

Workforce Mobility and Skills in the UK Construction Sector

Scotland Report

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Table of Contents

1	Background, Objectives and Methodology.....	1
1.1	Introduction	1
1.2	Key objectives of the research	1
1.3	Methodology	2
1.3.1	Desk research	2
1.3.2	Sampling.....	2
1.3.3	Telephone survey	3
1.3.4	Site visits	3
1.3.5	Challenges.....	3
1.4	Details of sites covered in the research	3
1.5	Structure of the report.....	4
1.6	Notes on tables	4
2	Management Summary	5
2.1	The profile of the workforce.....	5
2.2	Qualifications and skills.....	5
2.3	Mobility.....	6
3	Profile, Work Status and Work Histories of the Construction Workforce	8
3.1	Demographic profile of the sample.....	8
3.2	Work status.....	9
3.3	Occupational profile	10
3.4	Years working in construction	11
3.4.1	Construction employment	11
3.4.2	Occupational switching and progression.....	12
4	Qualifications and Skills	14
4.1	Construction skill cards and certificates	14

4.2	Construction qualifications held	17
4.3	Working towards construction qualifications.....	19
4.4	Managerial qualifications	20
4.5	Summary of qualification and skills card status	21
4.6	Competence/qualification level of the construction workforce	21
4.7	Self Assessment of skill level.....	23
5	Mobility	26
5.1	Worker origin.....	26
5.2	Location of workplace, current and permanent residence.....	28
5.3	Temporary accommodation.....	29
5.4	Proportion of career spent in current location	29
5.5	Travel to work distances	30
5.6	Sub-sector mobility.....	30
5.7	Leaving the industry	32

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1 Background, Objectives and Methodology

1.1 Introduction

ConstructionSkills commissioned BMRB to undertake a survey of construction workers to provide reliable data on the nature of the workforce in the UK and the Republic of Ireland (ROI) with regard to their competence/qualification levels and the extent of occupational and geographic mobility within the workforce. This report presents the results of the survey conducted in Scotland.

A separate technical appendix is available which includes a full technical report and a copy of the questionnaire used.

Where available, results from the 2007 survey have been compared with those from similar previous research conducted by IFF Research in 2004¹.

1.2 Key objectives of the research

The overall aim of the study was to provide reliable data on the nature of the construction workforce in regard to their competence/qualification levels and the extent of occupational and geographic mobility within the workforce. More specifically, the key objectives of the research were to examine:

- the qualification and skill levels of the construction workforce in the UK and ROI
- the extent to which the workforce in each region is constituted of workers originating or living in other parts of the UK (or further afield), and general mobility and travel to work issues
- the nature of the mobile workforce/'imported' workforce in terms of their occupations and their competence/qualification levels
- the scale and extent of occupational mobility within the construction workforce to see how workers in construction occupations change or keep their occupations over time, and related to this the extent to which managers have received training specifically to enhance their managerial skills.

The focus for the survey was on site-based manual occupations, thus excluding associated clerical and sales occupations and professions such as architects, surveyors and engineers.

¹ Comparative findings should be treated as indicative only due to key differences in the types of sites visited in 2004 and 2007. The profile of sites visited showing differences by size and category are included in the technical report.

1.3 Methodology

The key elements of the research approach were as follows:

1.3.1 Desk research

Prior to undertaking primary research a period of exploratory desk-based research was undertaken to examine the scope of information currently available; to identify other surveys and consultations to ascertain what can be learnt from these, and to ensure that any subsequent fieldwork was relevant and informed. The conclusions drawn from the desk research exercise were:

- there are studies covering similar issues to this study, however the target respondents of these studies tended to be employers
- the Labour Force Survey (LFS) is conducted among workers and covers similar issues as this study, however it is not specific to the construction industry
- there is little reliable information on the mobility of workers. The only exception is the LFS but it does not cover certain issues relevant to the construction workforce such as temporary accommodation, or where workers received training
- the desk research confirmed the need for detailed information from construction workers and for more information on workforce mobility in the UK and ROI.

A copy of the presentation summarising the desk research exercise can be found in the technical appendix.

1.3.2 Sampling

For the UK sample a list of current construction projects over £250,000 in value was drawn from Glenigan, an Emap service detailing current and forthcoming construction projects in the UK.

From the projects identified as being eligible for inclusion in the survey (the steps taken to select eligible records from Glenigan are detailed in the technical report), a stratified random sample of 99 postcode districts (e.g. NR2) was drawn to produce a representative sample of locations across the UK. For each selected district six eligible projects were identified. Projects were selected on the basis of value, 35% of sites with a value of less than £1 million and 65% of sites with a value of more than £1 million. In 2004, the survey focused on sites valued at over £1 million and the sampling process aimed to ensure a mix of sites by stage of development (first six months, midway, last six months). In 2007 the requirement was to also sample sites under £1 million, so this criterion needed to be reconsidered in that light. The 2004 definition of stage of development clearly assumed quite large, lengthy projects, appropriate for sites with minimum value of £1 million. With the introduction of smaller sites, some would be completely finished in six months. Therefore it was decided that an appropriate alternative definition would be to select according to value.

Quotas were set on the target number of sites for each region and by value. The target sample profile is described in the technical report.

1.3.3 Telephone survey

A telephone willingness stage was conducted in order to recruit construction projects selected from Glenigan to take part in the research. Interviewers were instructed to identify the best person to speak to about arranging a visit to the construction site and to collect some headline information about the site. Full details of the information collected and number of interviews achieved is included in the technical report.

1.3.4 Site visits

Once permission had been sought to interview at the particular site, the information was forwarded to a local face-to-face interviewer who contacted the site representative to arrange a date to visit. Interviews with construction workers were then conducted face-to-face on site. Interviewing normally took place in a canteen or site office during workers' break periods. In around one in ten cases interviewers were only able to visit the site if they supplied their own personal protective equipment.

A selection of interviewers' experiences of contacting and visiting sites is shown in the technical report.

1.3.5 Challenges

Given the complex nature of this research project a number of challenges arose during the life of the project. Each issue is discussed in detail in the technical report.

1.4 Details of sites covered in the research

The survey results presented in this report are based on fieldwork conducted in Scotland from February to July 2007. This consisted of a total of 240 face-to-face interviews with site based workers obtained across 21 sites.

At the analysis stage, weighting was applied to the data to ensure each nation/region was represented in its correct proportions based on the relative size of the construction workforce. Labour Force Survey figures were used for UK regions/areas, (average profiles from the period October 2006 – June 2007). Unless otherwise stated, with the exception of base totals, the figures in this report are based on weighted data. Weighted, Scotland accounted for approximately 8% of the UK/ROI workforce.

Figures from the site managers interviewed at the telephone fieldwork stage indicated that there were 785 workers across the 21 sites. Using this figure it would appear that around 31% of the potential workforce took part in the research, however it should be noted that there were instances where on the day the site was visited many fewer workers were present than indicated by the site manager when first contacted. This was due to a number of factors, for example the site may have entered into another phase of the project by the time the interviewer was able to visit it.

