



**Workforce Mobility and Skills in
the UK Construction Sector 2012
for**

CITB-ConstructionSkills

by

Babcock Research

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Workforce Mobility and Skills in the UK Construction Sector 2012

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1 EXECUTIVE SUMMARY

CITB-ConstructionSkills commissioned Babcock Research to undertake the 2012 Construction Workforce Mobility Survey. The 2012 research builds on previous Mobility surveys conducted in 2005 and 2007.

Face-to-face interviews were conducted with 4,933 construction workers undertaking manual roles on sites across the UK. At least 400 interviews were conducted per region/nation.

PROFILE OF THE SAMPLE

As expected, the vast majority of construction workers in manual roles interviewed were male (99.3%).

The youngest workers (16-24 year olds) account for almost two in ten (18%) of the construction workers surveyed in 2012. The lower proportion of under-25s interviewed in 2012 compared with 2007 highlights the impact of the economic downturn on the recruitment of school/college leavers to the sector.

Three in ten interviewees (29.4%) were aged between 25 and 34; 23.8% aged 35-44 years; 17.9% aged 45-54 years, and workers aged 55+ account for one in ten (9.9%) interviewees.

The majority (94.9%) of construction workers interviewed were of White origins: 82.5% described themselves as White British; 5.3% as White Irish, and 7.0% as 'White other'. Workers of black/minority ethnic (BME) origin made up 3.1% of the sample: 1.7% Black, and 1.4% Asian: a very similar profile to the 2007 survey. BME representation appears to be lowest in the North East, North West and Yorkshire & Humber regions, and highest in the East of England and West Midlands.

The most common occupation of interviewees was labourer/general operative (a very broad SOC category, encompassing many roles, including groundworkers): nearly a quarter (22.4%) of workers. Other common job roles were carpenters/joiner (13.2%); bricklayer (10.1%); and electrician (8.2%).

Almost half (47.5%) are directly employed by a company and a similar proportion are self-employed (46.0%): this shows considerable movement from employment to self-employment since 2007, when the figures were 64% and 29% respectively. The proportion of workers employed by an agency is only slightly higher than in 2007 (6.5% compared with 5%).

WORK HISTORY

Time in the Sector

One in five (21%) workers had no more than 5 years of construction experience, including 8.5% with less than 2 years' experience. Three workers in ten (29.9%) had in excess of 20 years' experience working in construction.

Agency workers tend to have fewer years of construction experience than other workers, but not dramatically so: a fifth (21.4%) of agency workers have at least 20 years of construction experience.

Self-employed workers tend to have a few more years' experience than those employed directly, but 16.6% of the self-employed have been working in construction for no longer than 5 years.

Two thirds (68.9%) of those surveyed had never worked outside of the construction industry (mostly without periods of unemployment, although 7.0% said that they had experienced periods out of work).

Previous Non-Construction Jobs

Almost a quarter (23.3%) started work in another sector immediately after leaving full-time education and before moving into work in construction (significantly lower than the 38% reported in 2007).

Agency workers are the most likely to have started work in another sector: 30.0% compared with 25.0% for those employed by a company, and 20.5% for the self-employed.

The most common jobs cited by those who had had a job in a different industry after leaving learning before moving into construction were:

- Vehicle trades

- Sales assistants/retail cashiers
- Food preparation and hospitality
- Elementary storage
- Protective service occupations

Occupational Switching Within the Construction Sector

Overall, 21.7% of workers had undertaken more than one type of construction occupation.

Interviewees revealed both movement between the occupation groups that might be considered to be progression of skills or sideward movements, and in order to remain in employment, some workers had taken 'backwards' steps into labouring/general operative roles, or returned to a previous trade.

The occupations most likely to have switched roles in the industry are:

- Banksman
- Ceiling fixer
- Plant/machine operative
- Dryliner
- Welder
- Plasterer.

QUALIFICATIONS & SKILLS

Skills Cards / Certificates

The large majority (97.3%) of construction workers interviewed in this survey were clear that they held at least one of the recognised skills cards/certificates. The proportion of construction workers holding a skill card/certificate has increased dramatically since 2007 (68%), suggesting that it is now a prerequisite of employment on most sites.

Construction-Specific Qualifications

Two thirds (65.0%) of construction workers reported holding a construction-specific qualification.

Agency workers are significantly less likely than average to have a construction qualification (46.9%) compared to both those who are employed (66.3%) and those who are self-employed (66.2%). Migrant workers are also less likely than average to hold a construction qualification (47.7%).

Plumbers, electricians, carpenters/joiners, and bricklayers and are the occupations that are most likely to report having a construction-specific qualification (89.0%, 88.9%, 85.8% and 80.3% respectively). For most of the occupation groups in the lower likelihood, between half and two thirds reported having a construction-related qualification. The lowest incidence of self-declared construction qualifications (other than test certificates required to get CSCS cards or to operate machinery on site) was among floorers, banksmen, steel erectors/riggers, roofers and general operative/labourers (all below 58%).

In 2012, seven out of ten workers (71.3%) with a construction-related qualification reported that their main qualification was an NVQ/SVQ: this equates to a third (32.6%) of all construction workers. A further 17.4% of those with qualifications (7.8% overall) had a City and Guilds qualification as their main construction qualification.

Just over a third (35.0%) of construction workers did not have a construction related qualification. A relatively low proportion (4.5%) of construction workers are qualified to level 1 only. The majority have either a level 2 (32.7%) or a level 3 (19.7%) qualification. Fewer than 5% of all manual workers are qualified to level 4. One in twenty (5.3%) stated that they had a construction qualification, but did not provide enough information for that to be equated to an NVQ level.

Basic Skill Needs

Workers' self-assessed need for training in basic skills has remained roughly static between 2007 and 2012, with around one in five of the whole workforce stating that they require training in one or more basic skill (19.7% and 21% respectively).

There are a number of specific occupational groups who are more likely to report that they could benefit from some sort of basic skills training: window fitters/glaziers (33.9%), banksmen (28.0%) and roofers (25.3%).

Current Study for Qualifications

Just one in ten (10.5%) workers said that they were working towards additional

construction qualifications at the time of the interview compared with 17% in 2007. This reduction may be indicative of a slow-down in recruitment of new workers

A small proportion of interviewees (2.3%) reported that they were unsure whether or not they were working towards a qualification or not.

A higher than average rate of current learning activity can be seen amongst a range of groups including:

- Workers who are 'new' to the sector: 1 year (26.4%) and 1-2 years (35.4%).
- Younger workers: 16-19 years (55.7%) and 20-24 years (19.5%).
- Those who are directly employed by a company (13.7%).
- Workers in the South West region (15.4%).
- Certain trades: electricians (21.5%), window fitters (20.7%) and scaffolders (19.4%).

Supervisory/Managerial Training

The proportion of construction supervisors/managers in partially manual roles that had received some sort of formal training for staff supervision had increased dramatically since the previous survey (71.0% in 2012 compared to 53% in 2007).

Not only are more workers in supervisory roles receiving training, but fewer report that the training is in-house. Therefore there is evidence of the sector increasingly investing in external training courses, including those with recognised certification. Receipt of in-house training decreased from 31% in 2007 to 23.6% in 2012, and on chargehand/team leader training decreased from 10% to 6.9%.

GEOGRAPHIC MOBILITY

Work History in the Region/Nation

All workers were asked why they were working in the area in which they were interviewed. Two fifths (42.3%) gave an answer relating to family reasons: either that they grew up in the area/had lived there all/most of their lives, or that they have moved to the area to follow family or a partner.

An almost equal proportion (40.0%) said that their employer had sent them there: these were predominantly direct employees, or self-employed workers who worked exclusively for one company as if they were directly employed by them.

Just over one in ten (11.6%) said there were more jobs available in that area than where they had lived/worked in the past. One in ten (9.6%) stated that they preferred living in that region/nation.

One in three (33.0%) had worked in the same region/nation for their entire construction career, a lower proportion than in 2007. A further third (35.9%) have worked in the current region/nation for most of their construction career.

Worker Origins

Workers were asked in which region/nation they were living just before they got their first job in construction in the UK (or whether they moved from outside the UK). Overall, 5.7% of UK construction workers in this survey were originally from outside the UK: fewer than 2% were from the Republic of Ireland, and most of the remainder were from outside the EU, predominantly Eastern Europe. The number of migrant workers from beyond the UK and ROI has halved since the last survey in 2007.

Inter-Regional/National Mobility

Two thirds (65.8%) of workers were interviewed on construction sites in the same region/nation in which they were living when they started working in the construction sector.

Regions/nations with the most stable workforces (i.e. importing the lowest proportions of workers) are Northern Ireland, Wales, the North East, Scotland and Yorkshire & Humber. Regions with the highest levels of construction workers imported from beyond the region are the more buoyant areas of southern England (London, East of England and the South East).

Great variation can be seen between regions/nations in the proportion of construction workers reporting that they were working in the same region/nation in

which they acquired their first construction qualification as they were when interviewed, from 97.8% (Northern Ireland) down to 45.5% (South East).

Travel to Site

The South East and London regions 'import' the greatest proportion of construction workers (39.2% and 37.4% respectively). However, both import the majority of their workers from neighbouring regions, including each other. The East of England, West Midlands and East Midlands are also significant importers of labour, in each case at least three workers in every ten. Wales, Scotland and Northern Ireland have lower levels of labour inflow.

One in twenty (5.7%) construction workers in the UK reported that they were staying in temporary accommodation. Surprisingly, the greatest proportion was working in the West Midlands: one in ten (11%) workers on West Midland sites reported staying in temporary accommodation.

The average (mean) distance from workers' homes to their current site was 35 miles, compared to a median of 21 miles.

When the reduced distance from temporary accommodation to site was taken into account, construction workers were travelling an average (mean) of 28 miles each way, or a median journey of 20 miles.

Around a quarter (26%) of workers live within 19 miles of the site on which they are currently working; 30% live between 20 and 49 miles away; another 28% live between 50 and 99 miles away (often travelling daily) and 17% live 100+ miles from the current site.

Site Duration and Change

When asked about the length of time they expected to remain on site, almost a quarter (23.2%) of interviewees did not expect to continue to work on site for more than another month, including 7.1% that expected to change site within the next week, in some cases, the next day. Two fifths (41.9%) anticipated continuing on the same site during that phase for more than

a month, but no more than a year, and 14.6% expected to remain on the same construction site for another year or longer.

One in five (20.3%) felt that they could not predict how much longer they would be working on the same site, that their agency or employer could send them elsewhere (or end their contract) at any time.

Seven out of ten workers (69.0%) were fairly confident that their next site (after the interview location) would be within daily commuting distance. Just one in twenty (4.5%) said that their next site would most likely require them to use temporary accommodation.

Three in ten of those who were confident that their next job would take them away from home overnight, did not know in which region/nation of the UK their next construction site would be located.

SUB-SECTOR & SECTOR MOBILITY

Sub-Sector Mobility

The majority (74.9%) of workers have spent significant periods of time on more than one type of construction work. In fact, 15.3% have worked on all six types of project the survey asked about. The least frequently experienced type of construction was infrastructure projects such as road/rail/aviation or utilities builds. Even so, more than one in three workers had spent time on this type of project.

Leaving the Sector

Those aged 59 years or younger were asked how likely it was that they would still want to work in construction (rather than another sector) in five years' time. One in three (31.2%) said that they definitely would want to remain in the sector, and a further 29.1% felt that they were very likely to. Just 7.5% said that they either definitely would not or would be very unlikely to want to.

2 INTRODUCTION

CITB-ConstructionSkills commissioned Babcock Research to undertake a UK-wide mobility survey of construction workers, closely mirroring surveys conducted in 2007 and 2004.

2.1 Aims and Objectives

The aim of this survey was to provide a reliable evidence base of the nature of the construction workforce in the UK concerning its qualification levels and the extent of occupational and geographic mobility. The survey findings have the potential to provide a common currency for skills planning, particularly in respect of profiling the existing workforce and offering insight into where gaps might emerge as a result of occupational/geographic movement.

The specific objectives of this research project were to:

- Examine the qualification levels of the construction industry workforce in the UK and analyse what part qualifications have played in career progression.
- Identify, quantify and analyse the extent to which the workforce in each region/geographical area comprises workers originating or living in other parts of the UK (or further afield), and mobility and travel to work.
- Examine the occupations and qualification levels of the mobile workforce / 'imported' workforce.
- Examine 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, both within construction and as they move out of the industry, and related to this the extent to which managers and supervisors have received any training specifically to enhance their managerial skills.
- Contribute to developing better methodologies for understanding and modelling the labour market impacts of workforce mobility.

The focus of the survey is on site-based manual occupations, thus excluded associated clerical and sales occupations and professionals such as architects, surveyors and office-based managers.

2.2 Methodological Overview

The 2012 Construction Workforce Mobility Survey followed a similar methodology to that used in the last wave of this research (2007). 4,800 interviews with construction workers in manual roles across the UK were required, equally split between the 12 standard regions/nations.

2.2.1 Sampling

This sub-section provides an overview of the sampling methodology employed for the 2012 Construction Workforce Mobility Survey: further detail is provided in the technical report that accompanies this analytical report.

Although this survey focuses on the mobility of individual workers, the sampling strategy was to select construction projects (generally referred to in this report as 'sites') with sufficient workers on-site each day to enable a minimum of 10 interviews. This site-based approach was employed to ensure cost-effective face-to-face interviewing, comparable to that use for the 2007 survey.

As in previous surveys, the commercially produced 'Glenigan' database of construction projects was used as the sampling frame: Quarter 4 2011 was used for the pilot sample, and the main-stage sample was extracted from Quarter 1 2012 (produced in January 2012).

Project eligibility criteria:

- Value: £250,000+
- Contact stage : 'start on site'; 'contract awarded' or 'bills called' only
- Site start date / end date: Active throughout planned fieldwork period.

120 sampling points (clusters of postcodes) were selected to produce a broadly representative sample of locations across the UK. Within each of the 12 regions/nations of the UK, 10 locations were selected, with the ultimate goal of 400 interviews per region/nation.

For each sampling point, approximately 20 sites were extracted from Glenigan. Sites were numbered within each sampling point to produce a hierarchy for recruitment, rippling out from the 'core' point (postcode sector – e.g. YO9 W). Where possible, recruitment was restricted to the first 10 sites drawn.

Quotas were set for the target number of sites per region/nation, with an allowance for large projects (according to the average number of workers on site) to count as 'double', or exceptionally 'triple' sites.

2.2.2 Telephone-Based Site Recruitment

Babcock Research's telephone research team recruited sites that were eligible and willing to support the research by allowing an interviewer to visit the site to interview at least 10 workers in manual trades/roles. A recruitment questionnaire (reproduced in the technical report) was used to check eligibility of the site, and to collect important operational information that would be required by the interviewer visiting the site. The majority of recruitment was undertaken with individual site managers, but in a number of cases the recruiters also spoke with local, regional or national managers (often dependant upon the size of the company).

