



**Workforce Mobility and Skills in
the UK Construction Sector 2012
Northern Ireland**

for

CITB-ConstructionSkills

by

Babcock Research

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Workforce Mobility and Skills in the UK Construction Sector 2012 Northern Ireland

Clare Lambley & Donna James

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Babcock Research

Merchant House
11a Piccadilly
York, North Yorkshire
YO19WB

666 North Row
Central Milton Keynes
MK9 3AP

Tel 01904 656655

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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. In Northern Ireland 406 interviews were conducted.

PROFILE OF THE SAMPLE

As expected, the vast majority of construction workers in manual roles interviewed were male (99.8%).

The youngest workers (16-24 year olds) account for less than two in ten (17%) of the construction workers surveyed in Northern Ireland. 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.

One third of interviewees (33%) were aged between 25 and 34; 21% aged 35-44 years; 18% aged 45-54 years, and workers aged 55+ account for less one in ten (8%) interviewees.

The majority (98%) of construction workers interviewed were of White origins: 37% described themselves as White British; 60% as White Irish, and 1% as 'White other'. The sample of workers of black/minority ethnic (BME) origin was too low to report. BME representation appears to be lowest in Northern Ireland, North East, North West and Yorkshire & Humber regions, and highest in the East of England and West Midlands.

The most common occupation of interviewees in Northern Ireland was bricklayer (16%), followed by general operative/labourer (a very broad SOC category, encompassing many roles, including groundworkers): one in six (15%) of workers. Other common job roles were electrician (14%) and carpenter/joiner (12%).

In Northern Ireland, half (52%) are directly employed by a company and a slightly smaller proportion being self-employed (47%): this shows some movement from agency work to both direct employment and self-employment since 2007, when the figures were 48% and 46% respectively. Just 1% of construction workers in Northern Ireland in 2012 were employed by an agency.

WORK HISTORY

Time in the Sector

In Northern Ireland, one in eight (14%) workers had no more than 5 years of construction experience, including 6% with less than 2 years' experience. Nearly three workers in ten (27%) had in excess of 20 years' experience working in construction.

In the UK, 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.

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

Nine out of ten of those surveyed in Northern Ireland (89%) had never worked outside of the construction industry (mostly without periods of unemployment, although 7% said that they had experienced periods out of work).

Previous Non-Construction Jobs

Fewer than one in ten construction workers in Northern Ireland started work in another sector immediately after leaving full-time education and before moving into construction work compared with almost a quarter (23%) across the UK.

Age has little influence on the likelihood of having worked in another sector before construction (7% of both 16-34 year olds and of those aged 35+), number of years in construction shows a stronger

relationship, thereby suggesting that the sector is still attractive to career switchers.

The most common jobs in the UK 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

In Northern Ireland 7% of workers had undertaken more than one type of construction occupation, a much lower proportion than the UK average (22%).

Around the UK 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 UK-wide are:

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

QUALIFICATIONS & SKILLS

Skill Cards / Certificates

UK-wide the vast majority (97.3%) of construction workers interviewed in this survey were clear that they held at least one of the recognised skill cards/certificates a large increase since 2007 (68%). In Northern Ireland, all workers interviewed (100%) stated that they had a skill card/certificate, an increase of 16 percentage points from 2007. The proportion of construction workers holding a skill card/certificate suggests that it is now a prerequisite of employment on most sites.

Construction-Specific Qualifications

Just over half (56%) of workers in Northern Ireland hold construction-specific qualifications: compared with the UK average of two thirds (65%).

Across the UK, agency workers are significantly less likely than average to have a construction qualification (34%) compared to both those who are employed (49%) and those who are self-employed (44%). Migrant workers are also less likely than average to hold a construction qualification (33%).

In Northern Ireland, those who are employed are slightly less likely to have construction qualifications (53%) than those who are self-employed (59%). Workers who have been in the sector for less than two years are much less likely than average to have achieved a construction-specific qualification (25%); many, but not all, will be undertaking qualifications (including through an apprenticeship programme).