The proportion of workers interviewed varied greatly, at some sites we interviewed all workers present, on other sites, particularly where interviewing occurred during short break times, only a small proportion of workers were interviewed.

1.5 Structure of the report

The report is structured as follows:

Chapter 1	Background, Objectives and Methodology
Chapter 2	Management Summary
Chapter 3	Profile, Work Status and Work Histories of the Construction Workforce
Chapter 4	Qualification and Skills
Chapter 5	Mobility

A separate technical report has been produced.

1.6 Notes on tables

Where respondents can give multiple responses to a question, the sum of the individual responses may be greater than 100 per cent.

Also the percentages in the tables do not always sum to 100 per cent due to rounding, and where percentages in the text differ to the sum of percentages in the tables, this too will be due to rounding.

An asterisk (*) in a table signifies a percentage that is greater than 0 but less than 0.5.

A dash (-) signifies a cell where data has not been included due to too small a base size.

N/A in a table signifies where we are unable to make a comparison with previous years as either the question wasn't asked or the data wasn't available.

With the exception of base totals the figures referred to are weighted.

The report contains some tables showing findings based on relatively small numbers of respondents (less than 70). Such low base sizes carry a greater risk of these figures being unrepresentative of the population in question and should, therefore, be treated as indicative only. Consistent with the 2004 report, only results based on 15 workers or more have been referenced in either tables or the text.

2 Management Summary

ConstructionSkills commissioned BMRB to undertake a survey of construction workers to provide reliable data on the nature of the workforce in the UK and the Republic of Ireland (ROI) with regard to their competence/qualification levels and the extent of occupational and geographic mobility within the workforce.

The survey results presented in this summary are based on fieldwork conducted in Scotland from February to July 2007. This consisted of a total of 240 face-to-face interviews with construction workers obtained across 21 sites.

This summary highlights the key findings for each of the major themes covered. Where available, results from the 2007 survey have been compared with those from similar previous research conducted by IFF Research in 2004².

Detailed results are available in the body of the full report, and a full technical report is available containing full details of sampling and methodology.

2.1 The profile of the workforce

The profile of workers interviewed in Scotland is broadly similar to the UK/ROI profile and to the regional profile in 2004 in terms of age and gender. Unlike the overall sample, there was no representation of black and minority ethnic (BME) workers, however, although regionally BME groups account for just 1% of the adult population.

Construction workers interviewed in the region were also broadly representative of the overall profile and 2004 regional profile by occupation, with all occupations represented here. It is notable that fewer people in Scotland are self-employed when compared with the overall profile, and almost all workers are employed on a permanent basis.

The workforce is clearly mature, with seven in ten workers in the industry for five or more years and with new entrants (no more than one year's experience) making up just seven per cent.

2.2 Qualifications and skills

The general overview of the workforce in Scotland is that it is trailing other regions in respect of qualifications and little, if any progress has been made on key measures since 2004:

- four in five workers believe they have all the skills they require for their current job, a figure that remains the same amongst those with no qualification and who are not currently working towards a qualification
- at the overall level, three-quarters of the workforce holds some formal qualification or is working towards one – marginally lower than the overall figure

² Comparative findings should be treated as indicative only due to key differences in the types of sites visited in 2004 and 2007. The profile of sites visited showing differences by size and category are included in the technical report.

- just three in five hold a skill card or certificate, which is lower than the UK/ROI average. However, half the workforce holds a CSCS/CSR certificate or card which represents an increase since 2004
- just over half have formal qualifications relevant to construction; in line with the average, but less than in 2004. As seen more generally, there appears to have been a switch towards NVQs/SVQs away from City and Guilds
- despite a shortfall in the numbers of people already holding a qualification or skill card in the region, just one in six people is currently working towards a construction specific qualification. This indicates that workers here are no more likely than others across the UK/ROI to be studying for a new qualification and there has been no change in this regard since 2004
- among the one in five workers who have supervisory or managerial duties, half say they have received relevant training to improve their skill in this area, with half not; in line with the UK/ROI average and the 2004 findings
- just five per cent of workers indicated at least one basic skills area, such as reading, writing, speaking English and maths, they would like to address through training, though just three per cent or less indicated a need in *each* of these areas.

The report comments throughout on differences by age and length of time spent within the industry as demand for training is determined to a large extent by these characteristics. In particular, the data suggests that there is a point at which workers with no relevant qualifications will not seek them out, and by implication that if a worker doesn't obtain a qualification early in their career, they are unlikely to do so later on. This is reflected by the general finding that the youngest age groups are most likely to believe they need more training and qualifications, with little demand amongst workers aged 45+ for construction related training.

2.3 Mobility

One challenge to delivering training to site-based workers is the relatively short period of time that workers stay at one site. In Scotland, however, the findings present a relatively stable picture, both in terms of mobility within and outside the region, and more generally as intent to stay within the industry

- Scotland is one of several geographic areas with a highly self-contained workforce, as over eighty per cent of its workers originate from the region. To reinforce this, almost two-thirds of construction workers in Scotland began their working life in the industry, and almost all said they had spent all or most of their construction career in the region
- just one per cent of workers with a permanent address were working outside their area and only nine per cent were based at a temporary address
- almost half those interviewed expected to be on site for more than six months; ten percentage points higher than across the UK/ROI, and twice the figure in 2004

- just seven per cent of workers aged under 60 think it is unlikely they will be working in the industry in five years time. This is far outweighed by the majority who will definitely, or are very likely to stay in construction.

3 Profile, Work Status and Work Histories of the Construction Workforce

In this chapter we look at the demographic details of the construction workers interviewed in terms of age, ethnicity and gender. We also look at the proportion working directly for a company, self-employed or for an agency, and the extent to which they are working on a permanent or temporary basis. The occupational profile of the sample and career histories are examined in terms of how many years they have worked in construction and the previous roles workers have had within the sector.

3.1 Demographic profile of the sample

The following table shows the demographic profile of our sample of construction workers in Scotland and compares this to the profile in 2004 and the overall workforce interviewed in the survey.

Table 3.1 Demographic profile of the sample			
	Scotland 2007 %	Scotland 2004 %	Overall Workforce (UK/ROI) 2007 %
<i>Age: 16–19</i>	9	18	8
<i>20–24</i>	14		16
<i>25–34</i>	23	24	25
<i>35–44</i>	27	29	25
<i>45–54</i>	16	19	16
<i>55+</i>	10	11	10
<i>Ethnicity: White</i>	100	99	96
<i>Asian</i>	-	1	2
<i>Black</i>	-		1
<i>Other</i>	-		1
<i>Gender: Male</i>	99	99	99
<i>Female</i>	<1	<1	<1
<i>Base: Scotland respondents (2007: 240; 2004: 585); Overall workforce (3,877)</i>			

The age profile of construction workers in Scotland reflects the national profile, with one in four (23%) workers aged under 25 and a similar proportion (25%) aged 45+. As has been noted in the overall UK/ROI report, the construction industry has a much younger profile than is seen in other industries and as such generalised concerns about an aging workforce and the potential loss of skills do not apply as strongly here. There has been no significant change in the age profile of the region since 2004.

