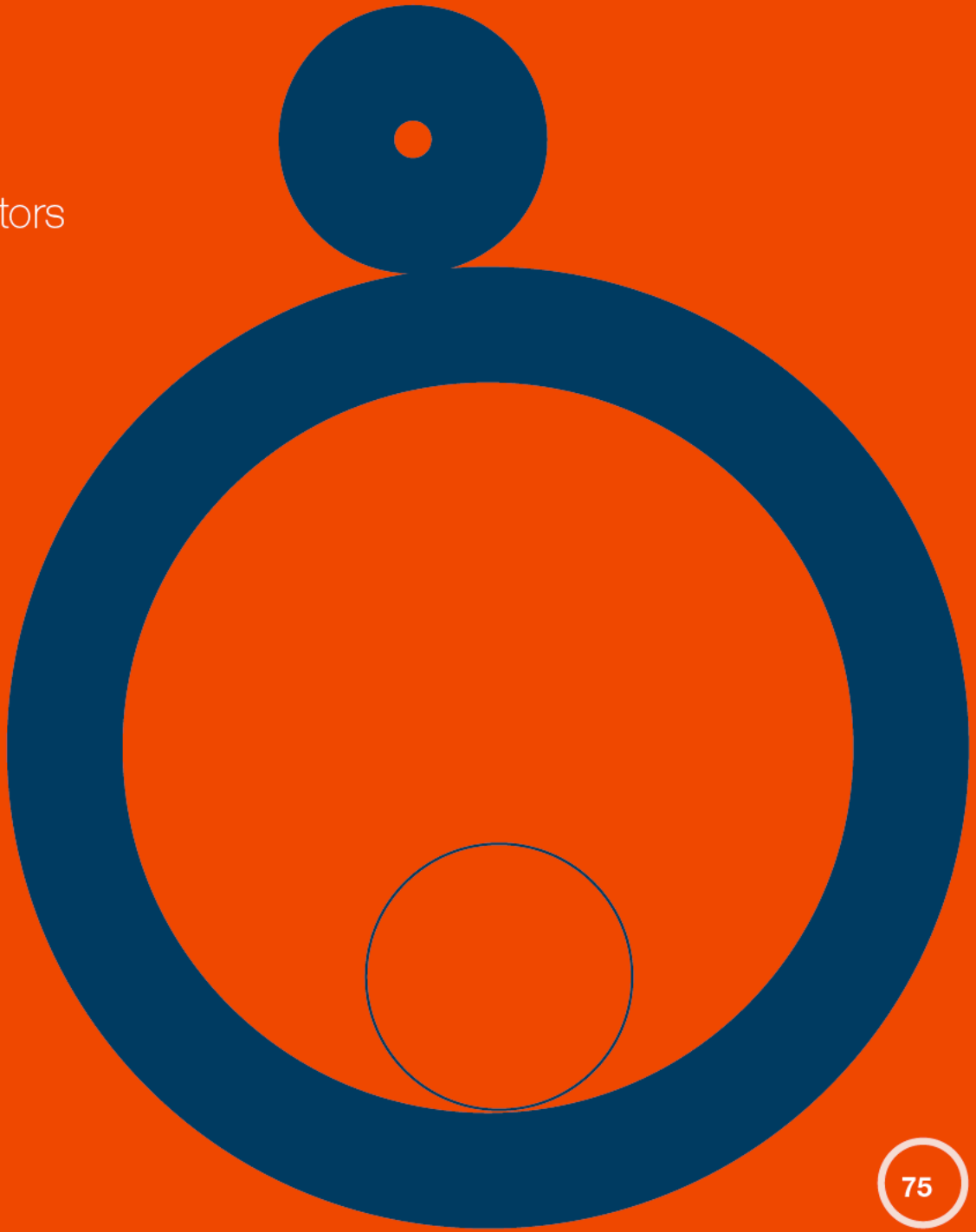
6.46 Employers in the engineering sub-sector are more likely than average to be interested in each area of assistance with the exception of recruitment of a new labour market entrant. Employers in the site preparation and flooring sub-sectors were also more interested than average in CITB-ConstructionSkills help in each area.