Across the UK, 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 Northern Ireland in 2012, 73% of those with a construction-related qualification reported that their main qualification was an NVQ/SVQ: this compares with 71.3% for the UK as a whole.

A further 20% of those with qualifications in Northern Ireland had a City and Guilds qualification as their main construction qualification.

Just over half (56%) of construction workers in Northern Ireland reported holding a construction related qualification.

A relatively low proportion (2%) of construction workers in Northern Ireland are qualified to level 1 only. The majority have either a level 2 (13%) or a level 3 (37%) qualification. Just 3% of all manual workers in Northern Ireland are qualified to level 4.

Basic Skill Needs

Workers' self-assessed need for training in basic skills has remained roughly static between 2007 and 2012, with around one in six of the Northern Ireland workforce stating that they require training in one or more basic skill (16%).

UK data reveals 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 6% workers in Northern Ireland said that they were working towards additional construction qualifications at the time of the interview compared with 17% in 2007 but in line with the UK average. This reduction may be indicative of a slow-down in recruitment of new workers.

UK-wide, 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% UK) and 1-2 years (35% UK) (NI base too low)
- Younger workers: 16 -19 years (56% NI) and 20-24 years (13% NI).
- Those who are directly employed by a company (10.4% NI).
- Certain trades in the UK: electricians (21.5%), window fitters (20.7%) and scaffolders (19.4%).

Supervisory/Managerial Training

In Northern Ireland the proportion of construction supervisors/managers in partially manual roles who had received some sort of formal training for staff

supervision had decreased dramatically since the previous survey (52% in 2012 compared to 67% in 2007), bucking a UK trend. In addition, fewer reported receiving in-house training (27% in 2007; 10% in 2012).

GEOGRAPHIC MOBILITY

Work History in Northern Ireland

All workers were asked why they were working in the area in which they were interviewed. In Northern Ireland, two fifths (38%) said that there were more opportunities in 'this area' (Northern Ireland). A quarter said their employer had sent them there (24%). One in ten (10%) gave an answer relating to family reasons.

This profile differs to the UK-wide results in which 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.

A high proportion of the workforce in Northern Ireland had worked there for their entire construction career (73%), an even higher proportion than in 2007. This compares to a UK average of 33% having worked in the same region/nation their entire career. In Northern Ireland, a further fifth (19%) 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.

In Northern Ireland, the proportion of workers that had also begun their

construction career when living there was the highest in the UK at 96%.

Inter-Regional/National Mobility

Northern Ireland is one of the regions/nations with the most stable workforces (i.e. importing the lowest proportions of workers) along with 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 (39.4% 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. Wales, Scotland and Northern Ireland have lower levels of labour inflow.

Less than a fifth (17%) of workers on sites in Northern Ireland live within 19 miles of the site on which they are currently working; 21% live between 20 and 49 miles away; another 34% live between 50 and 99 miles away (often travelling daily) and 29% live 100+ miles from the current site.

The average (mean) distance from workers' homes to their current site was 38 miles, compared to a median of 35 miles.

Northern Ireland had the lowest level of temporary accommodation use in the UK: <1% compared to the UK average of 5.7%.

The reduced distance from temporary accommodation to sites made very little difference overall in the Northern Ireland, construction workers were travelling an average (mean) of 37 miles each way, or a median journey of 35 miles.

Site Duration and Change

Asked about their next site, almost four fifths (79%) of interviewees in Northern Ireland were fairly confident that the next site would be in daily commuting distance. Just 6% stated that their next site would require them to use temporary accommodation.

In Northern Ireland 7% did not expect to continue to work on their current site for more than another month, including 1% that expected to change site within the next week, in some cases, the next day. Nearly a half (47%) anticipated continuing on the same site during that phase for more than a month, but no more than a year, and 26% expected to remain on the same construction site for another year or longer.

SUB-SECTOR & SECTOR MOBILITY

Sub-Sector Mobility

Four in ten (43%) workers have spent significant periods of time on more than one type of construction work. In fact, 9% 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. Three in five (61%) said that they definitely would want to remain in the sector, and a further 17% felt that they were very likely to. Just 8% 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 major UK-wide mobility survey of construction workers, closely mirroring surveys previously conducted in 2007 and 2004. This report presents findings from Northern Ireland, compared with the UK and with itself in 2007.