The workforce interviewed here was almost entirely male, with just one woman taking part in the survey. This is not particularly notable given that just 16 women were interviewed overall, representing only 0.4% of the UK/ROI sample.

No-one of black minority ethnic (BME) origin took part in the survey. Data from the Labour Force survey (Spring 2007) indicates that 1% of adult Scotland residents are of BME origin, but given the size of this sample we cannot make any inferences as to the representativeness of the Scottish construction workforce.

3.2 Work status

Ninety per cent of respondents in the region said they were employed on a permanent basis and just six per cent were working on a temporary basis.

The vast majority (83%) were employed directly by a company, with just one in eight (13%) self-employed and five per cent (11 people) working for an agency. This differs from the overall UK/ROI profile, which shows more people as self-employed (up 16%) and fewer who are employed directly (down 19%). The proportion of workers interviewed who are employed directly also increased (up 12%) since 2004 with concomitant decreases among the self-employed (down 8%) and agency workers (down 3%).

Table 3.2 Work status							
	Scotland 2007 %	Scotland 2004 %	Overall Workforce (UK/ROI) 2007 %	Years working in construction			
				<1 year %	1-2 %	3-4 %	5+ %
Employed by a company	83	71	64	87	75	97	80
Self-employed	13	21	29	-	15	3	16
Work for an agency	5	8	5	4	10	-	5
Unemployed	-	N/A	1	-	-	-	-

Base: Scotland respondents (2007: 240; 2004: 585); Overall workforce (3,877)

At the national level, there continues to be a notable effect on the level of self-employment by how long people have worked in the industry. Whether the same is true in Scotland cannot be ascertained with any certainty given the small base sizes involved. However, a similar pattern appears to be in evidence in Table 3.2 with no one who has been in the industry less than a year self-employed, compared to one in six of those working for 5+ years.

Base sizes are too small to provide reliable comparisons between most of the individual occupations. Data is provided below for those occupations where there are 15 or more respondents.

- All self-employed respondents 13%
 - Carpenters/Joiners 30%
 - Plant/Machine Operatives 16%
 - Bricklayers 5%
 - Supervisors 5%
 - Labourers 2%.

3.3 Occupational profile

Results showing how workers classified their current role or occupation are shown in Table 3.3 below. This lists those occupations mentioned by 1% or more of sample taken in Scotland in 2007. Comparative data is also provided for the UK/ROI total in 2007 and for the region in 2004.

Table 3.3 Occupational Profile			
	Scotland 2007 % (No.)	Scotland 2004 % (No.)	Overall Workforce (UK/ROI) 2007 % (No.)
Labourer/General Operative	24 (58)	21 (124)	17 (674)
Carpenter/Joiner	19 (46)	19 (114)	14 (559)
Plant/Machine Operative	10 (25)	5 (27)	13 (502)
Supervisor	9 (21)	6 (36)	5 (192)
Bricklayer	8 (19)	7 (41)	13 (536)
Manager	6 (14)	N/A	3 (111)
Plumber	5 (11)	N/A	5 (183)
Roofer	4 (10)	3 (19)	4 (133)
Electrician	4 (9)	5 (30)	7 (247)
Banksman/Banksperson	3 (7)	N/A	2 (81)
Scaffolder	3 (7)	5 (27)	3 (112)
Pipe Fitter	2 (6)	3 (19)	3 (102)
Painter/Decorator	2 (5)	N/A	2 (97)
Plasterer/Dry-liner	2 (5)	N/A	5 (190)
Civil Engineering Operative	1 (3)	N/A	2 (75)
Welder	1 (2)	N/A	1 (34)

Base: Scotland respondents (2007: 240; 2004: 585); Overall workforce (3,877)

The profile of workers interviewed in Scotland is broadly similar to the overall profile, with all occupations represented (if only by one person in some cases). Although it is not possible to

comment on individual trades in detail, of the four occupations accounting for the majority of the overall sample (bricklayers, carpenters, labourers and plant machine operatives) three appear in the top four in the Scottish sample, with bricklayers appearing in fifth place. The 2007 sample comprises a slightly broader representation of trades than in 2004.

3.4 Years working in construction

The majority (69%) of construction workers in the region have been in the industry for five or more years, with over a quarter (28%) having more than 20 years' experience. New entrants, with no more than one years' experience, make up just seven per cent of the workforce, which is slightly less than in the overall sample. There is insufficient data to highlight differences in length of service by occupation type.

Table 3.4 below summarises the workforce profile based on the amount of cumulative time spent in the industry, showing Scotland as very much in line with the UK/ROI profile.

Table 3.4 Years spent working in construction (cumulative)		
	Scotland 2007 %	Overall Workforce (UK/ROI) 2007 %
Less than 6 months	3	5
A year or less	7	11
2 years or less	15	17
5 years or less	33	33
10 years or less	49	50
20 years or less	72	71
More than 20 years	28	27
<i>Base: Scotland respondents (240); Overall workforce (3,877)</i>		

3.4.1 Construction employment

Three in five (62%) construction workers in Scotland began their working life in the industry, which is typical for the UK/ROI.

Across the UK/ROI certain trades appear more likely to attract entrants to the industry immediately after leaving education, while labourers and plant machine operatives tend to come into the industry after starting work in another field. Although base sizes are too small to provide reliable comparisons between most of the individual occupations here, data is provided below for those occupations where there are 15 or more respondents:

- All respondents starting their first job in construction immediately after education 62%
 - Carpenters/Joiners 85%
 - Bricklayers 84%
 - Supervisors 76%

- All respondents whose first job was not in construction 38%
 - Labourers 64%
 - Plant/Machine Operatives 56%.

The 91 respondents whose first job was *not* in construction were asked what their previous job had been. Not surprisingly, a diverse range of occupations was mentioned, and although this list is too broad to include here, there is, generally speaking, a degree of consistency between the types of jobs undertaken previously and the subsequent move to construction.

Since starting their first job in construction, almost all (89%) of those who have had more than one job say they have worked in construction 'pretty much continuously'. Of the rest, just three per cent have worked exclusively in construction, but had spells of being out of work, while eight per cent has dipped in and out, doing other jobs at different times.

Table 3.5 Pattern of working in construction (cumulative)			
	Scotland 2007 %	Scotland 2004 %	Overall Workforce (UK/ROI) 2007 %
Continuously	89	77	79
Exclusively within construction but with spells out of work	3	1	6
Others sorts of jobs	8	12	13

Base: Scotland respondents who have had more than one job 2007 (193); 2004 (unknown); All respondents who had more than one job (3,415)

This is somewhat different to the overall picture for the UK/ROI, with Scotland providing more continuous employment than is seen elsewhere. There also appears to have been a change to working patterns since 2004, with more people now employed continuously (up 12%).