FIGURE 6.20

Interest in CITB-ConstructionSkills assistance by size of company and activity

	Base = All establishments		% of employers interested in assistance				
			General training group	Specific training group	Visit from CITB-ConstructionSkills advisor	Help to recruit a new entrant	Providing work experience
Horizontal %s	**Unweighted**	**Weighted**					
All employers	2000	9545	33	35	34	25	38
Size of Company							
Size							
2-4	654	5296	28	30	27	19	36
5-9	678	2314	32	36	38	27	38
10-24	386	990	41	43	44	34	38
25-49	184	519	59	56	53	39	51
50+	98	426	47	47	44	36	42
Sector							
General building	457	2088	31	26	33	26	38
Joinery/carpentry	158	814	31	31	46	25	45
Painter/decorator	178	940	26	29	27	22	36
Roofing	162	770	36	42	37	25	33
Tiling/plastering	64	355	28	44	37	36	37
Glazing	82	369	28	33	28	26	27
Site preparation	52	228	38	43	52	39	44
Engineers	72	251	46	41	56	23	46
Flooring	55	249	37	43	44	35	50
Plumbers	157	790	32	43	24	22	45
Electricians	179	885	35	43	25	18	38
Gas/heating/installation	92	449	34	38	33	19	37
Plant hire/groundwork	67	248	43	40	29	20	33
Steel/metalwork fabrication	44	206	35	33	25	11	20
Other	181	905	32	36	36	29	35

7.0 Use of Sub-contractors



7.0 Use of Sub-contractors

7.1 This chapter looks at the usage of sub-contractors and how this varied among the employers interviewed. To this end, contractors were asked:

- If they had used sub-contractors within the last six months and what type they used;
- The type of work sub-contractors were employed to do;
- Sub-contractors' skills levels;
- Whether any training was arranged for these workers.

Types of sub-contractors used

7.2 Over half of those interviewed (57%) were using sub-contractors currently or had done so over the last 6 months. Two fifths (42%) had employed labour-only sub-contractors while slightly fewer (35%) had employed other sub-contractors. These figures for sub-contractor usage varied most noticeably by industry sector as *Figure 7.1* illustrates:

7.3 Those who considered general building to be their main field of operation made the greatest use of labour-only sub-contractors (although their usage of other sub-contractors was also high). The engineering sub-sector is the most likely to have made use of other sub-contractors. In most sub-sectors, employers were more likely to make use of labour-only sub-contractors than other sub-contractors. The exceptions to this were in the case of engineers, plant hirers / ground workers and steel/metalwork fabricators and in these instances the differences between the proportions using labour-only sub-contractors and sub-contractors of other types were slight (9%, 8% and 4% respectively).

7.4 The following tables (*Figures 7.1 and 7.2*) show how usage of sub-contractors varied by establishment size, both in terms of numbers employed and annual turnover.