2.2.3 Site Visits – Face-to-Face Interviewing

Once permission had been granted for an interviewing visit, the completed recruitment questionnaire was forwarded to the appropriate local field interviewer, who contacted the designated site representative to arrange a date and time for the interviewing visit. In the majority of cases, interviewers were allocated space to conduct interviews in the offices or canteen area. However, on some sites interviewers worked 'on-the-hoof' in active parts of the site (with or without a 'chaperone'). All interviewers had completed the CSCS Health & Safety Test for Operatives immediately prior to fieldwork and had a PPE (Personal Protective Equipment) kit to comply with site requirements.

While one-to-one interviewing was preferable, a variety of data collection approaches were used in response to the operational demands of sites. Frequently interviewers were asked to interview pairs or small groups of workers (to reduce down-time for the site). In other situations workers (especially large groups) may have self-completed the questionnaires, either with the interviewer reading out the questions and workers marking their answers, or workers fully self-completing with the interviewer available to clarify the meaning of questions etc as required.

Further detail on the interviewing process is provided in the technical report. A copy of the questionnaire is provided as Appendix 1, and the Showcards are provided as Appendix 2.

2.3 Sites Included

The following table shows the distribution of sites and number of interviews achieved in each region/nation. In order to obtain strong bases for regional/national analysis, a quota of 400 completed questionnaires per region/nation was set. However, at the analysis stage weighting factors were applied to survey data to ensure that for national analysis, regions/nations were represented in their correct proportions according to the size of the construction workforce according to the LFS.¹

Figure 1: Sites, Number of Interviews, and Weights by Region/Nation

	Number of sites	Interviews	Av interviews per site	Weighted profile (%)
East Midlands	30	408	13.6	7.1
East of England	30	407	13.6	10.5
London	21	410	19.5	13.3
North East	26	394	15.2	3.6
North West	24	442	18.4	9.8
Northern Ireland	14	406	29.0	2.9
Scotland	25	409	16.4	8.4
South East	32	420	13.1	15.0
South West	24	407	17.0	8.8
Wales	22	428	19.5	4.6
West Midlands	16	403	25.2	8.4
Yorkshire & Humber	29	399	13.8	7.7
UK	293	4933	16.8	100

Sites with a minimum of 10 workers expected on site were recruited: just 5 sites of the minimum size were recruited (Figure 2). Almost half of the sites recruited were expected to have between 11 and 25 workers on site most days (including sub-contractor personnel).

Figure 2: Estimated Number of Workers on Site by Number of Interviews

Base: All sites

	Number of Sites	Average Number of Interviews
10	5	12.2
11-25	134	12.7
26-50	84	17.1
51-99	42	22.7
100-200	25	23.8
201+	3	62.3
Total	293	16.8

¹ Labour Market Statistics Data Tables (Excel Spreadsheets), May 2012 - JOBS04 Workforce jobs by area & industry <http://www.ons.gov.uk/ons/rel/lms/labour-market-statistics/may-2012/index-of-data-tables.html#tab-Jobs-tables>

Twenty eight sites were visited that had in excess of 100 workers on site each day, including 3 sites with more than 200 workers per day. Especially on the smaller projects, the interviewing day was arranged to provide the greatest number of available interviewees. In some cases, the estimates provided by managers appeared to relate to peak days or other phases of activity, and hence on some sites, it was not possible to conduct as many interviews as targeted because the number of workers on site fell short of expectations.

Although a target was set of at least 12 interviews per site, where site managers were agreeable and numbers of workers was high enough, it was agreed that the target could be doubled or, in certain cases, tripled. On average 16.8 interviews were achieved at each location.

Using the estimated number of workers provided by site managers, we calculate that approximately 13,700 construction workers would have been available to invite to participate in the survey. Hence we interviewed approximately 35% of the workforce of the selected sites.

Almost half of sites included in the survey were housing related (either new build developments or repair and maintenance programmes for public housing/housing associations) – 143 sites out of 293 visited across the UK. Public non-housing projects accounted for almost a third of the sites visited, and private commercial build sites accounted for around one in ten of the sites included. Relatively few infrastructure projects and private industrial builds were included: 11 and 12 sites respectively.

Figure 3: Construction Sub-Sector of Sites

Base: All sites

	Number of Sites	Number of Interviews
Housing (inc public repair)	143	2289
Public non-housing	93	1699
Private commercial	34	542
Infrastructure	11	224
Private industrial	12	179
Total	293	4933

2.4 About this Report

A number of conventions have been employed within this report to assist with the concise presentation of numeric data, and with brevity within text.

The base for statistics is described under each figure (table or graph) heading, with the base counts (weighted and unweighted) on dedicated rows of tables. Where tables include statistics on many different bases, the unweighted bases for 2012 data are shown in brackets.

All tables and graphs present percentages (unless otherwise stated) calculated upon the bases shown. Where ‘mean’ averages are shown, these are calculated upon the stated base, minus any responses ‘not stated’ or choosing a ‘don’t know/not applicable’ response.

Tables and graphs are all labelled with a simple sequential ‘Figure Number’ and title. All tables and graphs have clearly labelled base sizes (for all sub-groups) and textual definitions



of bases. The total of percentages shown in a table may vary slightly from 100% due to rounding to the nearest percentage point.

'**' is used to denote a statistic of less than 0.5%.

'-' is used to denote data suppressed from a table due to a small base size.

Analysis by region/nation should be read with caution, particularly those on bases further restricted by the routing out of some respondents. Both weighted and unweighted bases are shown throughout for guidance. Consistent with previous Construction Mobility surveys, the minimum sub-group size shown in their report is findings based on 15 workers. However, we recommend caution is used when interpreting findings based on fewer than 70 workers, due to the greater risk of these figures being unrepresentative of the population in question.

Glossary of Terms

ACE card	Assuring Competence in Engineering Construction (administered by the Engineering Construction Industry Training Board)
CISRS	Construction Industry Scaffolders Record Scheme
CPCS	Construction Plant Competence Scheme
CSCS	Construction Skills Certification Scheme (Great Britain)
CSR	Construction Skills Register (Northern Ireland)
CTA	Certificate of Training Achievement (plant operators)
Direct employment	Employed by the company/organisation, on payroll at the location
IPAF PAL card	International Powered Access Federation - Powered Access Licence
LFS	Labour Force Survey
Gas Safe Register	Gas Safe Register replaced CORGI as the gas registration body in Great Britain and Isle of Man on 1 April 2009 and Northern Ireland and Guernsey on 1 April 2010.
National Qualifications Framework	The National Qualifications Framework sets out the level at which a qualification can be recognised in England, Wales and Northern Ireland
NVQ	National Vocational Qualification
PASMA	Prefabricated Access Suppliers' and Manufacturers' Association
PPE	Personal Protective Equipment
ROI	Republic of Ireland
SIC	Standard Industrial Classification
SOC	Standard Occupational Classification
SVQ	Scottish Vocational Qualification

Region/Nation Names and Abbreviations

EE – East of England	SC / Scot – Scotland
EM – East Midlands	SE – South East
GL – Greater London	SW – South West
NE – North East	WA – Wales
NI – Northern Ireland	WM – West Midlands
NW – North West	Y&H – Yorkshire and Humber

3 PROFILE OF CONSTRUCTION SITE WORKERS

This section will provide a profile of the construction site workers interviewed.

- Personal demographics: age, ethnicity and gender
- Current occupation
- Employment status: employed by a company; self-employed; agency
- Employment contract basis: permanent or temporary/fixed term.

The section then moves on to examine career histories:

- Number of years in the construction industry
- First industrial sector of employment
- Pre-construction sector employment histories
- Occupational switching and progression within construction.

3.1 Personal Demographics

As expected, the vast majority of construction workers in manual roles interviewed were male (99.3%). Male dominance is greater in the survey sample than in the UK construction workforce as a whole (89.0% male)², as this survey does not include those in office-based roles within the construction industry (either administrative or professional, where the incidence of female workers is higher) and interviews were conducted on relatively large construction sites (valued at £250,000+, with at least 10 workers), thereby excluding female construction workers on small building sites and maintenance and repair (especially for residential properties). The UK workforce as a whole (across all sectors) has a more equal gender split with 53.5% of the workforce being male and 46.5% being female.

Figures 4 & 5 detail the demographic profile (age and ethnicity) of the 2012 sample of construction workers, presenting comparative data from the 2007 survey and statistics available from the Labour Force Survey; other official statistics for the construction workforce in the UK; and the UK workforce as a whole. Further breakdowns are presented in Appendix Tables 1 & 2.

Figure 4: Age Profile of the Sample Compared with the Labour Force

Base: All respondents

	ALL 2012	ALL 2007		UK [†] workforce
Unweighted Base	4,933	3,877		28,343,000
Weighted Base	4,800	3,877		
	%	%		%
16 - 19	3.5	8	16-17	1.2
20 - 24	14.5	16	18-24	11.6
25 - 34	29.4	25	25-34	23.3
35 - 44	23.8	25	35-49	37.7
45 - 54	17.9	16	49-64	26.2
55+	9.9	10		

† A05: Labour market status (employment, unemployment and inactivity) by age group. – Labour Force Survey. May 2012

The youngest workers (16-24 year olds) account for almost two in ten (18%) of the construction workers surveyed in 2012: including 3.5% of interviewees who were aged 16 to

² EMP13: Employment by industry - Labour Force Survey, May 2012, <http://www.ons.gov.uk/ons/rel/lms/labour-market-statistics/may-2012/index-of-data-tables.html#tab-Employment-tables>

19). The lower proportion of under-25s interviewed in 2012 compared with 2007 highlights the impact of the economic downturn on the recruitment of school/college leavers to the sector.

Three in ten interviewees (29.4%) were aged between 25 and 34; but the percentage of workers in older age bands decreases slightly with increasing age: 35-44 year olds accounting for 23.8% of the sample; 45-54 year olds accounting for 17.9% and workers aged 55+ accounting for one in ten (9.9%) interviewees.

The physical nature of construction roles does support a younger workforce profile than many industries (and data presented in Section 6.2 will discuss workers' plans to leave the industry) yet we also note that there has been a reduction in recruitment of younger workers, which some fear many result in a net loss of skills, as older skilled workers are leaving the industry without having passed their skills and knowledge on to many in the 16-25 age band.

The majority (94.9%) of construction workers interviewed were of White origins. Appendix Table 2 shows that 82.5% described themselves as White British; 5.3% as White Irish, and 7.0% as 'White other' (a group of workers that were more likely to be employed via an agency, or self-employed, and less likely to have formal construction qualifications).

Figure 5: Ethnic Profile of the Sample Compared with the Labour Force

Base: All respondents

	ALL 2012	ALL 2007	Population 16-64/59 [†]
Unweighted Base	4,933	3,877	28,343,000
Weighted Base	4,800	3,877	
	%	%	%
White	94.9	96	86.7
Black	1.7	2	1.2
Asian	1.4	1	6.6
Other/not stated	0.9	1	5.5

[†] Mid-Year Population Estimates for England & Wales – Table EE2

Workers of black/minority ethnic (BME) origin made up 3.1% of the sample: 1.7% Black, and 1.4% Asian: a very similar profile to the 2007 survey.

Figure 6 (over the page) shows the distribution of BME workers in the 2012 sample compared to that of the 2007 survey, and compared to the UK resident BME adult population. BME workers are under-represented in construction compared to the resident population of the UK. Some variation can be seen between regions: compared with the resident population, representation appears to be lowest in the North East, North West and Yorkshire & Humber regions, and highest in the East of England and West Midlands.

Figure 6: Proportion of Construction Workforce of BME (Non-White) Origin

Base: All respondents

	BME 2012	BME 2007	Nation/region's resident BME population (16-64) [†]
Unweighted Base	4,933	3,877	4,620,700
Weighted Base	4,800	3,877	N/A
	%	%	%
UK	3.9	3	11.6
East Midlands	2.4	2	10.2
East of England	4.2	3	7.8
Greater London	11.6	10	36.3
North East	*	*	4.4
North West	1.7	1	8.8
Northern Ireland	*	0	1.4
Scotland	1.2	0	3.6
South East	3.1	3	8.3
South West	1.2	2	3.5
Wales	*	1	3.8
West Midlands	8.7	7	15.0
Yorkshire & Humber	1.4	4	9.3

† Source: Annual Population Survey, Jan 2010 – Dec 2010 (Ethnic Group by Age); <http://www.nomisweb.co.uk>

3.2 Occupational Profile

Workers were asked what their current MAIN trade or occupation was at the site on which they were interviewed. It is acknowledged that even on the largest construction sites, it is common for many workers to perform more than one of the roles listed in the survey: in these cases, workers were asked to define the main role they were undertaking (which in many cases would be the most skilled one). Those in supervisory roles were asked to reveal their trade/occupation background, as their supervisory responsibilities would be explored in later questions. In most cases a trade was established, but where no further information was forthcoming than 'supervisor'; 'foreman'; or 'chargehand', the broad categorisation of 'labourer/general operative' was used. Figure 7 (over the page) shows how workers classified their current role or occupation.

The 2012 results are compared with those from 2007. The most recently available data from the Labour Force Survey (April - June 2011) has also been provided as a comparison against the UK as whole. It is not always possible to have a direct comparison as some occupations named in the research are covered by more generic titles in the Labour Force Survey.

The most common occupation of interviewees was Labourer/General Operative (a very broad SOC category, encompassing many roles within construction, including groundworkers): nearly a quarter (22.4%) of workers. It should also be noted that where insufficient information was available to categorise an 'other' job role description provided by an interviewee, it was necessary to define them as 'labourer/general operative'. Other common job roles were Carpenter/Joiner (13.2%); Bricklayer (10.1%); and Electrician (8.2%).

Figure 7: Occupational Profile

Base: All respondents

	Survey 2012		Survey 2007	Construction Industry [†]
Unweighted Base	4,933	4,933	3,877	2,055,000
Weighted Base	4,800	N/A	3,877	N/A
	%	n	%	%
Labourer / General op	22.4	1106	17	4.1
Carpenter / Joiner	13.2	637	14	10.6
Bricklayer	10.1	524	13	3.6
Electrician	8.2	422	7	13.5
Plant/Machine operative	2.5	115	13	7.4
Plumber (inc heating & air con)	1.9	90	5	9.2
Roofer	4.0	185	4	2.1
Scaffolder	4.0	198	3	1.5
Dryliner	3.7	181	With plasterer	Not shown on LFS
Painter and decorator	3.7	187	2	5.7
Technical (e.g. Surveyor, Maintenance Tech)	2.6	114	1	Not shown on LFS
Steel erector / Rigger	2.6	113	2	0.6
Plasterer	2.5	142	5	2.8
Pipe fitter	2.4	116	3	0.7
Banksman	1.7	80	2	Not shown on LFS
Floorer	1.3	63	1	2.0
Ceiling fixer	1.2	57	1	Not shown on LFS
Window fitter / glazier	1.2	58	-	2.2
Welder	0.6	32	1	2.7
Mechanical fitter	0.6	30	*	Not shown on LFS
Site manager	0.6	25	3	Not shown on LFS
Other	*	9	N/A	N/A
	100	4933	100	100

[†] Source: Labour Force Survey, EMP16: ALL IN EMPLOYMENT BY STATUS, OCCUPATION & SEX, Quarter 2 (Apr - Jun) 2011) <http://www.ons.gov.uk/ons/rel/lms/labour-market-statistics/may-2012/index-of-data-tables.html#tab-Employment-tables>
NOTE: The 2007 survey also had 5% listed as 'supervisor' without information about core skilled/trade.