3.4.2 Occupational switching and progression

An area of particular interest in the research was the extent of switching between occupations within construction. To this end workers were asked if they had always worked in their current role/occupation and if not, what their previous occupation had been.

In Scotland, three in five (63%) workers said they had always had the same trade during their time in the construction industry. This is the same as across the UK/ROI, but much lower than reported in 2004 (60% and 81% respectively).

Although base sizes are too small to provide reliable comparisons between most of the individual occupations, data is provided below for those occupations where there are 15 or more respondents:

- All respondents having the same trade throughout their construction career 63%
 - Carpenters/Joiners 85%
 - Bricklayers 84%
 - Labourers 60%
 - Supervisors 48%
 - Plant/Machine Operatives 32%.

4 Qualifications and Skills

A key objective of this research was to measure the competence/qualification levels of the construction workforce. A number of questions were asked to ascertain this:

- whether any construction skill certificate or card was held and if so which and, in the case of CSCS and CSR cards, to what level
- what formal qualifications relevant to the construction industry they held or were working towards, if any
- those with managerial or supervisory duties were asked about any training specifically designed to improve their managerial or supervisory skills or knowledge.

We also asked workers to assess their own skills, including basic skills and whether they felt they needed more training to do their current job.

4.1 Construction skill cards and certificates

There is a general move in the industry for all persons working on, or visiting construction sites to have a construction skill card or certificate. Already, many sites won't let workers on without an appropriate card to prove their skills. And this is set to increase as the industry-wide deadline approaches for a fully qualified workforce by 2010.

Overall, three in five (59%) workers said they hold a skill card or certificate of some description. This is the same as in 2004, and importantly, is considerably lower than the UK/ROI average (68%).

Base sizes are too small to provide reliable comparisons between most of the individual occupations, but data is provided below for those occupations where there are 15 or more respondents:

- All respondents having the same trade throughout their construction career 59%
 - Plant/Machine Operatives 76%
 - Pipe Fitters 69%
 - Labourers 55%
 - Carpenters/Joiners 50%
 - Bricklayers 42%

Table 4.1 shows how possession of a skill card or certificate varies by key demographic variables:

Table 4.1 Whether have a skill card/certificate by other variables			
	Scotland 2007 %	Scotland 2004 %	Overall Workforce (UK/ROI) 2007 %
Overall	59	59	68
<1 year in construction	30	16	39
1–2 years	40	26	60
3–4 years	47	N/A	65
5+ years	67	N/A	75
16–19	23	N/A	43
20–24	41	N/A	62
25–44	67	60	73
45+	66	67	72
Employed directly	62	62	70
Self-employed	47	55	69
Agency worker	-	41	62

Base: Scotland respondents (2007: 240; 2004: 585); Overall workforce (3,877)

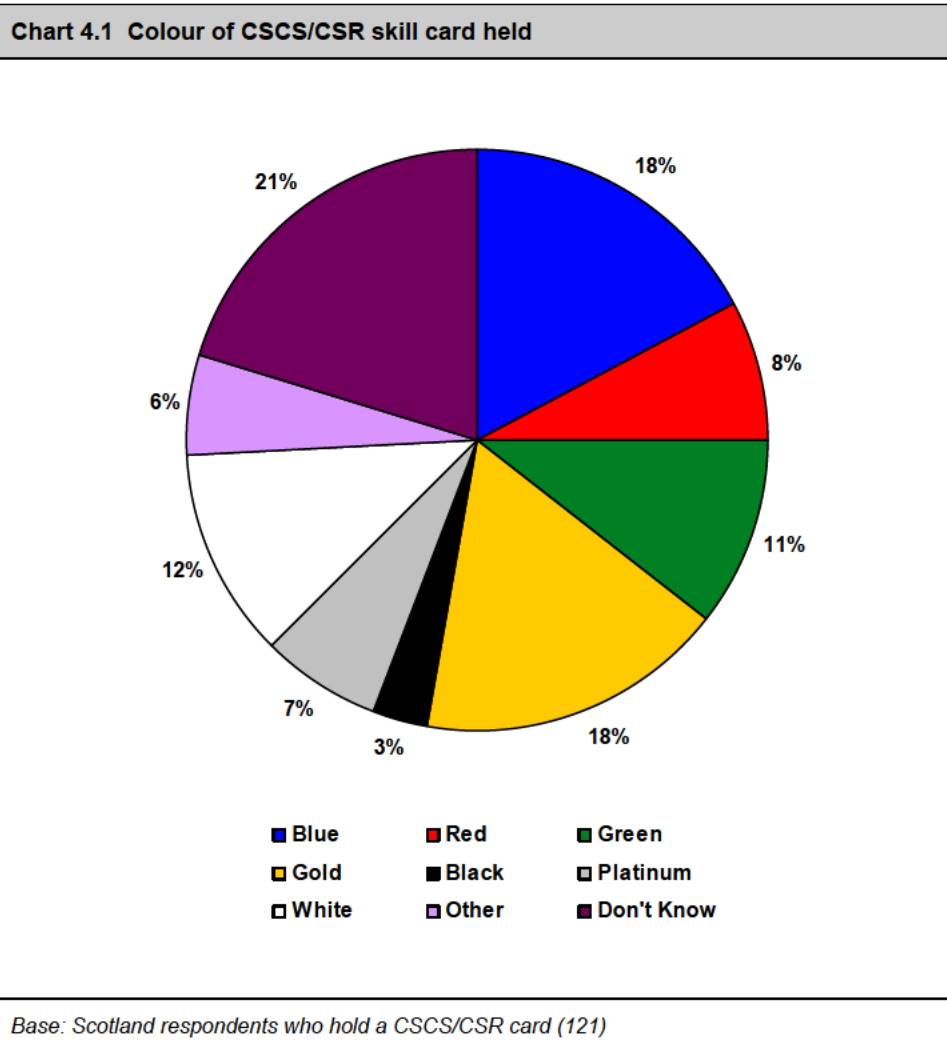
Young workers, aged 16–19 are far less likely to have a skills card than their older colleagues, with those aged 25+ most likely to hold one (67%). As seen across the UK/ROI, workers in the least experienced (<1 year in construction) group are least likely to hold a card or certificate, with likelihood of holding a card increasing with time spent in the industry.

Looking at the regional workforce as a whole, i.e. including those who do not hold any certificate or card, half (50%) holds a CSCS/CSR certificate or card, an increase of 17 percentage points since 2004. This figure is also in line with the UK/ROI average (55%) although other regions perform significantly better; Northern Ireland (79%), Wales (71%), East of England (70%). What is notable, however, is that while a further 15% has a CPCS (Construction Plant Competence Scheme) card, few are in possession of other trade-specific or other certificates. Two in five (41%) workers do not have any card.