FIGURE 7.1
Sub-contractor usage by industry sector

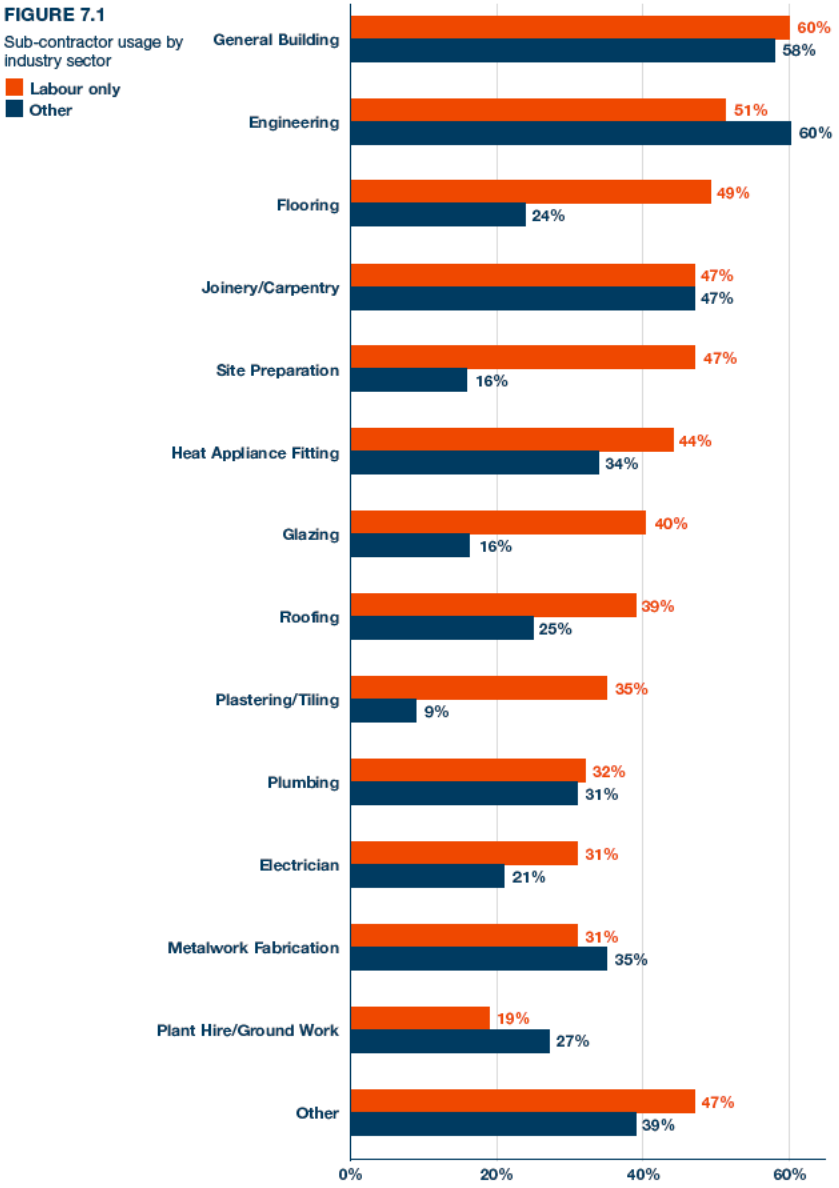


FIGURE 7.2
Use of sub-contractors by establishment size

	All	2 to 4	5 to 9	10 to 24	25 to 49	50+
Base = All employers	**2,000**	**645**	**678**	**386**	**184**	**98**
Weighted	9,545	5,296	2,314	990	519	426
	%	%	%	%	%	%
Use labour-only sub-contractors	42	36	44	49	58	74
Use other sub-contractors	35	26	41	48	48	72
Make no use of sub-contractors	43	52	39	29	23	12

FIGURE 7.3
Use of sub-contractors by turnover

	All	<£100k	£100k- £249k	£250k-£499k	£500k-£999k	£1million+
Base = All employers	**2,000**	**298**	**397**	**325**	**257**	**395**
Weighted	9,545	2,464	2,115	1,339	764	1,296
	%	%	%	%	%	%
Use labour-only sub-contractors	42	26	39	53	59	67
Use other sub-contractors	35	17	34	43	47	63
Make no use of sub-contractors	43	64	42	32	25	15

7.5 Regardless of the measure of establishment size (number of employees or turnover), the general trend was that the larger the establishment, the greater the use of sub-contractors, particularly labour only sub-contractors. In the case of companies with over 50 employees, almost three quarters employed sub-contractors (74% labour-only and 72% other sub-contractors).