Almost half (47.5%) are directly employed by a company and a similar proportion are self-employed (46.0%): this shows considerable movement from employment to self-employment since 2007, when the figures were 64% and 29% respectively. The proportion of workers employed by an agency is only slightly higher than in 2007 (6.5% compared with 5%). See Figure 8 for data on workers' employment status.

The data appears to show that construction companies have increasingly sought ways of employing workers flexibly, but have favoured the use of self-employed labour to paying fees to agencies. The introduction of the Agency Workers Regulations 2010 from October 2011 gave equal pay and working conditions to agency workers as the hirer's permanent employees in comparable roles (after 12 weeks), thereby reducing further the attractiveness of agency workers as medium-term workers.

Figure 8: Employment Status

Base: All respondents

	2012	2007	Years working in construction			
			< 1	1-2	3-4	5+
	ALL	ALL	< 1	1-2	3-4	5+
	%	%	%	%	%	%
Unweighted Base	4,933	3,877	177	216	342	4175
Weighted Base	4,800	3,877	181	228	360	4006
	%	%	%	%	%	%
Employed by a company	47.5	64	55.3	55.0	49.6	46.6
Self-employed	46.0	29	30.7	27.9	40.7	48.1
Work for an agency	6.5	5	13.4	16.6	9.7	5.2
Other (e.g.) placement	*	N/A	0.6	*	*	*
Unemployed (ROI)	N/A	1	N/A	N/A	N/A	N/A
Total	100	100	100	100	100	100

The number of years a worker has spent in the construction industry has a significant effect on the likelihood of self-employment. Just over a quarter (27.9%) of workers who have been in the industry for 1-2 years are self-employed, compared to nearly half (48.1%) of those who have been in the industry for 5 or more years. Figure 8 also shows that people who have spent less time in the industry (up to 2 years) are more likely to be employed by an agency than those with longer employment histories (3 years plus).

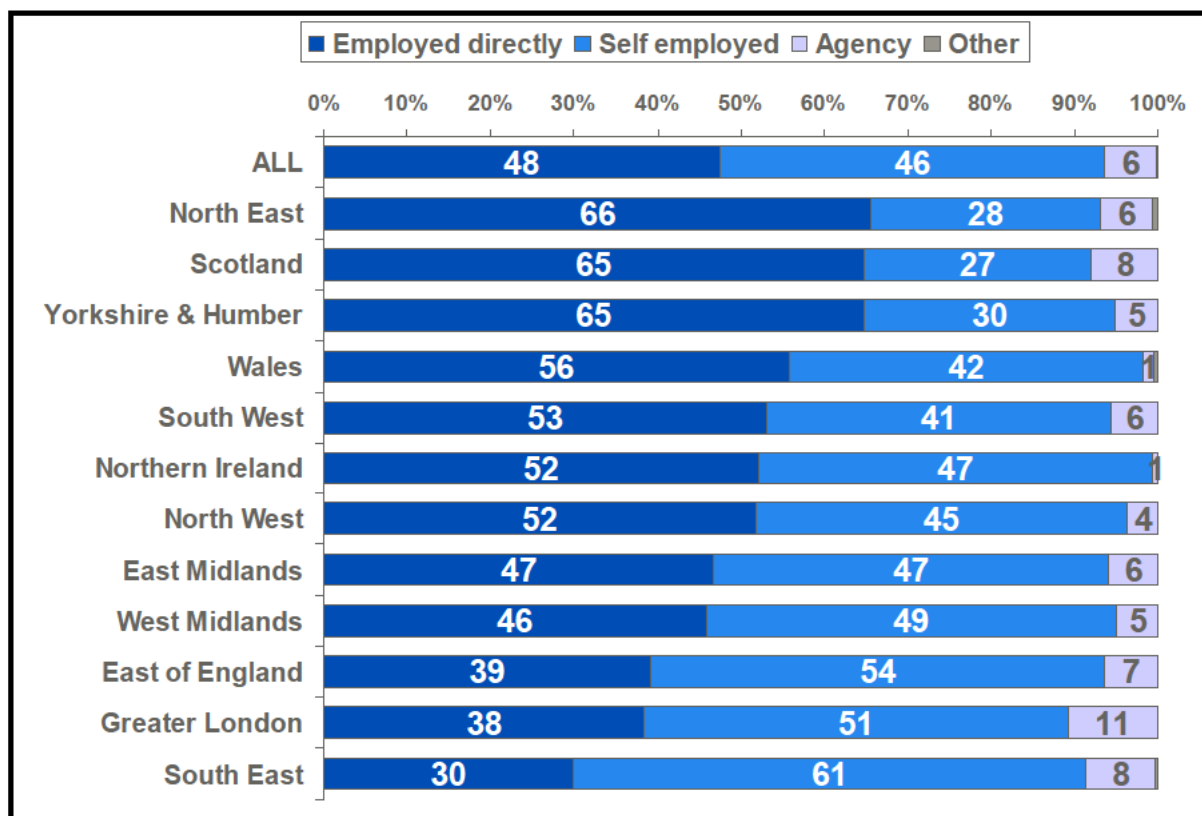
Geographical variations in employment status are shown in Figure 9. Two thirds of workers in the North East, Scotland and Yorkshire & Humber regions are employed directly by a company.

Particularly high levels of self-employment are seen in the South East (61%); the East of England (54%); and Greater London (51%).

Employment agencies provide the lowest proportion of construction labour in Wales and Northern Ireland, but more than one in ten workers (11%) on sites in Greater London.

Figure 9: Employment Status by Region/Nation

Base: All respondents



3.3 Work Histories

A key focus of this survey is to explore the routes that new recruits followed to enter the construction industry, as well as to examine whether people enter the industry for a short period, or do other jobs in between construction employment. Another aim is to examine, at occupational level, the extent to which workers change occupations within the industry.

This section looks at:

- Time spent in the industry
- Pre-construction employment histories
- Occupational switching and progression
- Employment contract basis: permanent or temporary/fixed term.

3.3.1 Time in the Sector

The cumulative proportions of workers who have been employed in construction for various lengths of time are shown in Figure 10 below. One in five (21%) workers had no more than 5 years of construction experience, including 8.5% with less than 2 years' experience. Three workers in ten (29.9%) had in excess of 20 years' experience working in construction.

A significant difference can be seen between the length of time worked in the construction sector in 2012 and 2007, with far fewer 'new' entrants to the sector in 2012. The slow-down in recruitment to the construction sector (perhaps compounded by movement out of the sector) is a persistent issue (see Figure 10). Although a third (33%) of those interviewed in

2007 had a maximum of five years' construction experience, in 2012 this proportion had fallen to just a fifth (21%).

Figure 10: Years Spent Working in the Construction Sector (Cumulative)

Base: All respondents

	2012	2007
Unweighted Base	4,933	3,877
Weighted Base	4,800	3,877
	%	%
Less than 6 months	1.2	5
Up to 1 year	3.7	11
Up to 2 years	8.5	17
Up to 5 years	21.0	33
Up to 10 years	43.8	50
Up to 20 years	69.0	71
More than 20 years	29.9	27

Agency workers tend to have fewer years of construction experience than other workers, but not dramatically so: a fifth (21.4%) of agency workers have at least 20 years of construction experience.

Self-employed workers tend to have a few more years' experience than those employed directly, but 16.6% of the self-employed have been working in construction for no longer than 5 years. Some companies predominantly use self-employed labour, perhaps offering permanent contracts to supervisors who manage sub-contracting teams.

3.3.2 Pre-Construction Employment Histories

More than two thirds (68.9%) of those surveyed had never worked outside of the construction industry (mostly without periods of unemployment, although 7.0% said that they had experienced periods out of work, but had not turned to other sectors). Fewer than one in ten (7.9%) had started their working lives in construction, but had also taken employment in other sectors during their careers.

Almost a quarter (23.3%) started work in another sector immediately after leaving full-time education and before moving into work in construction at a later date (significantly lower than the 38% reported in 2007).

While age has a small influence on the likelihood of having worked in another sector before construction (21.5% of 16-34 year olds and 25.0% of those aged 35+), number of years in construction shows a stronger relationship, thereby suggesting that the sector is still attractive to career switchers. Almost two fifths (38.5%) of workers with less than 1 year's experience in construction have previously worked in another industry, compared with 30.4% of those with 1-2 years' experience; 24.7% of those with 3-4 years' experience and 22.1% of those with 5+ years in the sector.

Agency workers are the most likely to have started work in another sector: 30.0% compared with 25.0% for those employed by a company, and 20.5% for the self-employed. Construction workers with the highest levels of construction-related qualifications are the least likely to have switched sector: only 11.6% of those qualified to NVQ/SVQ level 4 or higher began work in another sector; 15.0% of those at level 3; 22.7% of those at level 2, and 28.0% of those only qualified to level 1 in construction related skills.

Small variations are evident between regions/nations. Just 7.1% of Northern Ireland's construction workforce and 16.5% of Yorkshire & the Humber's construction workforce started work in a different sector, compared to the average of 23.3%.

Those who had worked in other sectors before starting their construction careers were asked what their first job after full-time education had been. A diverse range of jobs were mentioned: 62 different 3-digit SOC codes in all. Figure 11 shows jobs that were mentioned by at least 3% of those who began work outside of the construction industry. Some of these jobs used very similar skills to construction, even though they were outside the sector. Hence for many, moving into construction can be seen as a reasonably natural progression.

Figure 11: Most Common Jobs Undertaken Prior to Working in Construction

Base: Those whose first job after full time education was not in construction

	2012	2007
Unweighted Base	1,113	
Weighted Base	1150	1,422
	%	%
Vehicle Trades	10.0	4
Sales Assistants and Retail Cashiers	8.7	5
Food Preparation and Hospitality Trades	6.5	2
Elementary Storage Occupations	6.1	4
Protective Service Occupations	5.9	4
Elementary Process Plant Occupations	4.8	6
Other Elementary Services Occupations	4.7	Not reported
Plant and Machine Operatives	4.4	6
Process Operatives	4.1	Not reported
Elementary Agricultural Occupations	3.0	Not reported
Agricultural and Related Trades	3.0	4

3.3.3 Job Roles Undertaken In Other Sectors

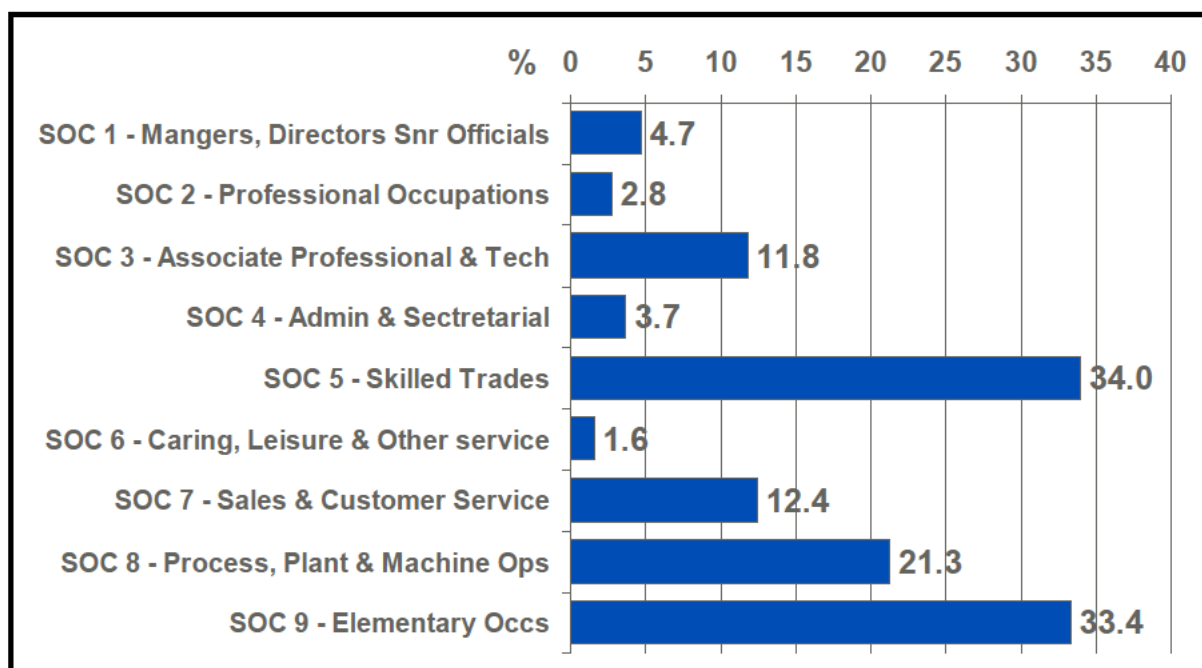
Those who had worked in other sectors before starting their construction careers were asked what their previous jobs had been. The following analysis also includes non-construction occupations undertaken by these workers mid-career. Some workers mentioned five or more different jobs (and sometimes moved in and out of the same roles), but when coded to Standard Occupational Classification [SOC] code 3-digit level, the greatest number of job roles recorded was four (frequently workers mentioned two or more previous job roles within the same SOC code group).

A third of those who had worked outside construction had worked in some sort of 'Elementary Occupation' (33.4%) and another third (34.0%) had worked in 'Skilled Trades'. One in five (21.3%) had worked as 'Process, Plant & Machine Operatives'.

Just over one in ten (11.8%) had worked in an 'Associate Professional & Technical' role outside of construction, many of which would have skills that were transferable to the construction role they later undertook.

Figure 12: Percentage Having Worked in Various Non-Construction Job Roles by SOC Level

Base: Those whose first job after full time education was not in construction



Multiple responses included

Further detail (using the 2-digit SOC) reveals the following top ten occupation groups in which those who had jobs prior to commencing work in construction have worked:

- 15.0% Elementary, Administrative & Service Occupations
- 14.9% Skilled Metal, Electrical & Electronic Trades
- 10.0% Elementary Trades and Related Occupations
- 9.7% Process, Plant & Machine Operatives
- 9.4% Sales Occupations
- 8.4% Textiles, Printing & Other Skilled Trades
- 5.9% Protective Service Occupations
- 5.0% Transport & Mobile Machine Drivers & Operatives
- 2.9% Skilled Agricultural & Related Trades
- 2.8% Administrative Occupations.

3.3.4 Occupational Switching & Progression within Construction

It has long been known that workers often switch job roles within the construction industry, hence as in 2007, the survey asked workers not only about their current main role, but also about other roles they had performed within the sector. Results show that not only did workers reveal movement between the occupation groups that might be considered to be progression of skills or sideward movements, but in order to remain in employment, some workers had taken 'backwards' steps into labouring/general operative roles, or returned to a previous trade.