The 121 workers who said they have a CSCS/CSR card were also asked its colour level, and the top six (10 or more responses) were as follows:

- 18% Gold – craft/supervisor card NVQ/SVQ Level 3 or industry accreditation grade B
- 13% Blue – skilled NVQ/SVQ Level 2 or industry accreditation grade A
- 12% White
- 11% Green – construction site operative card for general site workers
- 8% Red – trainee registered for an NVQ/SVQ
- 7% Platinum – manager card for NVQ/SVQ Level 4 or industry accreditation.

Despite saying they held a CSCS/CSR card, one in five (21%) were not sure what colour or level it was. Chart 4.1 shows the proportions of card-holders with each colour of card.



4.2 Construction qualifications held

Workers were also asked what other formal qualifications relevant to construction they held (excluding first aid certificates). As a relatively high proportion (10% in Scotland; 8% overall) did not give an answer to this question, results in this section are based on those who gave an answer. In Scotland, just over half (53%) the workers who gave a response have such a qualification; broadly in line with the average for the UK/ROI.

Table 4.2 Hold any construction specific qualification			
	Scotland 2007 %	Scotland 2004 %	Overall Workforce (UK/ROI) 2007 %
Overall	53	64	48
< 1 year in construction	-	18	15
1–2 years	41	32	30
3–4 years	41	N/A	39
5+ years	61	N/A	57
16–19	18	N/A	30
20–24	52	N/A	40
25–44	63	67	54
45+	47	70	50
Employed directly	53	63	48
Self-employed	63	69	54
Agency worker	-	61	30
<i>Base: Scotland respondents who gave a response 2007 (216); All Scotland respondents 2004 (585); All UK/ROI respondents who gave response (3,594)</i>			

There is a notable increase in the proportion of qualified workers as they become more experienced, increasing from two in five working 1–2 years to three in five among those working for five or more years (41% to 61% respectively). Age is also an important indicator, with just one in five (18%) workers aged 16–19 already with a qualification. Between the ages of 20–24, the proportion qualified jumps to 52% and reaches a peak (63%) between the ages of 25–44. This data suggests that there is a point at which workers with no relevant qualifications will not seek them out, and by implication that if a worker doesn't obtain a qualification early in their career, they are unlikely to do so later on.

Again, small bases preclude detailed analysis by occupation, but data is provided below for those occupations where there are 15 or more respondents:

- All respondents having the same trade throughout their construction career 53%
 - Carpenters/ Joiners 73%
 - Bricklayers 63%
 - Supervisors 60%
 - Plant/Machine Operatives 43%
 - Labourers 30%.

Workers who said they had a construction qualification were asked what type of qualification they held. Where more than one response was given the highest qualification was recorded.

Table 4.3 Main type of highest qualification held			
	Scotland 2007 %	Scotland 2004 %	Overall Workforce (UK/ROI) 2007 %
NVQ/SVQ	55	18	51
City and Guilds	27	45	34
Construction Award	4	6	2
Degree	4	N/A	1
Apprenticeship	3	9	4
HNC/HND/BTEC higher	2	3	1

Base: Scotland respondents with qualification (2007: 114, 2004: 373); All UK/ROI respondents who gave response (1,810)

In Scotland, just over half (55%) of those with a qualification have an NVQ/SVQ, which is typical across the UK/ROI. The proportion with a City and Guilds is slightly lower (27% vs. 34%), but attainment of other qualifications is again typical.

As seen across the UK/ROI, there has been a significant switch towards NVQs/SVQs away from City and Guilds, with more than twice as many people holding City and Guilds than NVQs/SVQs when the survey was conducted in 2004 (45% vs. 18% respectively).

The vast majority (84%) of those with a formal construction qualification attained it whilst living in Scotland. Most of the remainder qualified in the North West (5%), North East (3%) and London (3%). Four per cent (six people) qualified overseas.

4.3 Working towards construction qualifications

One in six (16%) construction workers in Scotland said they are currently working towards a qualification that is specific to the construction industry. This is the same as reported for the region in 2004 and across the UK/ROI in 2007.

Table 4.4 Working towards a construction specific qualification			
	Scotland 2007 %	Scotland 2004 %	Overall Workforce (UK/ROI) 2007 %
Overall	16	16	17
<1 year in construction	30	20	28
1–2 years	15	47	32
3–4 years	47	N/A	36
5+ years	8	N/A	11
16–19	50	78	47
20–24	38		27
25+	8	12	12
<i>Base: Scotland respondents (2007: 240; 2004: 585); Overall workforce (3,877)</i>			

As we see elsewhere, the proportion studying falls by age, with half of 16–19 year olds studying compared with two in five (38%) of those aged 20–24 and just eight per cent of those aged 25+. These findings reflect the pattern seen across the UK/ROI. The pattern by length of time in the industry is more erratic, though it is clear that the very few people embark on a course of study after five years in the industry.

Two-thirds (64%) of people who are studying for a qualification (Base 39) are working towards an NVQ/SVQ. Just one person each mentioned City and Guilds and an apprenticeship.

4.4 Managerial qualifications

A further area of investigation in relation to training and qualifications was to look at the extent to which workers with managerial or supervisory duties have had training specifically designed to improve their skills in this area.

One in five (22%) respondents said they had supervisory or managerial duties on site at the time of the survey – 52 people in all. Almost all had spent at least five years in the industry, although five people had been in construction for less time. Three in five of these (62%; 32 people) described themselves as either managers or supervisors.

Half of these workers with managerial or supervisory duties (52%) said they had not received any relevant training to improve their skill in this area. This is in line with the proportion seen across the UK/ROI and compares to just a third (36%) in 2004. Amongst the other half who have received some training, most accessed in-house training (27%), and one in six (17%) have had 'Site Manager Training Scheme' training. Others have accessed a range of accredited, industry recognised programmes.

The types of training undertaken by at least one respondent are shown in Table 4.5. Percentages and base sizes (in brackets) are shown for 2007.

Table 4.5 Type of training received to improve management or supervisory skills			
	Scotland 2007 % (No.)	Scotland 2004 %	Overall Workforce (UK/ROI) 2007 %
None/can't remember	52 (27)	36	47
In-house training	27 (14)	40	31
SMSTS (Site Manager Safety Training Scheme)	17 (9)	N/A	8
CITB training	8 (4)	N/A	3
Site Safety Supervisors Course (for CSR)	6 (3)	N/A	7
Chargehand and Team Leader Training	4 (2)	4	10
Assessor and Verifier Training	4 (2)	N/A	5
Project management short courses	4 (2)	1	3
Civil engineering Site Managers Scheme	2 (1)	N/A	3
CIOB Site Management Education and Training Scheme (SMETS)	2 (1)	2	2
IOSH Managing Safely for Construction Managers	2 (1)	N/A	3
NVQ/SVQ Level 4 in Construction Site Management	2 (1)	N/A	1

Base: All with management and supervisory duties Scotland (2007: 52, 2004: 142); All UK/ROI respondents who gave response (678)

4.5 Summary of qualification and skills card status

Table 4.6 summarises the extent to which the workforce has attained and/or is working towards relevant qualifications and skill cards/certificates. The results for Scotland are compared with the regional results in 2004 and the overall results in 2007.