7.6 There was no great variation in the use of sub-contractors by LEC area.

7.7 Those with hard-to-fill vacancies were more likely to use sub-contractors. Over half (53%) of establishments with such problems employed labour-only sub-contractors compared with 41% of contractors without recruitment difficulties. It was also the case that those with hard-to-fill vacancies were more likely to use other types of sub-contractor (45% compared with 34% usage among those without such vacancies). Hence it appears to be the case that use of sub-contractors often relates to an inability to recruit suitable staff.

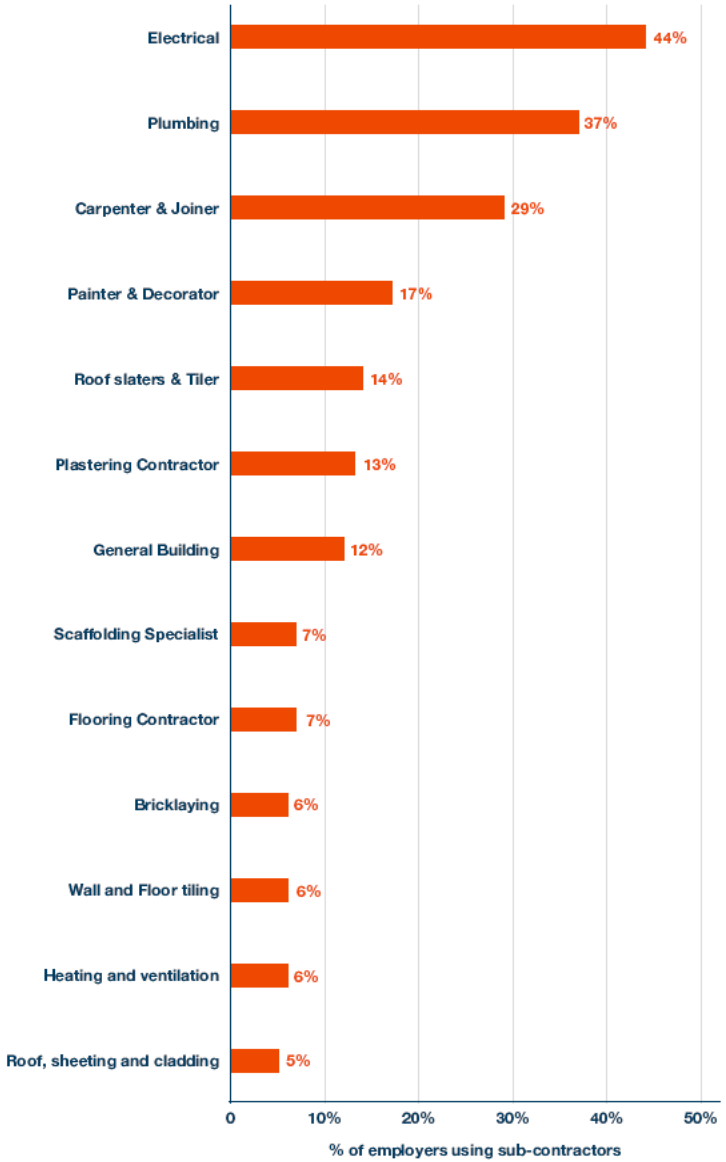
Types of work done by sub-contractors

7.8 The type of work sub-contractors were taken on for did not vary greatly by size, industry sector or LEC area. *Figure 7.4* lists the main types of work sub-contractors were employed to carry out, showing all types of work mentioned by 5% or more of those who employed sub-contractors.

7.9 Sub-contractors were most likely to be used for electrical and plumbing work (44% and 37% of all employers making use of sub-contractors used them in each of these areas). Reflecting the large proportion of hard-to-fill vacancies that are for carpenters/joiners, 29% of all employers using sub-contractors had used sub-contract labour for carpentry/joinery work. While occupations used for sub-contracting tend to relate to those occupations hard to recruit, electricians were much more common in regard to sub-contracting than hard-to-fill vacancies.