Overall, 21.7% of workers had undertaken more than one type of construction occupation. While just 18.5% of those who had only ever worked within the construction sector had undertaken more than one type of construction job role (but they also had a shorter average length of service in the sector), 26.6% of those who started work after education in a different

sector had undertaken at least two different job roles within construction. However, of the small group of construction workers (1 in 130 that started work in construction straight after education, but have left the sector for a while and then returned, a third (35.4%) have undertaken at least two different two of construction role, often more.

As might be expected, the rate of switching varies considerably by current occupation group: Figure 13 shows the occupations that are most likely to have undertaken other types of construction work in the past (left side) and least likely to have tried other roles (right side).

Banksmen might be considered to be labourers/general operatives with a specific additional skill in safely guiding vehicles around sites (and both are categorised as ‘elementary’ occupations – SOC 9), therefore it is not at all surprising that half of those in this type of role have undertaken other construction jobs. A similar assessment can be made of the career paths of Plant and Machine Operatives, and this group may also have undertaken similar roles beyond construction.

Other occupations that frequently have multi-role careers include ceiling fixers, dryliners and plasterers: roles that are very closely associated to each other, and that see much movement between themselves (and many workers being required to undertake two or even all three of these roles within a single job).

Figure 13: Other Construction Roles Undertaken by Current Occupation

Base: Workers that have switched occupations within construction (unweighted base)

MORE likely to have had other roles			LESS likely to have had other roles		
	2012	2007		2012	2007
	%	%		%	%
Banksman (80)	47.6	58	Plumber (279)	17.8	25
Ceiling fixer (57)	43.3	n/a	Scaffolder (198)	16.7	n/a
Plant/machine op (348)	41.6	49	Bricklayer (524)	14.6	30
Dryliner (181)	37.1	n/a	Painter/decorator (187)	14.0	35
Welder (32)	36.7	n/a	Carpenter/joiner (637)	14.0	23
Plasterer (142)	36.4	n/a	Electrician (422)	4.8	23

Workers who were least likely to have undertaken other types of roles within construction tended to be skilled trades that require significant training (e.g. City & Guilds Advanced Craft/ NVQ/SVQ Level 3): plumbers; bricklayers; carpenters/joiners and electricians.

The previous job roles undertaken by those currently working in the most common construction occupations are shown in Figure 14. The light blue shading in the table indicates at least 1 in 20 (5%) did this job previously, with dark blue shading signifying the strongest correlations – 1 in 5 (20%) or more having undertaken the role previously.

The previous roles undertaken by labourers/general operatives are many and diverse: this illustrates the multi-skilled nature of much of the construction workforce, the propensity to take sideward steps and even backward steps to lower skilled roles in order to remain in employment (especially if looking to secure work close to home, or with a company/site where better opportunities many arise in the future).

Plant/machine operatives comprise 8.5% of all switchers and they are most likely to have switched into labourer/general operative roles. Indeed, we see a high degree of switching between labourer/general operative and plant/machine operatives in both directions.

Figure 14: Whether had Other Construction Roles by Current Occupation
 Base: Workers that have switched occupations within construction

	ALL switchers	Labourer/ Gen. Op.	Plant/ Mach. Op.	Carpenter/ Joiner	Bricklayer	Dryliner
Unweighted Base	1053	258	140	84	67	68
Weighted Base	1041	248	137	89	71	66
	%	%	%	%	%	%
Labourer/General Op.	25.8	2.8	56.9	38.2	34.2	19.4
Plant/Machine Operative	8.5	21.9	1.5	1.1	11.0	*
Bricklayer	7.6	12.6	10.2	6.7	4.1	3.0
Carpenter / Joiner	6.5	7.3	1.5	0.0	6.8	10.4
Painter / Decorator	5.9	8.9	0.7	4.5	5.5	7.5
Banksman	5.9	8.5	10.2	7.9	4.1	*
Dryliner	5.0	4.9	1.5	5.6	2.7	3.0
Roofer	4.7	7.3	1.5	7.9	6.8	7.5
Ceiling fixer	3.9	0.8	*	3.4	*	41.8
Pipe fitter	3.7	2.0	2.9	1.1	*	1.5
Plasterer	3.2	4.9	*	2.2	9.6	4.5
Scaffolder	2.6	3.2	2.9	3.4	5.5	*
Steel Erector / Rigger	2.4	4.0	*	3.4	*	*
Plumber	2.2	*	*	*	1.4	*
Mechanical Fitter	2.0	*	2.9	*	*	1.5
Site Manager	1.9	1.2	1.5	4.5	*	*
Window fitter/ glazier	1.7	2.4	2.2	4.5	1.4	*
Electrician	1.7	0.8	1.5	0.0	2.7	*
Welder	1.7	2.4	1.5	0.0	*	*
Floorer	1.1	1.6	*	1.1	*	*
Technical	1.0	1.2	0.7	1.1	1.4	*

Dark blue shading 1 in 5 (20%) or more. Light blue shading - 1 in 20 (5%) or more
 Grey shaded cells indicate where respondents have switched job roles within a single occupation grouping. For example plant/machine operatives who moved into crane driving (which is within the wider plant/machine operative grouping).

4 QUALIFICATIONS & SKILLS

This section examines the competence and qualification levels of construction workers, including variations within the workforce by experience, occupation, region/nation and so on. Questions were asked to establish:

- The range of skills cards/certificates held, including the level of CSCS cards held.
- Construction-related qualifications gained before starting work in construction including those gained during an apprenticeship)
- Construction-related qualifications gained while working in construction.
 - Supervisors/managers were also asked about formal training and/or qualifications specifically designed to improve their supervisory/managerial skills or knowledge.
- Construction-related qualifications currently being worked towards.
- Workers' self-perceived need for additional training in basic skills to help them get on better at work: reading; writing; speaking English and/or maths.

4.1 Construction Skill Cards and Certificates

Over recent years, increasing emphasis has been placed on health and safety for everyone entering construction sites, and there have been moves to ensure that all workers and regular visitors have received a certain level of health and safety awareness training that can be evidenced. The vast majority of construction sites now require evidence in the form of a Construction Skills Certification Scheme (CSCS) card (equivalent from an affiliate scheme such as Construction Plant Competence Scheme; Construction Industry Scaffolders Records Scheme; or the Joint Industry Board's Electrotechnical Certification Scheme).

Respondents were asked whether they had any skills cards and certificates and what these were.

Figure 15: Whether Have a Skill Card/Certificate by Region/Nation

Base: All respondents

	2012	2007
Unweighted Base	4,933	3,877
Weighted Base	4,800	3,877
	%	%
UK	97.3	68
Northern Ireland	100.0	84
West Midlands	100.0	79
East Midlands	98.8	60
North East	98.8	68
North West	98.5	75
Scotland	98.3	59
East of England	98.0	81
South West	97.4	70
Yorkshire & Humber	96.7	66
Greater London	95.9	72
South East	95.7	71
Wales	92.3	82

Overall, 97.3% of construction workers interviewed in this survey were clear that they held at least one of the recognised skills cards/certificates. Although the number of 'non-holders' is small, the reality may be that some of those workers do actually hold a card, but that it is held by their employer or college (especially if on short-term work experience placement. As Figure 15 (above) shows, the proportion of construction workers that hold a skill card/certificate has increased dramatically since 2007 (68%), suggesting that it is now a pre-requisite of employment on most sites (many sites 'signing in' books require the worker's CSCS card number to be recorded as they sign in each day).

In 2007 the majority of construction workers in each region/nation held a skill card/certificate, but in some areas the majority was slim e.g. Scotland (59%), East Midlands (60%). These regions/nations have seen the greatest increase in skill card/certificate possession: both having risen to at least 98% penetration.

We now see that the lowest incidence of skill cards/certificates is in Wales (92.3%): five percentage points lower than the UK average.

Figure 16 illustrates that the lowest incidence of skill cards/certificates is in fact among new entrants to the industry (up to 2 years); particularly those aged 16-19 years. This suggests that preparation for, and acquisition of, a CSCS card (or similar) is not always undertaken at the earliest stages of training, or perhaps that young trainees are not always made aware of the significance of the health and safety test they take through college/training provider, and are not always issued with a card before they commence work placements (with assurances of H&S training or accreditation levels being passed directly from training provider to site management).

Figure 16: Whether Have a Skill Card/Certificate by Other Variables

Base: All respondents (unweighted base)

	2012	2007
Unweighted Base	4,933	3,877
Weighted Base	4,800	3,877
	%	%
UK (4,933)	97.3	68
<1 year in construction (181)	89.4	39
1-2 years (228)	86.4	60
3-4 years (360)	95.9	65
5+ years (4,006)	98.4	75
16 - 19 (166)	86.1	43
20 - 24 (698)	95.4	62
25 - 44 (2,553)	98.6	73
45+ (1,335)	97.2	72
Employed directly (2,277)	96.8	70
Self-employed (2,209)	98.7	69
Agency (310)	91.9	62
UK / ROI national (4,185)	97.3	70
Migrant worker (432)	97.7	49

Bases shown within tables are weighted bases

Agency workers are also less likely to have a skill card/certificate (91.9%) than those employed directly (96.8%) and compared to the self-employed (98.7%).

Given the high penetration of skills cards/certificates (particularly the CSCS and its affiliate schemes) it is not surprising that there is very little variation in the proportions that have skills cards/certificates between different occupation groups.

Figure 17 below shows the proportions of workers reporting the possession of various types of skill cards/certificates. We are aware that many construction workers hold several different cards (usually, but not always of the same/equivalent level) issued under different schemes e.g. many hold CSCS and CPCS cards. However, it also became clear during fieldwork that some construction companies apply for cards on behalf of their workers, and retain the cards in an office, rather than passing the card to the employee, hence some workers are unsure of the level/type of card they hold. Interviewers also commented that many construction workers understood that affiliate schemes are equivalent to CSCS, and therefore they told the interviewer that their card was a CSCS (although when they got it out to check the colour, it could be seen to be from another scheme).

Figure 17: Type of Skill Card/Certificate Held

Base: All respondents

	2012	2007
Unweighted Base	4,933	3,877
Weighted Base	4,800	3,877
	%	%
CSCS (Construction Skills Certification Scheme) (GB) / CRS (Construction Skill Register) (NI)	91.8	55
CPCS (Construction Plant Competence Scheme)	11.1	10
CISRS (Construction Industry Scaffolders Records Scheme)	3.0	2
Gas Safe Register [†]	1.4	2
JIB ECS (Electrotechnical Certification Scheme) card	1.2	n/a
CTA (Certificate of Training Achievement)	1.1	2
Engineering Services SKILLcard	1.0	n/a
Safe Pass	0.6	5
Other	6.9	32
Don't know	0.5	
None	2.7	

Multiple responses included

[†] Gas Safe Register replaced 'CORGI Registration' between the 2007 and 2012 surveys

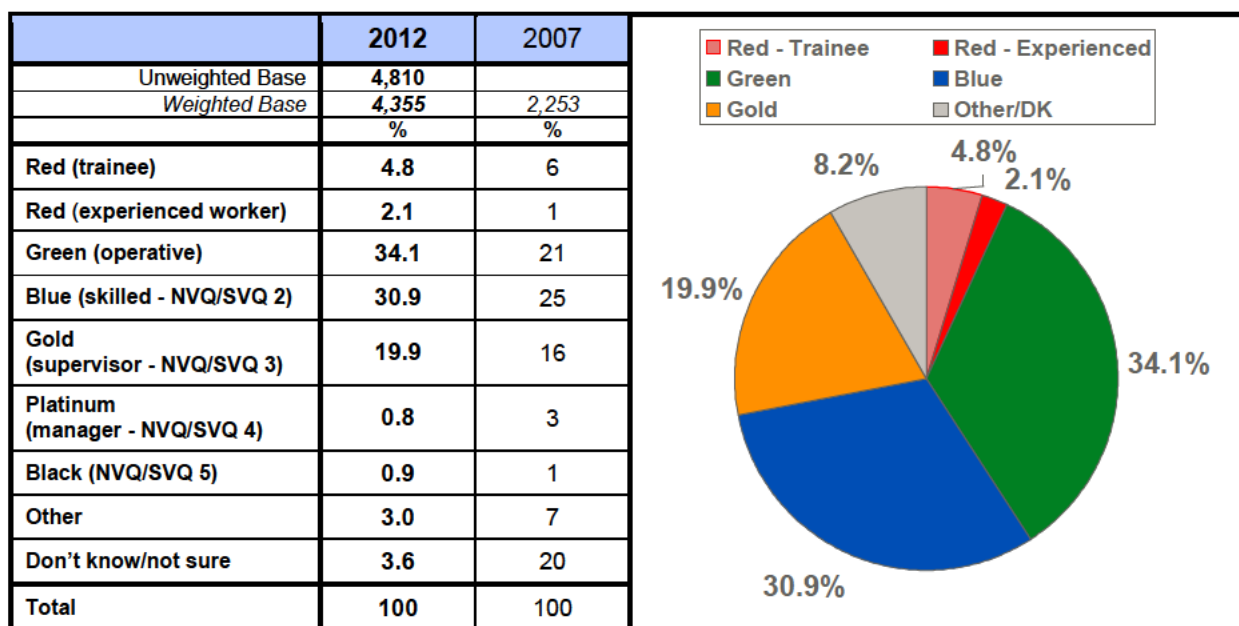
The majority (91.8%) of construction workers hold a CSCS or CRS card (or an affiliate card that they know equates to a CSCS card). This has increased by more than a third since 2007. The possession/attainment of other cards is much less widespread, as would be expected, since other cards tend to be more skill/trade specific than the CSCS/CSR card. Alongside the increased level of reporting of CSCS card possession, it is also striking that the numbers mentioning having no card/certificate, not knowing whether they hold such an accreditation, or mentioning something other than those listed above a recognised by the CSCS has fallen from 32% to less than 10%: in fact, only 2.7% said that they were working without a certificate or card evidencing their skill and or health and safety awareness.

Further analysis (see Appendix Table 7) shows that variations in specific cards attained by different groups of workers are minimal.

Many construction workers carry their skill cards in their wallets, and although they could not remember the colour or level of their card, it could be checked during the interview, and compared to a showcard with both the 'new' and 'old' cards pictured. However, there is still some confusion between older style 'operative' and 'skilled worker' cards (where the blue or green typeface on a white background is arguably less distinct and memorable). Figure 18 below shows that awareness of the colour/level of CSCS/CSR cards held has increased significantly among card holders since 2007, and the strongly coloured cards now being issued is an important factor in this.

Figure 18: Type of CSCS or CSR Card Held

Base: Those with CSCS or CSR cards



Around a third of the workforce (34.1%) holds the green (operative) card and almost another third (30.9%) holds the blue (skilled NVQ/SVQ 2) card. One in five (19.9%) holds a gold (supervisor/NVQ/SVQ 3) card. Other cards are held by a much smaller proportion of the workforce. The proportion of workers reporting that they are not sure which card they hold has decreased significantly between 2007 and 2012.