Table 4.6 Qualification status			
	Scotland 2007 %	Scotland 2004 %	Overall Workforce (UK/ROI) 2007 %
Hold a formal construction qualification or a skills card/certificate or working towards a qualification	77	83	82
Hold a formal construction qualification or a skills card/certificate	73	79	78
Hold a skills card/certificate	59	59	68
Hold a skills card/certificate but no other construction qualification	26	16	33
Working towards a qualification	16	16	17
<i>Base: Scotland respondents (2007: 240; 2004: 585); Overall workforce (3,877)</i>			

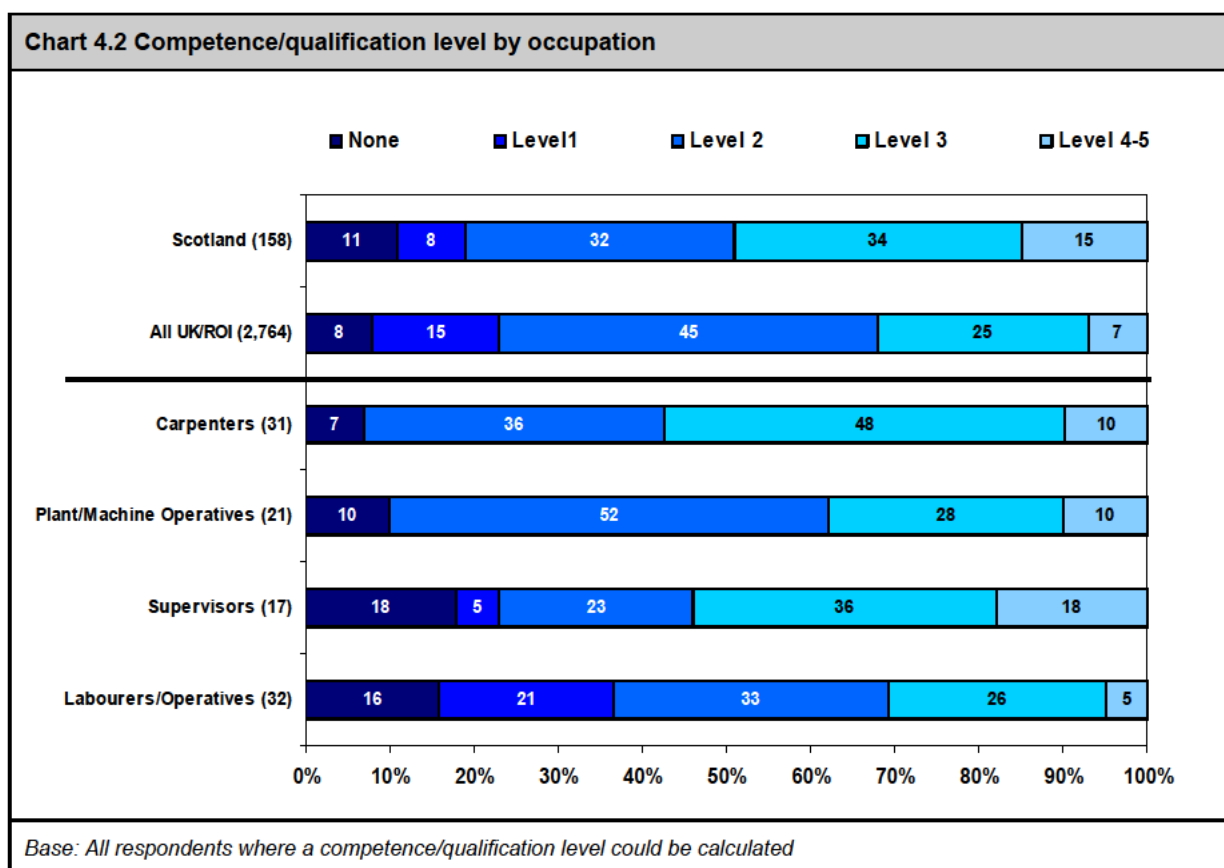
Although the majority (77%) of the workforce holds some formal qualification or is working towards one, findings are generally less positive than noted across the UK/ROI. The level of attainment also appears to have dipped slightly from that reported in 2004, with no change in the level of those holding a skills card or certificate.

4.6 Competence/qualification level of the construction workforce

Using the responses given by workers for qualifications and skill cards/certificates held and managerial training undertaken, the highest competence/qualification level achieved has been derived for each worker. The technical report shows the definitions of each level, which are largely the same as those used in the 2004 survey³.

³ In 2004 Green CSCS and CSR cards were categorised as Level 2, in 2007 they were categorised as Level 1.

Chart 4.2 shows the results overall, and by occupation where base size allows.



Just over one in ten (11%) construction workers in Scotland has no qualification, management training or skill card/certificate. This is slightly higher than across the UK/ROI; on the other hand, workers in Scotland are much more likely than the UK/ROI average to possess a competence/qualification level of 3 or above, with half (49%) doing so compared with a third (32%) of the UK/ROI workforce overall.

Within occupation, labourers were more likely than average to have either no qualifications or only have level 1 (37%). Supervisors were also more likely than average to have no competence/qualification level, but were also more likely than average to have reached competence/qualification level 3 or higher (53%), as were carpenters (57%).

4.7 Self Assessment of skill level

Workers' own perceptions as to whether they have all the skills they need to do their current job were ascertained after they were asked about the various qualifications they held or were working towards. Table 4.7 summarises the results.

Table 4.7 Self assessment of skill level and training needs for current job			
	Scotland 2007 %	No qualification/ nor working towards any 2007 %	Overall Workforce (UK/ROI) 2007 %
Have all the skills needed for current job	80	80	76
Need more training or qualifications	10	12	13
Need more experience	10	8	8
Don't know	-	-	3
<i>Base: Scotland respondents (240); No qualification nor working towards any (98); Overall workforce (3,877)</i>			

Four in five (80%) of workers believe they have all the skills they require for their current job. Interestingly, there is no notable difference of opinion amongst those with no qualification and who are not currently working towards one which has, by contrast, been noted at the overall UK/ROI level.

Ten per cent of workers identified a personal need for more training or qualifications, and the same proportion believed they simply needed more experience. As would be expected, the youngest age groups are most likely to believe they need more training and qualifications, with over two-thirds of those aged 16–19 saying they need more experience or more training (45% and 23% respectively). Amongst the 20–24 year old age group demand falls significantly, with a quarter requiring more experience and 15% requesting more training. By contrast there is very little demand for either training or experience amongst workers aged 45+ (9%, five people).