Results from the 2012 survey have been compared to those from previous research conducted in 2007, where such data is available and comparable.

A separate report is available for the whole of the UK construction workforce. A technical appendix also provides greater methodological detail (including copies of questionnaires and showcards) and national data tables broken down by numerous factors.

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, with targets to split the sample equally between the 12 regions/nations of the UK.

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 used 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 (from Babcock Research / Swift Research), 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 details on the on-site interviewing process (and challenges) are 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. Subsequently, at the analysis stage weighting factors were applied to survey data to ensure that in UK-wide 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	Construction Workforce [†]
UK	293	4933	16.8	100%
East Midlands	30	408	13.6	6.9%
East of England	30	407	13.6	10.8%
London	21	410	19.5	11.0%
North East	26	394	15.2	4.2%
North West	24	442	18.4	10.3%
Northern Ireland	14	406	29.0	2.9%
Scotland	25	409	16.4	8.8%
South East	32	420	13.1	15.5%
South West	24	407	17.0	8.8%
Wales	22	428	19.5	4.7%
West Midlands	16	403	25.2	8.1%
Yorkshire & Humber	29	399	13.8	8.0%

† LFS- see footnote 1 below

When recruiting sites, a minimum of 10 workers expected on site was set. Figure 2 shows that just 5 sites of the minimum size were recruited. Almost half of the sites recruited and visited were expected to have between 11 and 25 workers on site most days (including sub-contractor personnel).

¹ Labour Force Survey, ONS, Four Quarter Average SIC 92 45, Summer 2010 to Spring 2011

Figure 2: Estimated Number of Workers on Site by Number of Interviews (UK)

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

Across the UK a total of 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 in the UK.

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 UK-wide 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 (UK)

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 (unweighted and weighted) 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 unweighted bases and weighted bases (UK-wide only) 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 in Northern Ireland were male: only one respondent out of 406 in Northern Ireland was female. Male dominance is greater in the survey sample (UK – 99.3%) than in the UK construction workforce as a whole (89.6% 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 in Northern Ireland, presenting comparative data from the 2007 survey and the UK construction workforce. Further UK-wide breakdowns are presented in Appendix Tables 1 & 2.

Figure 4: Age Profile of the Sample

Base: All respondents

	NI 2012	NI 2007	UK 2012 [†]
Unweighted Base	406	263	4,933
Weighted Base	n/a	n/a	4,800
	%	%	%
16 - 19	4	8	3.5
20 - 24	13	16	14.5
25 - 34	33	26	29.4
35 - 44	21	25	23.8
45 - 54	18	16	17.9
55+	8	8	9.9
Total	100	100	100

[†]UK-wide data from this survey.

² Labour Force Survey, ONS, Four Quarter Average SIC 92 45, Summer 2010 to Spring 2011.

The youngest workers (16-24 year olds) account for 17% of the construction workers surveyed in 2012: including 4% of interviewees who were aged 16 to 19. This compares with 18% of construction workers in the UK being aged 16-24 years, including 3.5% aged 16 to 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.

A third of interviewees (33%) 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 21% of the sample; 45-54 year olds accounting for 18% and workers aged 55+ accounting for 8% 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 may 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 (98%) of construction workers interviewed in Northern Ireland were of White origins (94.9% UK-wide). Just over a third (37%) described themselves as White British; 60% as White Irish, and 1% 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

Base: All respondents

	NI 2012	NI 2007	UK 2012	Construction Industry (Manual Roles) †
Unweighted Base	406	263	4,933	2,130,010
Weighted Base	n/a	n/a	4,800	n/a
	%	%	%	%
White	98	99	94.9	96.0
Black	0	0	1.7	4.0
Asian	0	0	1.4	
Other/not stated	2	*	0.9	
Total	100	100	100	100

† Source: Labour Force Survey, ONS, Four Quarter Average SIC 92 45, Summer 2010 to Spring 2011

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. The BME sample size in Northern Ireland is too low to report.