4.2 Construction Qualifications Held

Workers were asked what formal qualifications relevant to construction they obtained before they started work in the sector (to include qualifications gained through undertaking an apprenticeship). Where more than one relevant qualification had been gained, the highest level was recorded.

Another question asked was whether additional qualifications had been gained since commencing work (or completing apprenticeship) in the construction sector.

Together, these questions allowed researchers to derive the highest level of construction qualification held at the time of interview, also the main type of qualification (NVQ/SVQ, City & Guilds etc) through manual re-coding, and an assessment of how relevant the subject of the qualification was to the current occupation.

The survey results reveal that it is common for employers to arrange or support accredited qualifications (as well as non-accredited skills training) that may be at the same or lower level

as those already held by workers – perhaps as part of a workforce-wide training programme. These additional qualifications, although not at as high a level as existing qualifications may be, are often more focused on a specific technical skill. Although difficult to evidence within the survey data, it was evident during interviewing that many courses undertaken during employment were described as being at a certain NVQ/SVQ level, but were not actually full NVQ/SVQs.

The following analysis takes the level and type of qualification at face value as described by the worker. However, we have excluded mentions of ‘tickets’ and cards of competence for operation of various types of construction equipment and plant (IPAF and PASMA were frequently mentioned by plant operators, by those in various labourer/general operative roles, as well as by some skilled craftsmen).

Two thirds (65.0%) of construction workers reported holding some sort of construction-specific qualification: Figure 19 shows the variation in qualification penetration between groups of construction workers, and further detail can be seen in Appendix Table 8.

Figure 19: Whether Hold Any Construction-Specific Qualification

Base: All respondents

	2012	2007
Unweighted Base	4,933	3,877
Weighted Base	4,800	3,877
	%	%
UK (4,933)	65.0	48
<1 year in construction (181)	28.7	15
1-2 years (228)	35.8	30
3-4 years (360)	58.7	39
5+ years (4,006)	69.7	57
16 - 19 (166)	46.7	30
20 – 24 (698)	62.0	40
25 – 44 (2,553)	66.8	54
45+ (1,335)	65.2	50
Employed directly (2,277)	66.3	48
Self-employed (2,209)	66.2	54
Agency (310)	46.9	30
UK / ROI national (4,431)	67.0	n/a
Migrant worker (326)	47.7	n/a

Workers who have been in the sector for less than a year, or one to two years are much less likely than average to have achieved a construction-specific qualification (28.7% and 35.8% respectively): many, but not all, will be undertaking qualifications (including through an apprenticeship programme). A similar and correlated finding is that a lower proportion of young people hold a construction qualification (46.7% of 16-19 year olds).

Agency workers are significantly less likely than average to have a construction qualification (46.9%) compared to both those who are employed (66.3%) and those who are self-employed (66.2%). Migrant workers are also less likely than average to hold a construction qualification (47.7%).

Figure 20 below shows the proportion of the workforce holding a construction-specific qualification by occupation. Those in occupations where there is a high likelihood of having a construction-related qualification (i.e. where 50% or more of the workforce say they have a qualification) are shown in the left column. Those with a low likelihood (less than 50%) are shown in the right column.

Plumbers, electricians, carpenters/joiners, and bricklayers and are the occupations that are most likely to report having a construction-specific qualification (89.0%, 88.9%, 85.8% and 80.3% respectively). For most of the occupation groups in the lower likelihood, between half and two thirds reported having a construction-related qualification. The lowest incidence of self-declared construction qualifications (other than test certificates required to get CSCS cards or to operate machinery on site) was among floorers, banksmen, steel erectors/riggers, roofers and general operative/labourers (all below 58%).

Figure 20: Whether Hold a Construction-Specific Qualification by Occupation

Base: All respondents (unweighted base)

	HIGH likelihood		LOW likelihood		
	2012	2007	2012	2007	
	%	%	%	%	
Plumber (279)	89.0	64	Plasterer (142)	68.9	41
Electrician (422)	88.9	70	Ceiling fixer (57)	68.3	
Carpenter / joiner (637)	85.8	65	Mechanical fitter (30)	64.3	
Bricklayer (524)	80.3	73	Plant/machine op (348)	60.3	37
Painter / decorator (187)	77.8		Dryliner (181)	59.6	†
Technical (114)	77.0		Floorer (63)	57.8	
Scaffolder (198)	74.6		Banksman (80)	56.1	37
Site manager (25)	73.3	73	Steel erector/rigger (113)	55.6	
Welder (32)	72.4		Roofer (185)	55.6	29
Window fitter/glazier (58)	72.4		Gen op/labourer (1,106)	54.1	19
Pipe fitter (116)	72.4				

† Dryliners were reported in combination with plasterers in 2007. Reporting in 2007 only presented the top five and bottom five occupations – hence it is not possible to present comparative data for all groups.

Where information from 2007 is available some interesting changes can be observed, particularly increase in the proportions with construction qualifications in occupation groups that previously had low qualification rates. The table above (Figure 20) shows that the proportions of 'site managers' with a construction qualification is unchanged, but that for all other occupations with comparative data, the proportions have increased. The greatest increase can be seen among occupation groups that are semi-skilled or relatively unskilled, including plant/machine operative, banksman, and general operative/labourer, underlining the increased provision of nationally recognised qualifications (largely NVQ/SVQs) targeted at these roles.

4.3 Type of Construction Qualifications Held

Data presented below combines reports of construction-related qualifications gained before employment in the sector, during apprenticeships and while working. Wherever possible interviewers probed for details of any qualifications gained during an apprenticeship, hence 'apprenticeship' is only recorded where it was an informal or company-specific programme without accredited qualifications, or where the worker was unsure of any qualifications undertaken.

In 2012, seven out of ten workers with a construction-related qualification reported that their main qualification was an NVQ/SVQ: this equates to a third (32.6%) of all construction workers.

A further 17.1% of those with qualifications (7.8% overall) had a City and Guilds qualification as their main construction qualification. Other types of qualifications were rarely reported as the main type (see Figure 21 for a full breakdown).

Figure 21: Main Type of Construction Specific Qualification Held

Base: Those with a qualification / all workers

	2012 all with a qual	2007 all with a qual	2012 All workers
Unweighted Base	2,284		4,933
Weighted Base	2,196	1,825	4,800
	%	%	%
No qualification	n/a	n/a	54.3
NVQ/SVQ	71.3	51	32.6
City & Guilds	17.1	34	7.8
Construction Award	*	2	*
Apprenticeship	0.9	4	*
HNC/HND/BTEC Higher	1.3	1	0.6
Degree	0.6	1	*
Other	2.9	n/a	1.3
Don't know/not sure	5.6	n/a	2.5
Total	100	100	100

Looking at the sub-set of workers with construction qualifications, some interesting changes can be seen to have occurred in the last five years. The proportion of workers with an NVQ/SVQ increased from 51% to 71.3% between 2007 and 2012, an increase of 20 percentage points. In contrast, there was a decrease of 17 percentage points in workers holding a City and Guilds qualification as their main qualification.

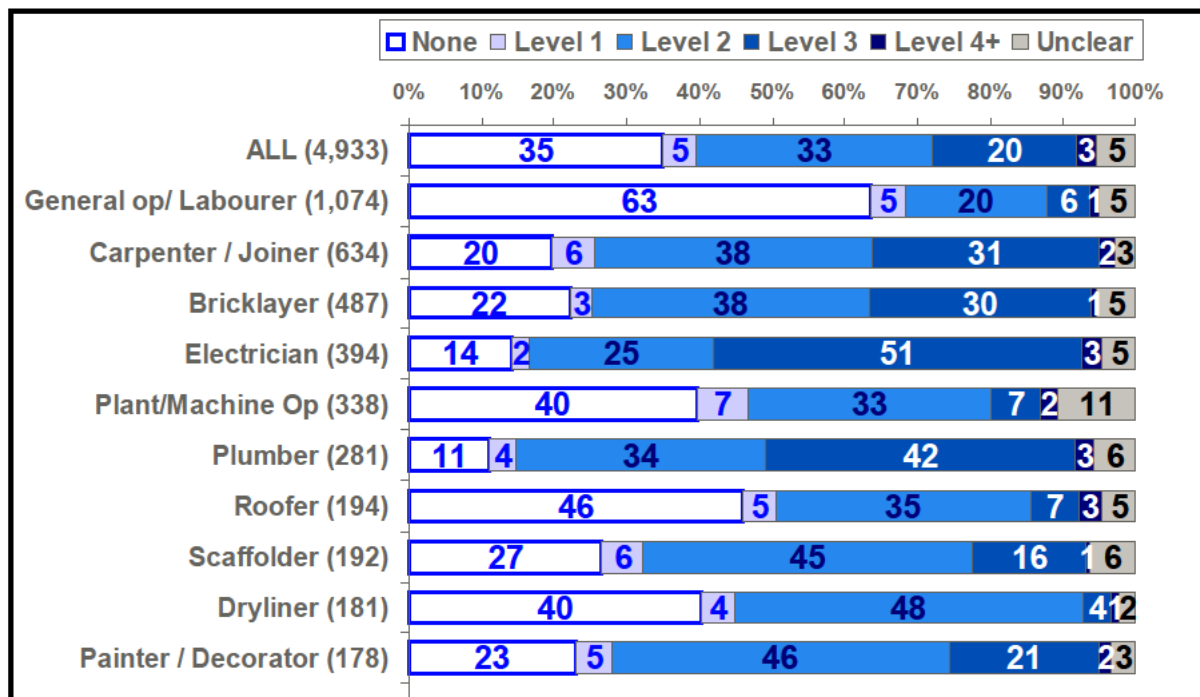
So far, this section has examined the penetration and type of qualifications held by construction workers. Figures 22 and 23, over the page, focus on the level of qualification (on the National Qualification Framework) that construction workers have reached, by occupation and region/nation.

Just over a third (35.0%) of construction workers did not have a construction related qualification. A relatively low proportion (4.5%) of construction workers are qualified to level 1 only. The majority have either a level 2 (32.7%) or a level 3 (19.7%) qualification. Fewer than 5% of all manual workers are qualified to level 4. One in twenty (5.3%) stated that they had a construction qualification, but did not provide enough information for that to be equated to an NVQ level.

Workers undertaking unskilled and relatively low-skilled tasks such as labourers/general operatives are least likely to have a construction qualification. Of those who do, one fifth (20%) have a level 2 qualification. Just under half of all roofers (46%) and two in five plant/machine operatives (40%) and dryliners (40%) and also have no specific qualification/level to report.

Figure 22: Current Qualification Level by Occupation

Base: All respondents



There is variability in the proportion of the workforce with a level 2 qualification by occupation, ranging from 20% (for labourers/general operatives) to 48% (dryliners). There is also significant variability in the proportion of the workforce with a level 3 qualification by occupation. Occupational groups with the highest qualification levels include electricians (of whom just over half have a level 3 or level 4 qualification) and plumbers (just over two fifths have a level 3 or level 4 qualification).

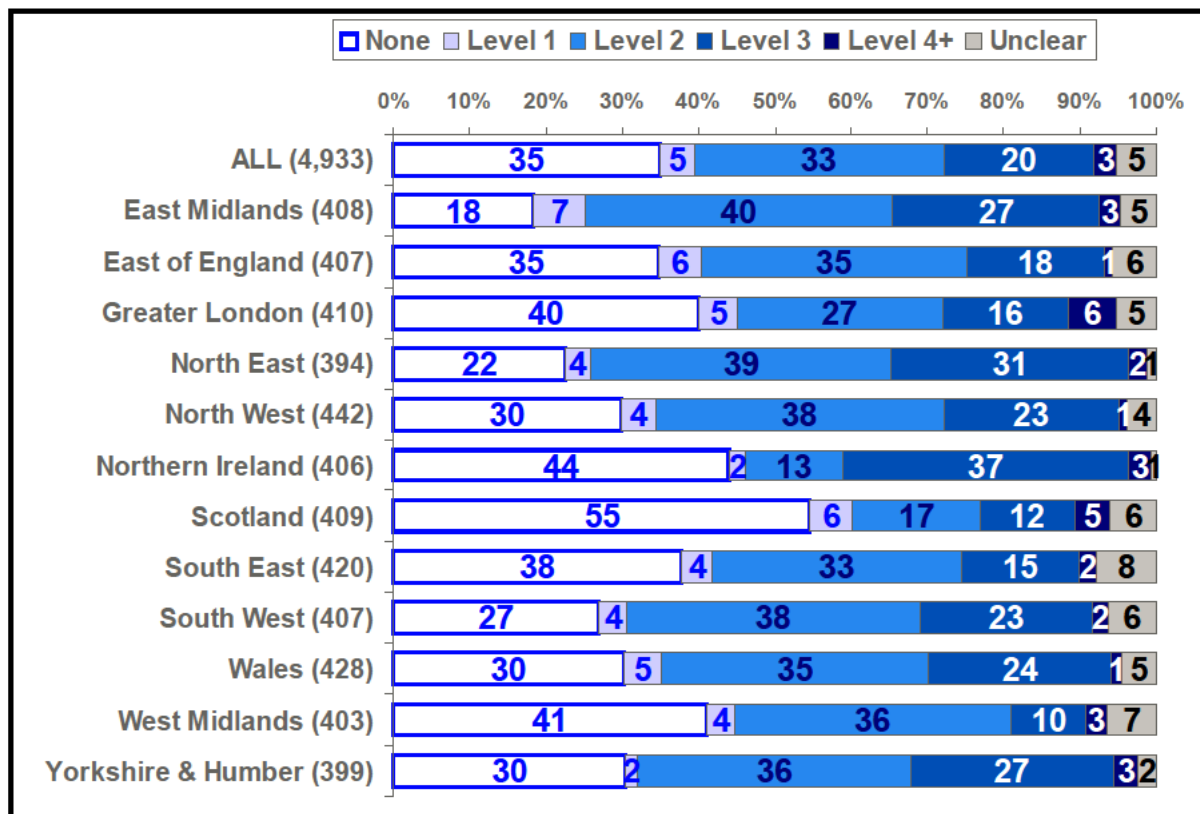
Across all occupations, fewer than 5% of workers are qualified to level 4.

There are some interesting variances in the current qualification levels of the workforce by region/nation (see Figure 23 below). Scottish workers (55%) are most likely to have no current qualification. This is the only geographical area in which more than half of the workforce has no construction qualification. Northern Ireland (44%), the West Midlands (41%), Greater London (40%) and South East (38%) also have high proportions of the workforce with no current qualification. Northern Ireland is unique in that, despite the large proportion of workers in the country who have no qualification, it has the largest proportion of the workforce with level 3 or 4 compared to other regions.

Workers are most likely to currently hold a qualification (at any level) in the East Midlands and North East regions.