All respondents were also asked whether they felt that training in basic skills, such as reading, writing, speaking English and maths, would help them with their work. Just five per cent (13 people) indicated at least one basic skills area they would like to address, and broadly, fewer than ten people indicated each of these areas as shown in the bracketed figures in the second column of the table.

Table 4.8 Need for training in basic skills			
	Scotland 2007 %	All identifying a need 2007 No.	Overall Workforce (UK/ROI) 2007 %
Any need identified	5	13	21
Maths	3	7	10
Speaking English	3	7	12
Reading	1	2	12
Writing	1	2	10
<i>Base 2007: Scotland respondents (240); All identifying a training need (13); Overall workforce (3,877)</i>			
<i>NB: A comparison is not provided for the regional 2004 data due to a significant change to the question wording this year.</i>			

Demand for this type of basic skills training is lower in the region than across the UK/ROI (5% vs. 21% overall). It is not possible to make further comparisons between groups.

Another source of employee driven demand for training could potentially come from those wishing to change occupation within the sector. In Scotland, as nationally, around one in ten (10%) workers said they would like to change the kind of work they do, whilst remaining in the construction industry.

There is insufficient data to draw conclusions about the type of worker wanting to change jobs, but many (38%) of those who would change (Base = 25) would like to switch to a managerial or supervisory role. Of the remainder, all the preferred roles identified are skilled occupations, but only two-thirds (64%) identify a need for further training and qualifications to equip them for this new role. This represents approximately 9% of the total Scottish construction workforce.

The main reasons given for wanting to change occupation (at least five respondents) are as follows:

- Better pay – 60%
- More interesting work – 40%
- Need a change/Bored – 32%
- Less physical – 20%
- More security – 20%
- More suitable hours/conditions - 20%.

One challenge to delivering training to site-based workers is the relatively short period of time that workers stay at one site, as well as the uncertainty that exists around how long the work will last. The following table indicates how much time workers in Scotland expect to spend at their current site and how this compares with the national picture.

Table 4.9 Total length of time expect to work at site		
	Scotland 2007 %	Overall Workforce (UK/ROI) 2007 %
<1 month	5	11
1-3 months	17	20
>3 up to 6 months	15	16
>6 months up to a year	27	17
More than a year	17	20
Don't know	19	17
<i>Base: Scotland respondents (240); Overall workforce (3,877)</i>		

In Scotland, almost half (44%) the workforce expects to be on site for more than six months; higher than reported across the UK/ROI and almost twice as many when compared to expectations in 2004 (37% and 20% respectively). Workers now also seem to be more informed about their commitment, with just 19% saying they don't know how much longer they will be on site, compared to well over a third (37%) in 2004.

5 Mobility

A key aim of the survey is to gain an understanding of geographic mobility of construction workers and to try to get a measure of which regions are net 'importers' and which are net 'exporters'. Another aim is to identify which types of workers (for example, by occupation and competence/qualification level) are particularly likely to be mobile. The results from this analysis clearly have a bearing on training planning, provision and investment.

What constitutes a mobile worker is not straightforward. Potentially it includes those who live outside a region and travel in on a daily basis, those who live in temporary accommodation while working but whose permanent address is outside the region, those who have moved to the area on a semi-permanent basis, as well as those who received their construction training elsewhere but have now moved to the region on a permanent basis. Hence for the survey a number of questions were asked covering these issues. These were:

- where respondents were from originally
- whether they travel from their permanent address or a temporary address (and if temporary why they work in the current region)
- the proportion of their time working in construction which has been on sites within the region where they are currently working
- the miles they travel to get to the site each day
- whether when they finish this site they expect to get a job which allows them to commute on a daily basis from their permanent address.

These areas are discussed in turn. In the last section we also look at how long workers are typically based at an individual site to give some idea of the frequency of moving between sites. Clearly workers may have spent their whole working life in one region and therefore appear relatively immobile, but if they move site frequently, providing training to these workers could be problematic.

5.1 Worker origin

Workers were asked where they were from originally. As a measure of mobility clearly this is very broad, since people may have moved to a region on a permanent basis and done so many years ago for reasons other than their work. That said there are still some interesting differences between regions as far as importing and exporting workers is concerned which are shown in table 5.1.

Table 5.1 Where from originally/international and inter-region movement

Where from originally	Where currently working												
	NI %	NE %	Scot %	Wales %	NW %	Y&H %	WM %	ROI %	EM %	SW %	EE %	SE %	Lon %
Northern Ireland	92	*	-	2	1	-	*	*	1	*	1	1	1
North East	*	84	4	1	*	5	2	*	1	1	1	1	1
Scotland	1	1	84	*	*	1	1	*	1	1	-	*	1
Wales	-	*	-	79	3	1	1	-	2	5	*	2	1
North West	*	1	4	2	74	5	2	-	2	8	1	1	1
Yorkshire and Humber	*	4	2	-	4	74	2	1	9	3	1	1	1
West Midlands	*	-	1	1	11	-	70	-	7	7	1	3	*
Republic of Ireland	2	*	-	1	1	2	5	67	2	2	5	5	5
East Midlands	*	*	*	1	1	6	7	-	65	4	2	2	1
South West	-	1	-	7	-	*	3	-	1	60	2	4	*
East of England	1	4	-	-	*	3	1	*	2	2	57	7	9
South East	-	1	-	1	*	1	1	*	2	8	6	49	15
London	-	*	1	1	*	*	1	*	1	3	13	12	33
Outside UK and ROI	2	1	2	4	-	1	3	29	2	1	8	8	22

Base: All respondents: (3,877)

NB: Dark shading denotes proportion of workers in region originally from that nation/region. Scotland workers are also shaded (light).

Scotland is one of several geographic areas with a highly self-contained workforce – as shown in the chart, the vast majority (84%) of its construction workers originate from the region, with inward migration coming mainly from the North East and North West (both 4%). Only Northern Ireland is more static (92%).

Almost all (94%) construction workers interviewed in the region said they had lived in the UK/ROI all their life, which is significantly higher than the average (85%). Fewer than ten people who were interviewed came from countries outside the UK/ROI.

5.2 Location of workplace, current and permanent residence

All respondents were asked where they were living to get to their current place of work, whether this was their permanent address and, if not, where their permanent address was.

Table 5.2 presents results for *all* regions showing:

- the percentage of workers whose **permanent** residence is in the same nation/region as their current work
- the percentage of workers currently living in the same nation/region as their current work.

In each instance the corresponding percentages resident in different regions are shown to the left and the percentages resident in neighbouring regions to the right. The results from the 2004 survey are also included for comparison.