This suggests that sub-contracting electricians has become something of a norm, rather than it being because employers are trying to recruit electricians and failing. Around one in eight had used sub-contractors for each of painting/decorating, roof slating/tiling, plastering and general building work.

FIGURE 7.4
Types of work sub-contractor used for



Extent of skill deficiencies in sub-contractors

7.10 Employers who had made use of sub-contractors were asked which of a number of key skills (health & safety, craft-skills, management/ supervisory skills and IT skills) sub-contractors lacked, if any. The vast majority feel their sub-contractors did not lack any of these skills.

Only a fifth of those who had used sub-contractors (22%) had found them to be lacking in skills in any of these areas. Skill deficiencies were most pronounced in health/safety and welfare - just over one in ten (11%) of those establishments who had employed sub-contractors in the last 6 months founds skill-shortages in this area. *Figure 7.5* shows the proportion who found skills lacking in each area.

7.11 The fact that employers have not experienced many skill-shortages among their sub-contractors perhaps reflects the fact that employers are only prepared to use sub-contractors that they consider to be fully qualified for the job that they are hired to carry out, an implication which is backed up by the small proportion of companies who train the sub-contractors they hire (see next sub-section).

7.12 There was some variation by LEC area in terms of which skills were lacking. Just under a quarter (24%) of establishments in the Forth Valley stated that the sub-contractors they had employed in the last 6 months lacked craft or trade specific skills as did nearly a fifth (20%) of Dunbartonshire establishments. Health, Safety and Welfare skills were most obviously lacking in Glasgow, (an area which hired a higher percentage of labour-only sub-contractors) with one in five (20%) of establishments citing skills shortages in this area. Larger establishments were also more likely to find skill deficiencies among the sub-contractors they employed (perhaps indicating that they have higher standards) in 3 out of 4 prompted skill categories (not IT skills).

7.13 There was little variation in skill-shortages by industry sector, though if there was any disparity between the sectors, it tended to be with regard to Health, Safety and Welfare skills, or management and supervisory skills. Employers whose main type of work was engineering were more likely to find sub-contractors lacking in Health, safety and welfare skills than the average establishment (30% compared to 11% overall), which higher expectations may result from more stringent safety standards in this sub-sector.

Training provided for sub-contractors

7.14 The vast majority (93%) of establishments who had taken on sub-contractors in the last 6 months, did not arrange any training for them, which supports the idea that they expect sub-contractors to be fully skilled when they are employed.