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

Base: All respondents

	BME in Survey 2012	BME in Survey 2007	BME in Construction Industry (Manual Roles) [†]	Nation/region's resident BME population (16-64) ^{††}
Unweighted UK Base	4,933	3,877	2,130,010	4,620,700
Weighted UK Base	4,800	3,877	n/a	n/a
	%	%	%	%
UK	3.9	3	4.0	11.6
East Midlands	2.4	2	2.5	10.2
East of England	4.2	3	1.4	7.8
Greater London	11.6	10	19.3	36.3
North East	*	*	0.5	4.4
North West	1.7	1	1.6	8.8
Northern Ireland	*	0	0.0	1.4
Scotland	1.2	0	1.3	3.6
South East	3.1	3	2.3	8.3
South West	1.2	2	1.3	3.5
Wales	*	1	0.7	3.8
West Midlands	8.7	7	8.3	15.0
Yorkshire & Humber	1.4	4	1.7	9.3

[†] Source: Labour Force Survey, ONS, Four Quarter Average SIC 92 45, Summer 2010 to Spring 2011

^{††} 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 'general operative/labourer' 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 common occupation of interviewees in Northern Ireland was bricklayer (16%), closely followed by general operative/labourer (a very broad SOC category, encompassing many roles within construction, including groundworkers): 15% of workers (22.4% UK). 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 'general operative/labourer'.

Common job roles were:

- Electrician (NI 14% - UK 8.2%)
- Carpenter/joiner (NI 12% - UK 13.2%).

Figure 7: Occupational Profile

Base: All respondents

	NI 2012	NI 2007	UK 2012
Unweighted Base	406	263	4,933
Weighted Base	n/a	n/a	4,800
	%	%	%
General op/ labourer	15	21	22.4
Carpenter / joiner	12	15	13.2
Bricklayer	16	9	10.1
Electrician	14	10	8.2
Plant/machine operative	9	13	2.5
Plumber (inc heating & air con)	8	5	1.9
Roofer	2	3	4.0
Scaffolder	6	2	4.0
Dryliner	3	With plasterer	3.7
Painter and decorator	2	6	3.7
Technical (e.g. Surveyor, Maintenance Tech)	1	n/a	2.6
Steel erector / rigger	1	n/a	2.6
Plasterer	4	7	2.5
Pipe fitter	1	2	2.4
Banksman	1	1	1.7
Floorer	*	1	1.3
Ceiling fixer	1	With plasterer	1.2
Window fitter / glazier	1	n/a	1.2
Welder	0	1	0.6
Mechanical fitter	*	n/a	0.6
Manager/supervisor	1	7	0.6
Other	*	n/a	*
Total	100	†	100

† Data from 2007 totals more than 100% due to a small amount of multi-coding of occupation groups that cannot be disaggregated retrospectively.

Half (52%) of workers in Northern Ireland are directly employed by a company and a similar proportion (47%) are self-employed (47.5% and 46.0% respectively in the UK, where a further 6.5% are working for an agency). Northern Ireland has seen a significant reduction in direct employment by companies since 2007 (52% compared with 72% in 2007): this 20 percentage point reduction is even greater than the 16 percentage point reduction seen in the UK as a whole over the same timeframe. While direct employment has decreased, there has been a reciprocal increase in self-employment in Northern Ireland (20 percentage point increase from 27% in 2007 to 47% in 2012), while the UK as a whole saw a slight increase in Agency work from 5% to 6.5%.

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

	NI	UK	Years working in construction			
	2012 %	2012 %	< 1 %	1-2 %	3-4 %	5+ %
Unweighted Base	406	4,933	11	12	17	363
Weighted Base	n/a	4,800	n/a	n/a	n/a	n/a
	%	%	%	%	%	%
Employed by a company	52	47.5	-	-	88	48
Self-employed	47	46.0	-	-	12	51
Work for an agency	1	6.5	-	-	0	1
Other (e.g.) placement	0	*	-	-	0	0
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. 27.9% of workers in the UK who have been in the industry for 1-2 years are self-employed, compared with 48.1% of those who have been in the industry for 5 or more years.