Figure 23: Current Qualification Level by Region/Nation

Base: All respondents



4.4 Additional Formal Training

To establish the extent to which there are additional skills/training needs across the construction workforce, construction workers were asked to state whether they are currently undertaking any additional qualifications, and also, whether they have any basic skills needs to help them undertake their work.

4.4.1 Self-Assessment of Basic Skills Needs

Overall workers' self-assessed need for training in basic skills has remained roughly static between 2007 and 2012, with around one in five of the whole workforce stating that they require training in one or more of these areas (see Figure 24). There have been only minimal changes in the last five years in workers' view on whether each type of training would help them in their work.

Figure 24: Self-Assessed Need for Training in Basic Skills

Base: All respondents

	2012	2007	All identifying a need for basic skills training in 2012
Unweighted UK Base	4,933	3,877	917
Weighted UK Base	4,800	3,877	945
	%	%	%
Any need identified	19.7	21	n/a
Maths	10.3	10	52.4
Reading	9.1	12	46.4
Writing	8.8	10	44.5
Speaking English	8.0	12	40.6

Multiple responses included

Further analysis (see Appendix Table 9) shows that older workers (35+) are less likely to report that they would benefit from training in any basic skill (16.0%), as are those who have been working in construction for more than 5 years. Those aged 35+ are also less likely to be open to receiving support with maths (7.7%) than younger workers (13.1% of workers aged under 35).

Those with a supervisory/management role (15.5%) are less likely to feel they require any basic skills training than those with no supervisory/management responsibilities (20.3%). Also, those with higher qualifications (13.7% at level 4) are less likely than the average to feel they could benefit from any basic skills training.

There are a number of specific occupational groups who are more likely to report that they could benefit from some sort of basic skills training: window fitters/glaziers (33.9%), banksmen (28.0%) and roofers (25.3%).

4.4.2 Current Study for Additional Construction Qualifications

Just one in ten (10.5%) workers said that they were working towards additional construction qualifications at the time of the interview compared with 17% in 2007. Interestingly 2.3% reported that they were unsure whether or not they were working towards a qualification at that time: anecdotally, this was a combination of not having felt they had been aware that they were working towards qualifications in the past until an assessor visited them at work, and not being sure whether their employer-led training had a nationally recognised qualification attached or not. However, even if all those who were 'unsure' were actually working towards a qualification, the overall proportion would still be lower than in 2007.

A higher than average rate of current learning activity can be seen amongst a range of groups including:

- Workers who are 'new' to the sector: 1 year (26.4%) and 1-2 years (35.4%).
- Younger workers: 16 -19 years (55.7%) and 20-24 years (19.5%).
- Those who are directly employed by a company (13.7%).
- Workers in the South West region (15.4%).
- Certain trades: electricians (21.5%), window fitters (20.7%) and scaffolders (19.4%).

Figure 25: Whether Working Towards Additional Construction Qualifications

Base: All respondents

	2012	2007
Unweighted Base	4,933	3,877
Weighted Base	4,800	3,877
	%	%
UK	10.5	17
< 1 year in construction	26.4	28
1-2 years	35.4	32
3-4 years	21.0	36
5+ years	7.5	11
16 - 19	55.7	47
20 - 24	19.5	27
25+	7.0	12

4.5 Supervisory and Managerial Qualifications and Training

All workers who reported that they had some supervisory or management responsibilities on their current site were asked what formal training (if any) they had ever received that had been specifically designed to improve managerial or supervisory knowledge and skills. A showcard was used with seventeen common forms of supervisory/management training (including various qualifications) listed in Figure 26 below.

The proportion of construction supervisors/managers in partially manual roles that had received some sort of formal training for staff supervision had increased dramatically since the previous survey (71% in 2012 compared to 53% in 2007). Just three in ten (29.0%) had not received any specific supervisory/management training, compared with almost half (47%) in 2007. This is a positive finding for the entire workforce, not only for those asked to undertake supervision of teams (often as sub-contractor team leaders) but also for individual site workers, who have senior colleagues or leaders with enhanced awareness of their responsibilities, legal requirements, importance of communication, health and safety knowledge etc.

There is some variation in the types of training undertaken to improve supervisory/management skills. Not only are more workers in supervisory roles receiving training, but fewer report that the training is in-house. Therefore there is evidence of the sector increasingly investing in external training courses, including those with recognised certification. Receipt of in-house training decreased from 31% in 2007 to 23.6% in 2012, and chargehand/team leader training decreased from 10% to 6.9%.

That is not to say that participation in all types of external courses has increased, but there has been a notable increase in participation in two courses/schemes: Site Safety Supervisors Course (19.3% compared with 7% in 2007) and Site Manager Safety Training Scheme (16.7% compared with 8%).

Figure 26: Training Received to Improve Supervisory/Management Skills

Base: Those with supervisory or managerial duties

	2012	2007
Unweighted Base	801	
Weighted Base	814	678
	%	%
No training received	29.0	47 [†]
In-house training	23.6	31
Site Safety Supervisors Course	19.3	7
SMSTS (Site Manager Safety Training Scheme)	16.7	8
Chargehand and Team Leader Training	6.9	10
NVQ / SVQ Level 4 in Construction Site Management	4.6	1
CIOB Site Management Education and Training Scheme (SMETS)	3.2	2
CIOB Site Supervisor (First Line Supervisor – FLS)	3.0	2
Assessor and Verifier Training	3.0	5
Site Supervisor Safety Training Scheme (SSSTS)	3.0	n/a
Project Management short courses	2.1	3
Supervisory Management Training and Development (SMTD)	2.1	2
IOSH (Institute of Occupational Safety and Health) unspecified	2.0	3
Managing Safely in the Construction Industry (for CSR)	1.9	3
IOSH Managing Safety for Construction Managers	1.6	3
Civil Engineering Site Managers Scheme	1.4	3
Institute of Supervision and Management workshops	0.7	1
IOSH Safety for Senior Managers	*	0
Safety for Senior Executives (for CSR)	*	1
Other	3.4	-
Can't remember	4.4	n/a

† 2007 data includes 'can't remember'.

4.6 Overall Skill Levels

An overview of the qualification and skill levels of construction workers surveyed has been derived by combining data from various separate measures, and is presented in Figure 27 below.

The vast majority of construction workers have a construction-related qualification and/or skills card/certificate (or were working towards a qualification at the point of interview): only 2.3% of those interviewed could not say that they were at least working towards obtaining a CSCS card (or similar) or construction qualification. This is a significant improvement from 2007, where 18% did not have, and were not working towards, any sort of proof of skill or knowledge relating to the industry.

Just over half of the workforce (52%) holds a skill card/certificate, but have no other construction qualification: up from 33% in 2007.

There has been a decrease in the proportion of workers who are working towards a construction qualification (from 17% to 10.5%). This may be partially indicative of a slow-

down in recruitment of new workers (especially younger workers enrolled in training to qualifications) and of employers closely managing spend on training and qualifications, but is also likely to reflect the great steps already taken in recent years to deliver relevant qualifications to the workforce.

Figure 27: Qualification Status Summary

Base: All respondents

	2012	2007
Unweighted Base	4,933	3,877
Weighted Base	4,800	3,877
	%	%
Hold a formal construction qualification or a skills card/certificate or working towards a qualification	97.8	82
Hold a formal construction qualification or a skills card/certificate	97.7	78
Hold a skills card/certificate	97.3	68
Hold a skills card/certificate but no other construction qualification	52.0	33
Working towards a qualification	10.5	17

Multiple responses included

Following analysis conducted in 2007, an overall skill level has been calculated by combining the formal qualification levels discussed above, with assumed NVQ/SVQ level equivalence of the various supervisory/management course recorded, and cross-referencing with the type of CSCS (or affiliate) card held. The resultant variable has been used to produce Figure 28 (over the page), which illustrates the overall skill level of the workforce by region/nation.

On average, just one in twenty (5%) workers has no evidenced skill/qualification level. Absence of evidenced skills/qualifications is slightly higher than average in Greater London (8%) and Scotland (7%), and lower in Northern Ireland (1%), the East Midlands and the North East (2% and 2% respectively).

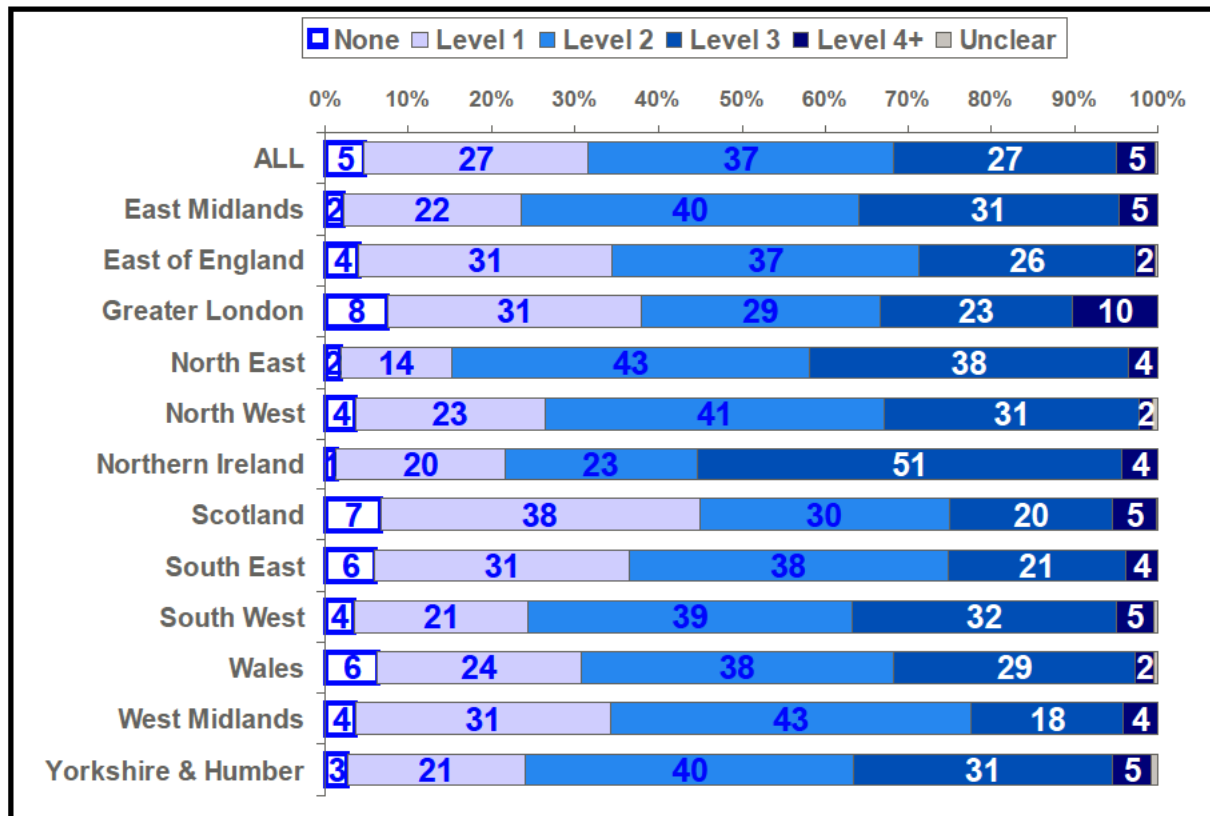
Across the UK workforce, just over a quarter (27%) of the construction workforce is assessed to have evidence of skill/qualification at level 1; more than a third (37%) at level 2; another quarter (27%) at level 3.

The geographical areas in which construction workers are significantly more likely to hold qualifications at a higher level (level 3 or more) are Northern Ireland (54.9%) and the North East (41.6%).

Analysis by other factors (see Appendix Table 8) reveals that those who have worked in construction for 2 years or fewer are less likely to have reached level 2 or higher (26.0% compared with 72.3% for those with 3 or more years' experience). As one might expect, those with a supervisory/management role are more likely to have reached level 3 or above than those with no supervisory role (60.1% compared with 25.4%).

Figure 28: Overall Skill Level by Region/Nation

Base: All respondents



5 GEOGRAPHIC MOBILITY

A key driver of this research was to gather an up-to-date picture of the geographic mobility of construction workers, including to establish which areas of the UK are net 'importers' or 'exporters' of construction workers. Furthermore, this research will document which sections of the workforce (according to factors such as occupation group and qualification/skill level) are the most mobile. This data can support CITB-ConstructionSkills and other sectoral organisations' planning for training provision and investment.

There are numerous ways in which worker mobility can be measured, and several approaches were employed in this survey:

- Comparison of the region/nation of residence immediately before joining the construction workforce, and the current region of employment.
- The proportion of their construction career that has been spent working in the current region/nation.
- Whether the current site is commuted to daily from their main permanent residence or temporary accommodation is being used.
- The miles travelled to site each day.
- Whether the next site is 'commutable' or requires the use of temporary accommodation.

Of course these factors largely measure relatively long-distance inter-regional/national mobility, but some workers move between sites regularly (daily in the case of some technical occupations and scaffolders). For these workers, additional training can be more difficult to organise, potentially requiring absence from multiple sites, and support from more than one manager, or even company.

5.1 Work History in the Current Region/Nation

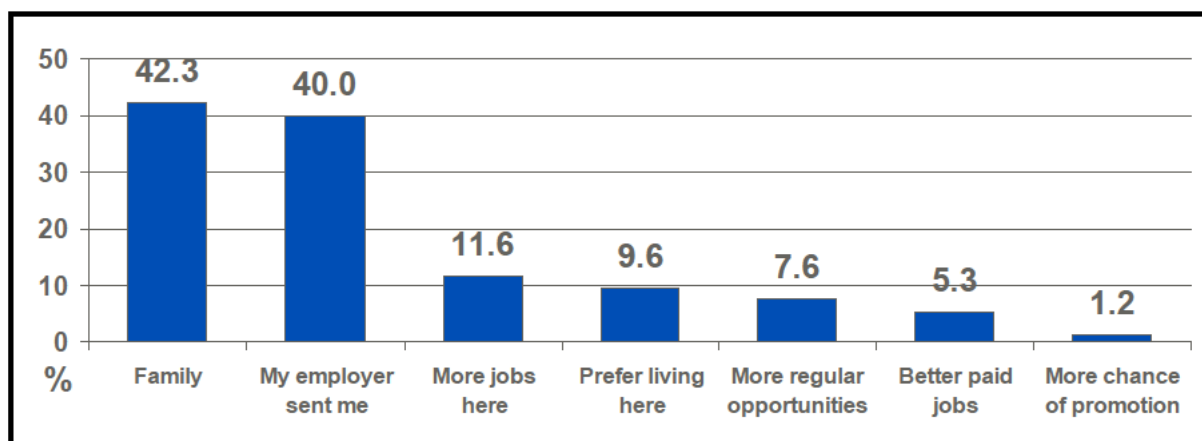
Unlike in the 2007 survey, all workers were asked why they were working in the area in which they were interviewed. Answers were recorded onto a pre-coded list of seven reasons, with the scope for noting any substantially different reasons given. More than one reason could be recorded.