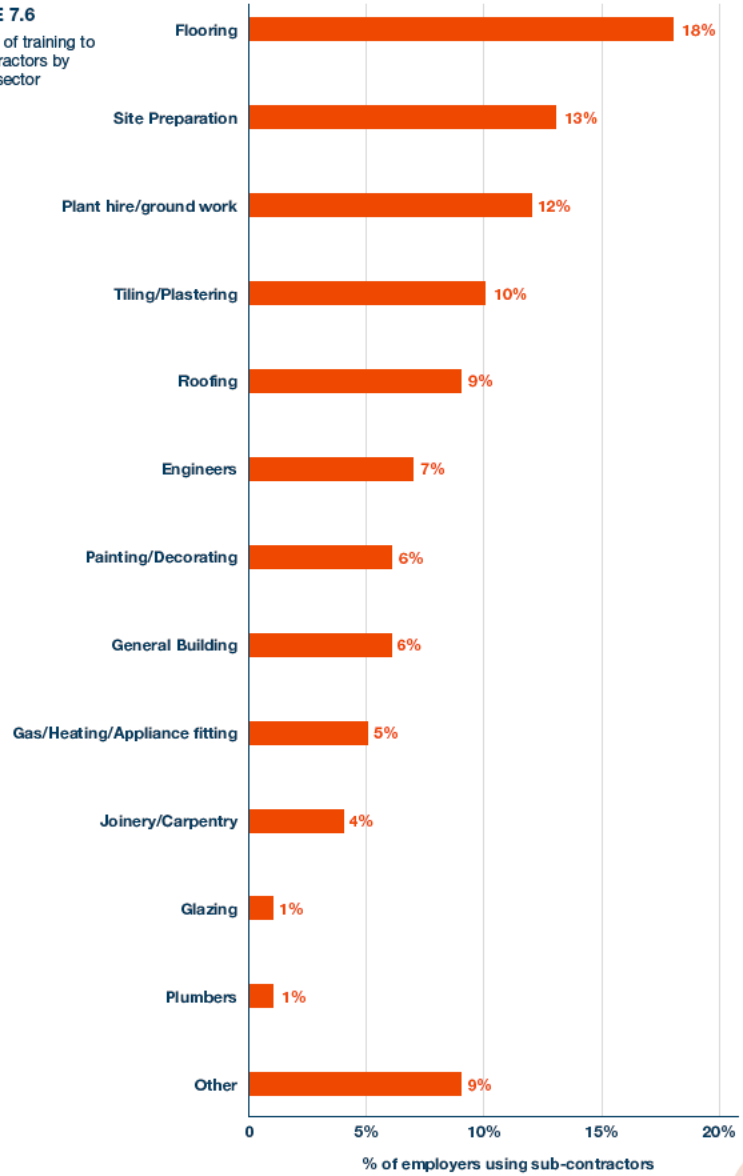
7.15 Employers in the largest size bracket were considerably more likely to have provided training for sub-contractors than their small or medium-sized counterparts. A fifth of employers with 50 or more staff who had made use of sub-contractors had arranged sub-contractor training (perhaps a result of the fact that they were more likely to have identified skill gaps among their sub-contractors) compared with 3% of those with between 2 and 4 employees, 6% of those with 5 to 10 employees and 8% of those with 11 to 49 employees.

7.16 *Figure 7.6* shows the variation in the proportion of all those using sub-contractors who have provided sub-contractor training by broad sub-sector. Employers in the flooring sub-sector are the most likely to have invested in training for their sub-contractors (18%) while those in the glazing and plumbing sectors were the least likely (only 1% of each of these groups of employers had provided training).

FIGURE 7.5
Skills lacking in sub-contractors

	All
Base = All employers using sub-contractors	1257
Weighted	5458
	% of employers using sub-contractors
Health, Safety and Welfare	11
Craft skills/Trade-specific skills	8
Management and Supervisory skills	7
IT skills	5
None of these	78

FIGURE 7.6
Provision of training to sub-contractors by industry sector



8.0 Contact Details

CITB-ConstructionSkills
Graeme Ogilvy
Scottish Manager
4 Edison Street
Glasgow
G52 4XN
Tel: 0141 810 3044

Hugh McCafferty
Area Manager (West)
4 Edison Street
Glasgow
G52 4XN
Tel: 0141 810 3044

Bill McCrudden
Area Manager (East)
Pritchard House
32 Inglis Green Road
Edinburgh
EH14 2ER