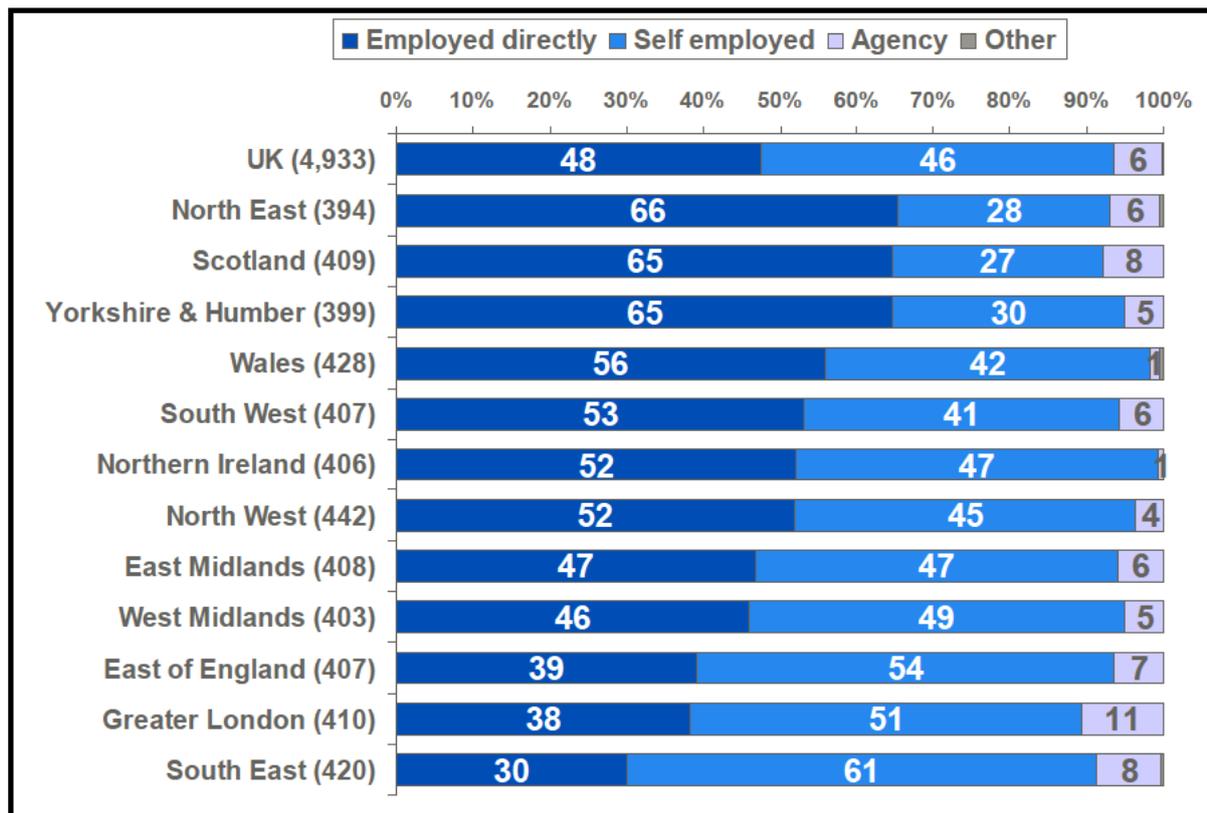
Geographical variations in employment status are shown in Figure 9. Two thirds of workers in the North East, Scotland and Yorkshire & Humber are employed directly by a company.

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.

In Northern Ireland, 14% had no more than 5 years of construction experience (including 6% with less than 2 years' experience); whereas 27% 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 were found in 2012.

Although 26% of those interviewed in 2007 had a maximum of five years' construction experience, in 2012 this proportion had fallen to just 14%.

Across the UK, one in five workers (21%) 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.