Two fifths (42.3%) gave an answer relating to family reasons: either that they grew up in the area / had lived there all/most of their lives, or that they have moved to the area to follow family or a partner. An almost equal proportion (40.0%) said that their employer had sent them there: these were predominantly direct employees, or self-employed workers who worked exclusively for one company as if they were directly employed by them. In some cases the interpretation of 'this area' had been very localised (thinking about the location of the specific site within their home region/nation) hence answering that it was their employer's choice where they worked, whereas if the question had been specifically about working within that region/nation, they may have given a response fitting the 'family reasons'.

Just over one in ten (11.6%) said there were more jobs available in that area than where they had lived/worked in the past. One in ten (9.6%) stated that they preferred living in that region/nation – suggesting that they had either relocated at that point, or had worked away from home for a while but returned out of choice. Few (1.2%) said that they were working in an area for better pay or for increased chance of promotion.

Figure 29: Reason for Working in the Current Region/Nation

Base: All respondents



One in three (33.0%) had worked in the same region/nation for their entire construction career, a lower proportion than in 2007. The increased proportion that had worked for some period outside their home region/nation is more likely to be explained by sub-contracting companies taking contracts further from their base and requiring workers to travel, rather than individuals taking jobs away from home (either to 'go into digs' or to move house).

Figure 30: Proportion of Construction Career Worked in Current Region/Nation

Base: All respondents

	2012	2007	National employer [†]	
Unweighted Base	4,933	3,877	3,986	
Weighted Base	4,800	3,877	3,982	
	%	%	%	
All of it	33.0	43	35.5	
Most of it	35.9	33	36.9	
Around half	12.1	9	11.6	
A small proportion	13.5	8	10.9	
Only on this job	3.2	3	3.2	
Don't know	2.2	3	2.0	

[†] 'National' is defined as at least 9 of the 12 regions/nations of the UK (workers frequently reported that their company did not work in Northern Ireland, and they were unsure about one or two other regions that were distant from their own).

5.2 Worker Origins

Workers were asked which region/nation they were living in just before they got their first job in construction in the UK (or whether they moved from outside the UK). Overall, 5.7% of UK construction workers in this survey were originally from outside the UK: fewer than 2% were from the Republic of Ireland, and most of the remainder were from outside the EU, predominantly Eastern Europe. When drawing comparisons with the survey conducted in 2007, it appears that the number of migrant workers from beyond the UK and ROI has

halved in the last five years. While construction workers still talk of the pressure of securing work in the industry against competition from migrant workers, this perception might have persisted from the reality of several years ago when construction was more buoyant. Site managers commented to interviewers that far fewer non-UK nationals are looking for work on their sites, although there is also a perception that many of those who have settled in the UK have moved away from working on large construction sites (often with teams from their home nation) to work self-employed for small building companies and directly for householders once their English language skills are good enough.

Some caution should be taken in the interpretation of this data, as it cannot distinguish between workers who had relocated; are staying in 'digs' short-term; are travelling long distances or those who live and work close to a regional/national border, and perhaps travel less distance into a neighbouring region/nation than other workers do within a region/nation.

Two thirds (65.8%) of workers were interviewed on construction sites in the same geographical area in which they were living when they started working in the construction sector. However, there was considerable variation in the extent to which workers had remained in their original locality or moved elsewhere during their career, which Figure 31 (below) illustrates. The shaded cells identify those still working in same region/nation.

Figure 31: Inter-Regional/National Movement During Construction Careers

Base: All respondents

ORIGINAL HOME	WHERE CURRENTLY WORKING											
	NI	WA	NE	SC	YH	NW	SW	EM	WM	SE	EE	GL
Unweighted Base	406	428	394	409	399	441	408	407	403	420	407	411
Weighted Base	142	228	170	402	370	469	422	340	402	718	499	638
	%	%	%	%	%	%	%	%	%	%	%	%
Northern Ireland	95.7	*	*	1.2	*	2.6	*	*	1.7	1.0	*	0.9
Wales	*	85.7	*	*	*	2.6	3.1	0.6	1.5	*	*	0.5
North East	*	*	85.2	1.5	4.3	0.6	*	4.2	2.0	1.4	1.2	1.7
Scotland	0.7	0.9	0.6	83.4	*	2.8	*	0.6	0.7	*	1.0	0.8
Yorkshire & Humber	*	0.9	10.7	1.7	80.0	4.5	*	9.5	3.2	1.4	2.2	0.9
North West	*	6.3	2.4	*	6.5	79.4	*	3.6	5.7	0.7	3.0	0.9
South West	*	2.2	0.6	0.7	*	*	77.4	0.6	1.7	5.7	*	0.8
East Midlands	*	*	0.0	*	2.4	*	0.5	63.2	13.7	6.3	13.5	0.8
West Midlands	*	0.9	0.0	2.2	1.1	4.0	2.1	10.4	57.2	2.1	1.8	3.0
South East	*	*	0.0	0.5	0.5	0.6	12.1	0.9	1.5	52.4	15.7	23.5
East of England	*	*	0.6	*	*	*	*	2.4	0.5	6.0	48.3	3.5
London	*	*	*	2.2	0.8	*	1.9	1.2	1.7	11.7	10.1	46.0
Outside UK	3.6	1.3	*	5.7	0.8	2.1	1.4	3.0	8.0	9.7	2.0	16.2
Unclear	*	*	*	*	2.2	*	0.7	*	0.7	1.3	0.6	0.5

Regions/nations with the most stable workforces (i.e. importing the lowest proportions of workers) are Northern Ireland, Wales, the North East, Scotland and Yorkshire & Humber: arguably areas of geographic isolation. Regions/nations with the highest levels of construction workers imported from beyond the region are the more buoyant areas of southern England (London, East of England and the South East).

The key patterns of mobility of construction workers between regions/nations of the UK can be summarised thus:

- More than half of workers on London sites were originally from beyond the city: including almost a quarter (23.5%) from the South East (presumably in the commuter belt). Notably 16.2% of workers we interviewed in the capital were living overseas before they got their first UK construction job – so they can reasonably be assumed to be economic migrants. The actual figure may be higher when those whose first UK construction job was not in London are added.
- London appears to be the greatest exporter of construction labour to other parts of the UK. Those starting out in construction in London account for at least one in ten workers in the South East and East of England, due to the closely adjacent borders of these more vibrant regions.
- One in ten workers in the North East were originally from the neighbouring Yorkshire & Humber region: mainly commuting daily up the A1 from the North Yorkshire borders and the West Yorkshire conurbations (where work is reported to be in short supply). Fewer than one in twenty Yorkshire & Humber site workers had started work in the North East.
- While Scotland's construction workforce is dominated with 'home-grown' employees, and a very small number from the regions of northern England, it is perhaps surprising to see London as the single greatest supply region. However, it is also noticeable that one in twenty workers lived outside the UK before their first construction job, hence it is likely that some overseas immigrants began work in London before being attracted to projects in Scotland. Several Scottish sites either requested Polish questionnaires, or commented upon the existence of workers from various Eastern European countries who would be comfortable being interviewed in English.
- Wales imports less than 15% of its construction workforce: the greatest area of supply is the North West, presumably not just through re-location of residence, but daily commute into North Wales.
- Northern Ireland imports very little labour from elsewhere; around 1% from other parts of the UK, and less than 5% from elsewhere (predominantly from its neighbour, the Republic of Ireland).

The proportion of construction workers reporting that they were working in the same region/nation in which they acquired their first construction qualification as they were when interviewed is shown in Figure 32. Great variation can be seen between regions/nations, from 97.8% down to 45.5%. Compared with 2007, a smaller proportion of construction workers on sites in the North East, East Midlands, West Midlands, East of England, and South East had achieved their first construction related qualification in the same region. In contrast, the North West and Greater London construction workforces have seen increases in the proportion of workers who undertook their first construction qualification in the same region as they were working when interviewed.

Figure 32: Where Working When First Qualification was Achieved

Base: Those with a qualification (unweighted base)

	2012 Within current region/nation	2007 Within current region/nation	Higher than average mentions for other regions/nations
	%	%	
Northern Ireland (135)	97.8	94	
Scotland (133)	85.5	84	
North West (204)	85.3	77	
Wales (226)	85.0	87	North West 6%
Yorkshire & Humber (192)	82.6	81	
North East (186)	82.3	90	Yorkshire & Humber 11%
South West (2310)	72.3	71	South East 13%
Greater London (163)	64.3	56	South East 16%, East of England 10%
East Midlands (273)	63.9	78	West Midlands 11%
West Midlands (198)	60.6	83	East Midlands 16%
East of England (170)	49.3	71	South East 14%, East Midlands 14%
South East (173)	45.5	66	London 20%, East of England 9%

Higher than average mentions were given to a small number of neighbouring regions, for example, in the South East, London and the East of England regions were often cited and in the North East, Yorkshire and The Humber received higher than average mentions. These findings suggest that in regional border areas, construction related qualifications are often gained in the neighbouring region.

5.3 Travel to Site

As mentioned above, while most construction workers travel from their permanent home to their current construction site each day. For many this means driving into another region/nation and, for some, distances may be so great or traffic be so bad that they have a temporary residence: mid-week 'digs' or longer term temporary accommodation.

Consequently the survey asked about the location of each worker's permanent home (postcode if known) and distance to site, and for those using temporary accommodation, requested details about the location and distance from the temporary accommodation to site.

5.3.1 Relative Locations of Current Workplace to Home

The majority of construction workers were interviewed on a site that was located within the same region/nation as their permanent home, but the exact proportion working in their region/nation of residence varied.

Unsurprisingly, it is the South East and London that 'import' the greatest proportion of construction workers (39.4% and 37.4% respectively). However, both import the majority of their workers from neighbouring regions, including each other. The East of England, West Midlands and East Midlands are also significant importers of labour, in each case at least three workers in every ten.

Other regions/nations tend to import between one in ten and one in five workers, predominantly from neighbouring regions/nations. However, Wales, Scotland and Northern Ireland have lower levels of labour inflow. While 9.1% of those working on construction sites in Wales come from beyond the nation, two thirds of the incoming labour is from neighbouring regions. Scotland actually sources remarkably little of its imported construction labour force from the northern counties of England that it borders (just 2.0% of its entire workforce, but around one in four of its 'in-flowing' workers).

Northern Ireland has very few workers from beyond the nation: mostly from the Republic of Ireland.

Figure 33: Inter-Regional/National Movement from Permanent Residence to Current Site

Base: All respondents (unweighted base)

REGION/NATION OF CURRENT SITE	2012			2007		
	% from same region/nation	% from different region/nation	% from neighbouring region/nation	% from same Region/nation	% from different region/nation	% from neighbouring region/nation
Northern Ireland (406)	98.5	1.5	1.5	99	1	-
Scotland (409)	92.2	7.8	2.0	92	8	4
Wales (428)	90.9	9.1	6.4	87	13	7
North East (394)	87.3	12.7	12.7	91	9	6
North West (441)	86.5	13.5	12.0	87	13	10
Yorkshire & Humber (399)	85.3	14.7	13.0	84	16	15
South West (408)	82.3	17.7	16.7	78	22	13
East Midlands (408)	69.2	30.8	26.9	77	23	20
West Midlands (403)	68.3	31.7	23.5	87	13	10
East of England (407)	66.9	33.1	26.2	77	23	20
Greater London (410)	62.6	37.4	29.8	68	32	30
South East (420)	60.8	39.2	36.0	68	32	24

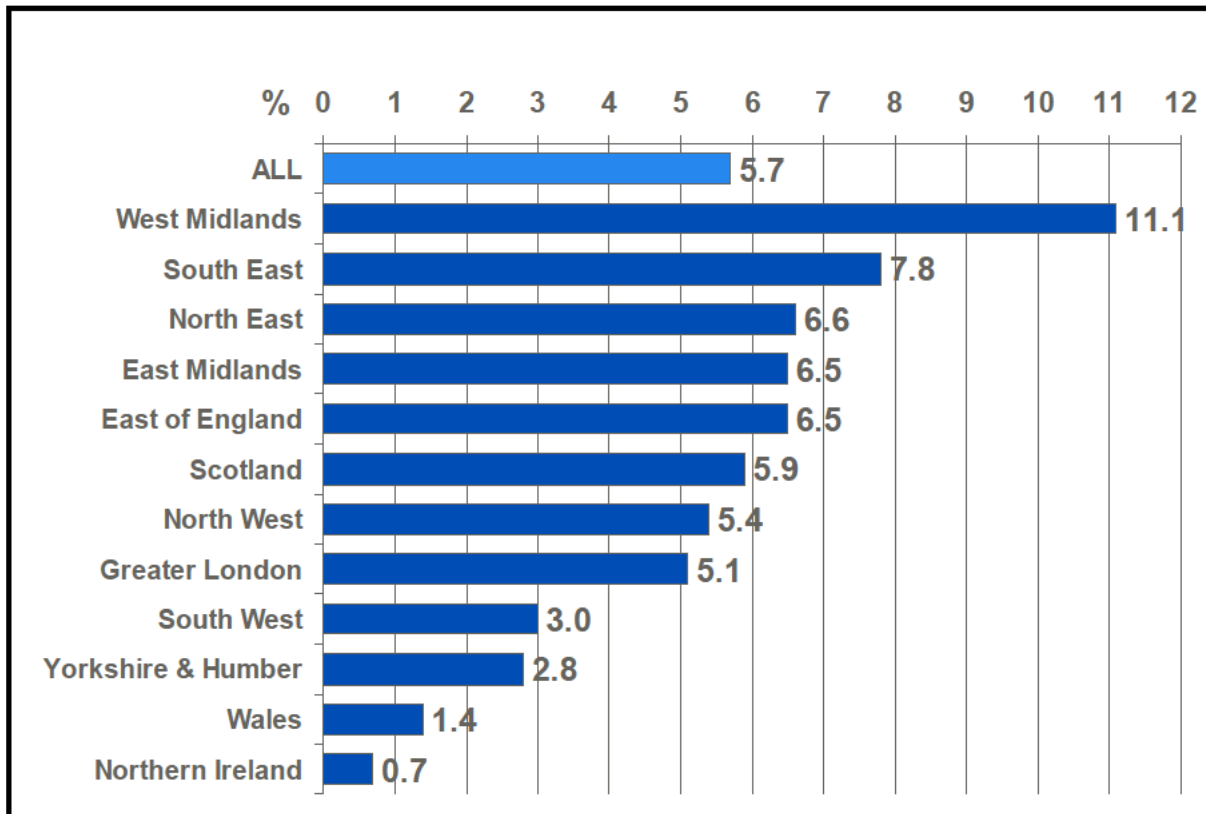
For sites in Northern Ireland, the Republic of Ireland was treated as the only neighbouring nation.

5.3.2 Temporary Accommodation Use

Nationally, one in twenty (5.7%) construction workers reported that they were staying in temporary accommodation. Surprisingly, the greatest proportion was working in the West Midlands: one in ten (11%) workers on West Midland sites reported staying in temporary accommodation.