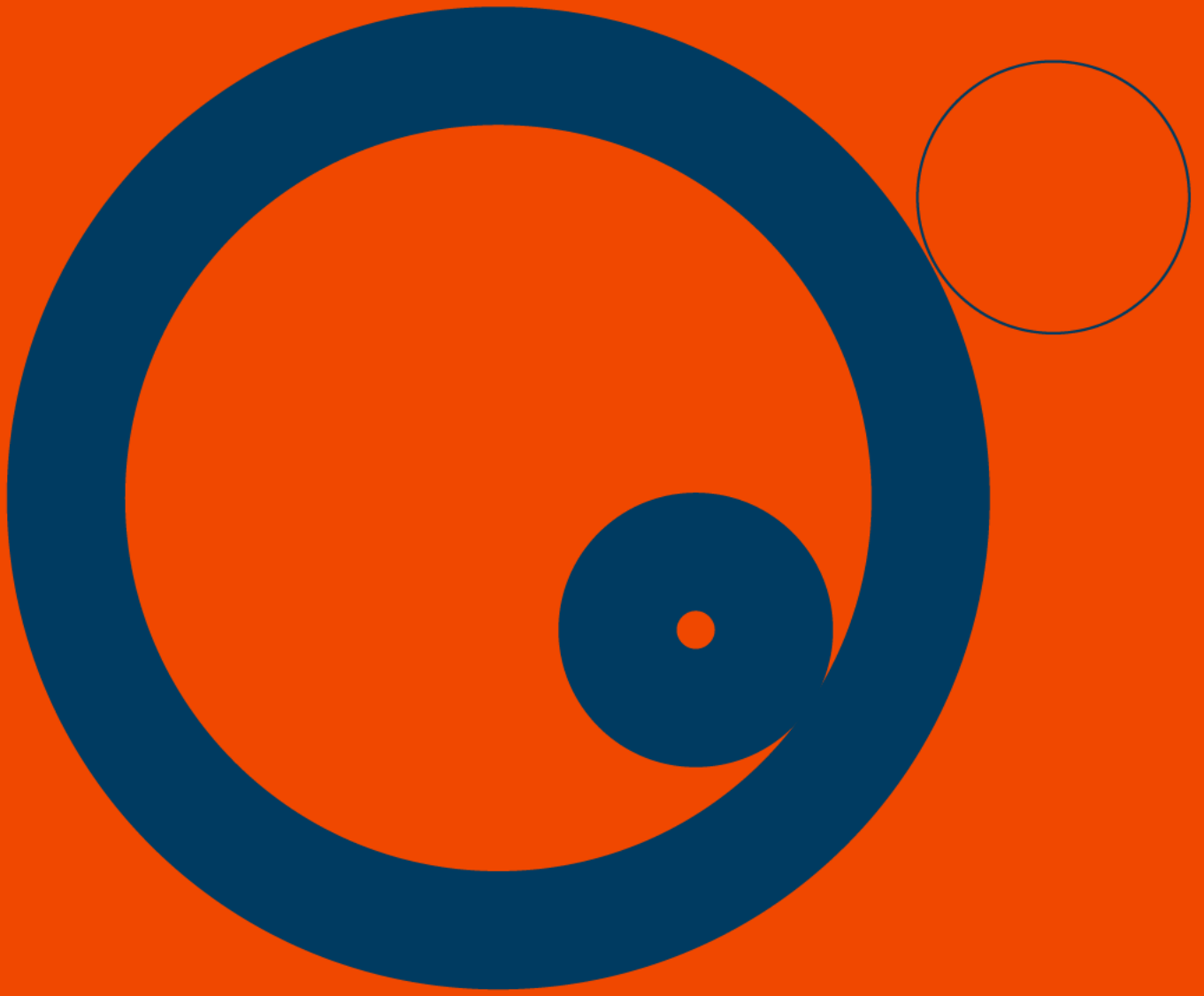
Sandy McGillvary
Area Manager (North)
Marr House
Northfield Industrial Estate
Inverness
IV2 3JJ

SummitSkills
Ian D Stirrat
Operations Manager (Scotland & N. Ireland)
The Walled Garden
Bush Estate
Midlothian
EH26 0SB

Tel. 0131 445 9225

SNIPEF
Duncan Wilson
2 Walker Street
Edinburgh
EH3 7LB

Tel. 0131 225 2255



Futureskills Scotland

Report prepared for CITB-ConstructionSkills by IFF Research Ltd
ISBN 0 905574 74 S

PROJECT PART-FINANCED BY THE EUROPEAN UNION

Europe and Scotland
Making it **work together**