Region of establishment	Region of permanent residence						Region of current residence					
	% from different nation/region		% from same nation/region		% from neighbouring nation/regions		% from different nation/region		% from same nation/region		% from neighbouring nation/regions	
	2007	2004	2007	2004	2007	2004	2007	2004	2007	2004	2007	2004
Northern Ireland	1	0.5	99	99.5	-	-	0.5	0.5	99.5	99.5	-	-
Scotland	8	2	92	98	4	1	1	1	99	99	-	1
North East	9	5	91	95	6	4	8	4	92	96	5	3
West Midlands	13	11	87	89	10	10	7	10	93	90	7	9
Wales	13	10	87	90	7	5	12	8	88	92	7	4
Yorkshire and Humber	16	12	84	88	15	10	12	8	88	92	11	8
East of England	20	32	80	68	17	27	18	30	82	70	15	28
North West	12	19	82	81	15	17	18	13	82	87	15	12
South West	22	13	78	87	13	8	17	8	83	92	11	5
East Midlands	23	25	77	75	20	18	22	20	78	80	20	16
London	32	43	68	57	30	25	30	29	70	71	30	26
South East	32	27	68	73	24	23	31	21	69	79	25	21

Base: All respondents (2007: 3,877; 2004: 8,436)

Scotland draws the majority (92%) of its workforce from workers permanently resident in the region – a situation that has not changed notably since 2004.

Table 5.3 shows the percentage of construction workers working outside the nation/region where they have a permanent residence.

Table 5.3 Percentage working outside their nation/region of permanent or current residence		
Region of permanent address	Permanent 2007 %	Permanent 2004 %
West Midlands	31	27
London	30	35
East Midlands	28	43
East of England	28	29
South East	20	12
Yorkshire and Humber	18	22
North East	16	21
Wales	16	18
South West	15	27
North West	9	15
Northern Ireland	4	2
Scotland	1	8
All	18	21
<i>Base: All respondents (2007: 3,877; 2004: 8,436)</i>		

In Scotland, as highlighted in the table, just one per cent of those with a permanent address in the region are working on sites outside the region. This is very much lower than the UK/ROI average and slightly lower than the 2004 regional figure (8%).

5.3 Temporary accommodation

While clearly not everyone based in temporary accommodation will necessarily be ‘imported’ workers (some may also have a permanent address within the nation/region), this group is a proxy for the highly mobile workforce and as such constitutes another measure of mobility.

In Scotland, nine per cent (22 people) of workers were based at a temporary address. This was wholly among workers employed on a permanent basis and the majority were people who had been in the industry 5+ years and were aged between 25–59. There was no predominant occupation represented here, with a broad range in evidence.

5.4 Proportion of career spent in current location

Workers were asked what proportion of the time they had worked in construction in the UK/ROI had been spent on sites in the nation/region where they were currently working.

Table 5.4 Proportion of construction career spent in current region			
	Scotland 2007 %	Scotland 2004 %	Overall Workforce (UK/ROI) 2007 %
All of it	68	66	43
Most of it	18	26	33
Around half	5	4	9
Small proportion	6	3	8
Only this job	2	N/A	3
Don't know	-	N/A	3

Base: Scotland respondents (2007: 240; 2004: 585); Overall workforce (3,877)

Over four in five (86%) workers in Scotland said they had spent all or most of their construction career in the region, with just one in nine (11%) indicating a higher degree of mobility. This indicates a more static workforce in the region than across the UK/ROI in general.

5.5 Travel to work distances

The average number of miles travelled to work (each way) by workers in the region at the time of the survey was 15 miles; less than in 2004 (18.5 miles) and than the national average of 24 miles. The median distance is 10 miles (across the UK/ROI median is 17 miles).

A third (35%) of workers reported travelling less than five miles, half (49%) less than 10 miles, and four in five (80%) travelled less than 25 miles. Just three per cent said they were travelling over 50 miles each way to work, which compares with 10% nationally.

5.6 Sub-sector mobility

All respondents were asked whether they had spent significant parts of their construction career on any of the following types of project: new housing; housing repair and maintenance; commercial work such as shops, offices, pubs etc.; private industrial such as warehousing, land reclamation etc.; public non-housing such as schools, landscaping etc. and infrastructure such as road, tunnel etc. Results are summarised in table 5.5⁴.

⁴ Results are not directly comparable with 2004 on this measure as a different number and definition of types of projects was used in 2004.

Table 5.5 Type of projects spent significant periods of construction career on		
	Scotland 2007 %	Overall Workforce (UK/ROI) 2007 %
New housing	79	73
Public non-housing	62	44
Housing repair and maintenance	52	38
Commercial work	43	43
Infrastructure	41	21
Private industrial	40	33
One type of project only	23	34
Two types of project only	20	19
Three types of project only	12	15
Four types of project only	19	12
Five types of project only	14	11
Worked on all six types of project	12	6
<i>Base: Scotland respondents (2007: 240; 2004: 585); Overall workforce (3,877)</i>		

Scotland bucks the UK/ROI trend, with almost half (45%) its workers having experienced at least four types of project compared with just over a quarter (29%) of workers across the UK/ROI.

As elsewhere, new housing is the dominant sub sector (79%) and accounts for almost two-thirds (62%) of the projects undertaken by those people who have only worked in one sub sector. However, with the exception of commercial work, all project types are more evident in Scotland than across the UK/ROI in general.

Results vary by age and length of time in the industry as we have seen elsewhere in this report. For example, while seven in ten (70%) of those who have been in the industry for a year or less have worked on just one project, experience broadens over time such that six in ten (60%) workers who have been in the industry 5+ years have worked on four or more projects. A similar relationship is seen when considering different age groups, with those aged 16–19 most likely to have worked on just one type of project (41%) and those aged 45+ most likely to have worked on four or more projects (53%).

Small base sizes preclude detailed analysis by individual occupations.

5.7 Leaving the industry

A final measure of mobility is the anticipated outflow from the workforce, i.e. those leaving the industry. The results for workers aged below 60 are shown in table 5.6.

Table 5.6 Likelihood of working in construction in five years time			
	Scotland 2007 %	Scotland 2004 %	Overall Workforce (UK/ROI) 2007 %
Definitely will	46	56	44
Very likely	32	30	32
Quite likely	10	6	10
Quite unlikely	2	<1	2
Very unlikely	2	2	2
Definitely will not	1	4	2
Hope to be retired	2	N/A	2
Don't know	4	1	6

Base: Scotland workers aged under 60 (2007: 233; 2004: 564); All respondents aged under 60 (3,686)

Just five per cent of workers aged under 60 think it is unlikely they will be working in the industry in five years time. This is far outweighed by the majority (78%) who say they will definitely, or are very likely, to stay in construction, presenting a very stable picture for the industry within the region. This figure is lower than reported in 2004, however, when over four in five (86%) workers were certain about staying, but it is in line with the average for the UK/ROI as a whole.

No further conclusions can be drawn in relation to individual sub-groups.