Figure 34: Percentage of Workers in Temporary Accommodation

Base: All respondents



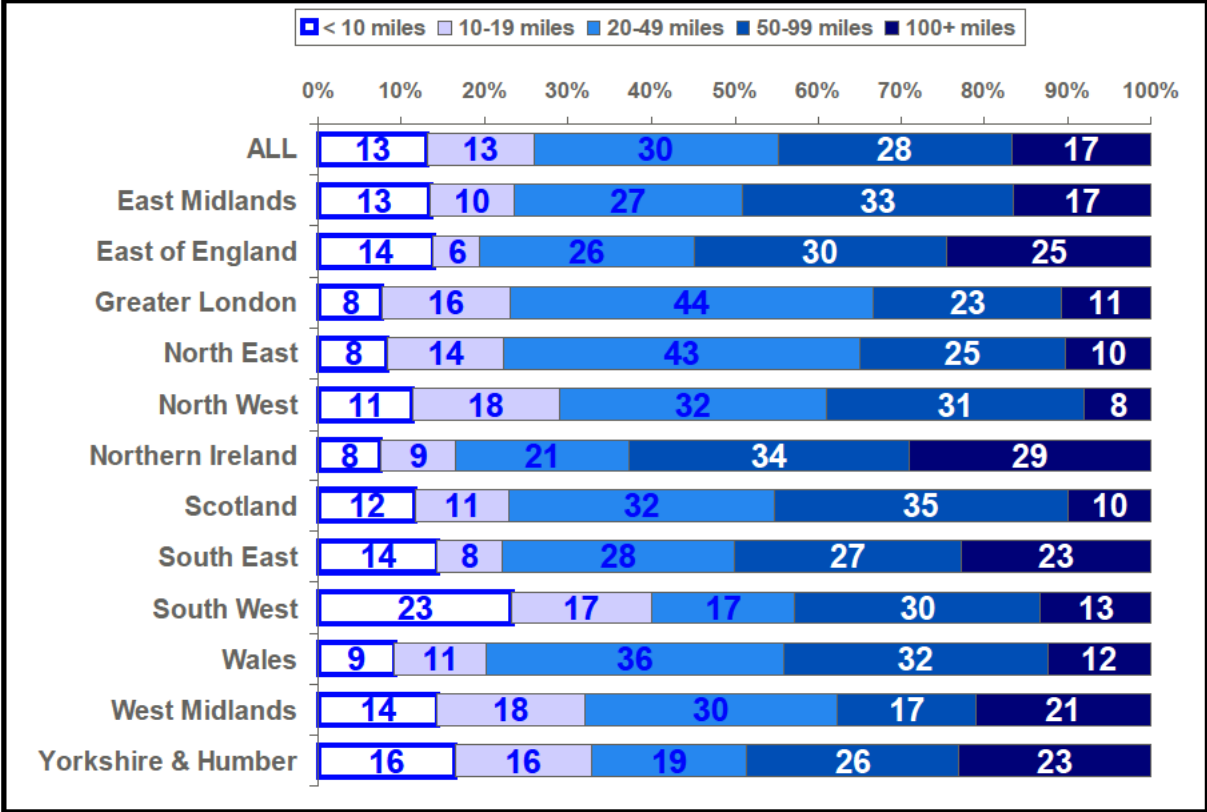
5.3.3 Journey to Work

The average (mean) distance from workers' homes to their current site was 35 miles, compared to a median of 21 miles.

When the reduced distance from temporary accommodation to site was taken into account, construction workers were travelling an average (mean) of 28 miles each way, or a median journey of 20 miles.

As Figure 35 shows, around a quarter (26%) of workers live within 19 miles of the site on which they are currently working; 30% live between 20 and 49 miles away; another 28% live between 50 and 99 miles away (often travelling daily) and 17% live 100+ miles from the current site.

Figure 35: Distance From Home to Work by Region/Nation (current site)
 Base: All respondents giving home address / mileage information



Slight variations can be seen by region/nation. London, the North East and the West Midlands see the greatest proportions of workers living within 50 miles of their current site. However, it is the South West that has the greatest proportion living within 10 miles of the site (23%).

5.4 Site Duration and Change

As mentioned already, while some construction workers may have considerable stability if directly employed by a developer or main contractor on a particularly large project, others face considerable instability from frequent moves between sites, or out of employment as construction firms use the labour available to them as flexibly as possible.

5.4.1 Expected Site/Phase Duration

In order to obtain a snapshot measure of workplace stability, all workers were asked to estimate how long in total they would be working at the same site during the current phase of work if they expected to move on and off the current site in phases (i.e. how long the current 'visit' would it be before they had to travel to a different location for work).

Almost a quarter (23.2%) did not expect to work on site for more than a month, including 7.1% that expected to change site within the next week, in some cases, after just one day.



Two fifths (41.9%) anticipated working on the same site during that phase for more than a month, but no more than a year, and 14.6% expected to work continuously on the same construction site for a year or longer. However, it is important to note that one in five (20.3%) felt that they could not predict how much longer they would be working on the same site, that their agency or employer could send them elsewhere (or end their contract) at any time, regardless of whether the current site still required workers with their own skill set. Hence when combined with those stating that they expected to move site within the next month, more than two fifths of the workforce could not comfortably expect to be travelling to the same site for more than a month (assuming that most respondents saying 'don't know' had reason to expect that their work on the particular site could be terminated at short notice – either to move elsewhere or finish working for that employer).

The occupation groups that were the least likely to have a clear expectation of working at the same site for more than another month were those trades that would be expected to have relatively short durations undertaking specific tasks within certain phases of builds: floorers (66.1%); roofers (49.5%); and painter/decorators (48.3%); also general operatives/ labourers (49.1%) who might be part of a short-phase specialist team, but who also tend to be given the least security by larger companies, which move general operatives around between sites as demand for labour peaks and declines. Numerous labourers reported that they might find themselves circulating between a handful of sites operated by their employer for varying lengths of time, from a day or two, to several months.

5.4.2 Next Site Location

When asked where their next site (after the interview location) was likely to be, seven out of ten workers (69.0%) were fairly confident that it would be within a daily commuting distance. Just one in twenty (4.5%) said that their next site would most likely require them to use temporary accommodation. The remainder were divided roughly two-thirds to one third in saying that it would be up to their employer (but could be beyond daily driving distance) or that they did not know (including the self-employed of fixed-term contract workers who may have to find a new contract).

Three in ten of those who were confident that their next job would take them away from home overnight, did not know in which region/nation of the UK their next construction site would be located.

6 SUB-SECTOR & SECTOR MOBILITY

This final section explores sub-sector mobility (movement between job roles within the construction sector) and how this varies between different groups of construction workers. It also examines the attitudes of construction workers towards their future employment in the sector.

6.1 Sub-Sector Mobility

Workers were asked which (if any) of six types of construction work they had spent significant periods working in (with the potential to add and describe 'others'). Despite stressing significant periods, it seems that some workers were keen to have all types of site they had worked on recorded, even if the duration was relatively short: this is an understandable way for individuals to underline the breadth of their experience. However, there is no reason that this phenomenon would have increased since 2007 and interviewers were briefed to stress 'significance' in 2012. Despite this, in 2012 we see increased proportions of workers reporting having spent significant periods on each type of site except for new housing. This change suggests that construction workers are moving between different types of sites more, suggesting that construction workers are being more flexible about the type of project on which they work as a result of the economic downturn. Many workers commented that it is better to work on a different type of project than to not work at all.

Figure 36: Type of Projects Spent Significant Periods of Career On

Base: All respondents

	2012	2007
Unweighted Base	4,933	3,877
Weighted Base	4,800	3,877
	%	%
New housing	71.7	73
Public non-housing work such as schools, sports facilities, landscaping	59.0	44
Commercial work such as shops, offices, pubs etc	54.7	43
Private industrial work such as factories, warehousing etc	51.0	33
Housing repair and maintenance including extensions / loft conversions	46.6	38
Infrastructure projects - road/rail/airport, water treatment, power stations	37.8	21
One type of project only	23.7	34
Two types of project	16.7	19
Three types of project	14.5	15
Four types of project	13.2	12
Five types of project	15.0	11
All six types of project	15.3	6
Unclear / unsure	1.4	3

Fewer construction workers have worked on infrastructure than any other type of project. Even so, one in three workers have undertaken some work on this category of construction, including painter/decorators finishing airports/railway stations and other infrastructure build.

Less than a quarter of construction workers have only experienced one type of construction project.

Figure 37: Number of Sub-Sectors Worked by Occupation

Base: All respondents (unweighted base)

	1 type	2 types	3 types	4 types	5 types	6 types
Scaffolder (198)	12.0	7.8	11.5	7.3	15.1	45.3
Plasterer (142)	10.7	13.1	21.3	13.1	19.7	21.3
Bricklayer (524)	24.6	14.0	10.5	10.5	18.5	21.1
Floorer (63)	18.8	11.0	6.3	22.0	20.4	20.4
Painter / Decorator (187)	17.4	12.4	10.1	16.9	24.7	18.0
Electrician (422)	10.9	17.4	17.7	18.9	19.2	15.4
Carpenter / Joiner (637)	24.3	15.1	17.2	13.2	15.9	13.4
Plant/Machine Op (348)	22.4	17.2	17.2	14.2	14.8	12.7
Labourer/General op (1,106)	30.6	19.2	13.3	11.3	11.1	12.4
Plumber (279)	21.7	18.3	12.2	16.7	17.9	12.2
Dryliner (181)	26.6	10.2	15.3	18.1	16.4	11.3
Roofer (185)	16.6	23.8	18.1	10.9	18.7	10.4
Banksman (80)	43.9	13.4	3.7	9.8	14.6	8.5

Unsurprisingly, scaffolders were the occupation group most likely to report having spent significant periods of time on all six types of construction site (45.3%), as their work is vital to support all construction work at height, and while a small proportion work within companies that focus on one to two types of construction site, most work in sub-contracting companies that supply scaffolding services to many sites across the sector.

One in five plasterers, bricklayers and floorers had worked on all six types of site (21.3%, 21.1% and 20.3% respectively).

Just one in ten dryliners, roofers and banksmen had worked on all six types of site (11.3%, 10.4% and 8.5% respectively). In fact more than two fifths of banksmen had only worked on one type of construction site – perhaps a factor of banksmen being predominantly required on large sites with significant vehicle/plant movement, and hence a tendency to be employed directly by larger construction companies, and able to remain with the same (possibly, specialist) employer.

6.2 Leaving the Sector

In order to assess the potential outflow from the sector in the next five years (led by worker preference), workers were asked to indicate on a set scale the likelihood of still wanting to work in construction in five years' time. This question was amended slightly from the 2007 survey, which asked how likely they thought it was that they will still be working in construction (i.e. did not explore whether they want to be working in construction as opposed to other industries, just whether they thought they would be).

Only responses from workers aged 59 years and younger are analysed. Those aged 60+ can be assumed to plan to retire within five years (although a small proportion may continue to work beyond 65 years of age). Figure 38 below shows that a small proportion of workers aged under 60 have plans to retire within the next five years (i.e. before they turn 65).

Figure 38: Likelihood of (Wanting) to Work in Construction in 5 Years' Time

Base: Those under 60 years of age

	2012	2007	16-34 years	35+ years
Unweighted Base	4,667	3,877	2,314	2,353
Weighted Base	4,537	3,877	2,274	2,261
	%	%	%	%
Definitely will	31.2	44	31.0	31.5
Very likely	29.1	32	30.1	28.1
Quite likely	18.4	10	19.7	17.2
Quite unlikely	4.1	2	3.6	4.7
Very unlikely	4.5	2	4.2	4.9
Definitely will not	3.0	2	2.6	3.3
Hope to be retired	2.0	2	*	3.6
Don't know	7.6	6	8.5	6.8
Total	100	100	100	100

When comparing findings from 2012 with those from 2007 there appears to be lower proportions selecting the most positive predictions for the future ('definitely will' and 'very likely'). However, due to the changes in question wording, caution must be taken when comparing findings between the surveys.

Figure 38 also shows that age has little influence on workers' assessment of whether they will still want to be working in construction in five years' time, except for the proportion indicating that they hope to retire within five years.

7 THE UK CONSTRUCTION WORKFORCE 2012 SUMMARY

Employment in SIC 45 has declined from 2,387,495 in 2007, to 2,130,010 in 2011³: a decline of 12% in five years. While the challenging economic climate has seen the UK construction workforce decline since 2007, the sector has to some extent been buffered by large scale public sector works. In 2012, we see some return of confidence in the market, and investment in housing and public building. For example while there has been a hiatus in commissioning school-build projects (since the cancellation of new Building Schools for the Future projects in the General Election), construction of pre-commission projects is continuing, and a new (albeit less ambitious) programme has recently been announced.

The UK manual job-role construction workforce in 2012 is still very much dominated by white males, but a lower proportion is aged 16-24 than was the case in 2007: showing that fewer school/college leavers have moved into the sector in recent years. This is further evidenced by the fact that just one in five workers today has no more than 5 years' construction experience, compared with one in three workers five years ago. A significant proportion of the workforce has moved from being directly employed by construction firms to self-employment (frequently working for a single firm long-term), but use of agency workers has remained near static.

The large proportion of construction workers reporting that they hold at least one of the recognised skills cards/certificates has increased dramatically from two thirds (68%) in 2007 to 97.3% today. Almost half of construction workers report holding a construction-specific qualification: seven out of ten of those list their main qualification as being an NVQ/SVQ: mostly levels 2 or 3. Uptake of training in supervisory/management skills has increased for staff in supervisory roles, from 53% to 71%, and more of this training is out-of-house and accredited.

More than two thirds of today's construction workers have never worked in any other industry. A fifth of workers have moved around the construction industry and have undertaken at least two types of job role: generally with closely correlating skills, or by retraining for a higher skilled 'craft' role.

When asked about their choice of region/nation they work in, two fifths gave an answer relating to family reasons (such as 'I grew up here' or 'I followed my family/partner here'). A third of the workforce have worked in the same region/nation for their entire construction career, a lower proportion than in 2007. Two thirds were interviewed on construction sites in the same region/nation in which they were living when they started working in the construction sector.

The South East and London 'import' the greatest proportion of construction workers, predominantly from neighbouring regions. Around a quarter of workers live within 19 miles of the site on which they are currently working; but 45% live more than 50 miles from their current site. One in twenty workers reported that they were staying in temporary accommodation. The average (mean) distance from workers' homes to their current site was 35 miles (median 21 miles): use of temporary accommodation nearer to the site by one in twenty workers reduced the daily commute to an average (mean) of 28 miles each way (median 20 miles).

One in five could not predict how much longer they would be working on the same site and almost a quarter (23.2%) of interviewees did not expect to remain at the same site for more

³ Labour Force Survey, UK Construction Industry Workforce SIC45 time-series

than another month. However, three in twenty expected to stay for at least another year in the same location.



APPENDICES

(provided in a separate document)

Appendix 1 – Questionnaire

Appendix 2 – Showcards

Appendix 3 – Additional data tables