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

Base: All respondents

	NI 2012	NI 2007	UK 2012
Unweighted Base	406	263	4,933
Weighted Base	n/a	n/a	4,800
	%	%	%
Less than 6 months	1	2	1.2
Up to 1 year	3	5	3.7
Up to 2 years	6	12	8.5
Up to 5 years	14	26	21.0
Up to 10 years	39	46	43.8
Up to 20 years	71	73	69.0
More than 20 years	27	27	29.9

Agency workers in the UK 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: only 5% of the self-employed in Northern Ireland 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

Nine out of ten (89%) of those surveyed in Northern Ireland had never worked outside of the construction industry (mostly without periods of unemployment, although 7% said that they had experienced periods out of work, but had not turned to other sectors). Just 4% had started their working lives in construction, but had also taken employment in other sectors during their careers. These proportions were broadly similar to the picture in 2007 but differ from the UK as a whole, where more than three in ten have worked beyond the sector.

Fewer than one in ten (7%) 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 29% reported in 2007).

Age has little influence on the likelihood of having worked in another sector before construction (7% of both 16-34 year olds and of those aged 35+), number of years in construction shows a stronger relationship, thereby suggesting that the sector is still attractive to career switchers.

Agency workers are the most likely to have started work in another sector: 33% compared with 9% for those employed by a company, and 4% for the self-employed. Construction workers with the highest levels of construction-related qualifications are the least likely to

have switched sector: none of those qualified to NVQ/SVQ level 4 or higher began work in another sector; 5% of those at level 3; 4% of those at level 2, and none 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 UK 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 were mentioned across the UK as a whole. 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.

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 fifth of Northern Ireland based workers who had worked outside construction had worked in some sort of 'Elementary Occupation' (21%) and 43% had worked in 'Skilled Trades' (33.4% and 34.0% respectively in the UK as a whole).

Just over one in ten (7%) had worked in an 'Associate Professional & Technical' role outside of construction, many of whom would have skills that were transferable to the construction role they later undertook.

Figure 11: 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

	NI 2012	UK 2012
Unweighted Base	28	1,113
Weighted Base	n/a	1150
	%	%
SOC 1 – Managers, Directors, and Senior Officials	7	4.7
SOC 2 – Professional Occupations	0	2.8
SOC 3 – Associate Professional and Technical	7	11.8
SOC 4 – Administration & Secretarial	0	3.7
SOC 5 – Skilled Trades	43	34.0
SOC 6 – Caring, Leisure & Other Service Occupations	0	1.6
SOC 7 – Sales & Customer Service	14	12.4
SOC 8 – Process, Plant & Machine Operators	14	21.3
SOC 9 – Elementary Occupations	21	33.4

Multiple responses included

Further UK-wide analysis (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.

In Northern Ireland, 7% of workers had undertaken more than one type of construction occupation. Over the UK, 21.7% of workers had undertaken more than one type of construction occupation: a third (35.4%) have undertaken at least two different construction roles, often more.

As might be expected, the rate of switching varies considerably by current occupation group: further analysis is provided in the UK report.

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 skill 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 Register (CSR) card or 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 skill cards/certificates and what these were.

Figure 12: 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, 100% of construction workers interviewed in Northern Ireland were clear that they held at least one of the recognised skill cards/certificates (97.3% in the UK). 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 12 (above) shows, the proportion of construction workers that holds a skill card/certificate has increased dramatically since 2007 (84%), suggesting that it is now a pre-requisite of employment on most sites (many sites 'signing in' books require the worker's CSR/CSCS card number to be recorded as they sign in each day). Northern Ireland now ranks equal 1st (with North West) out of the 12 regions/nations for penetration of skill cards/certificates.

In the UK as a whole 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 CSR/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). This finding does not apply to Northern Ireland since it has 100% coverage.

Figure 13: Whether Have a Skill Card/Certificate by Other Variables

Base: All respondents (unweighted base for Northern Ireland)

	NI 2012	NI 2007	UK 2012
Unweighted Base	406	263	4,933
Weighted Base	n/a	n/a	4,800
	%	%	%
ALL (406)	100	84	97.3
<1 year in construction(11)	-	22	89.4
1-2 years(12)	-	82	86.4
3-4 years(17)	100	87	95.9
5+ years (363)	100	88	98.4
16 - 19 (18)	100	73	86.1
20 – 24 (54)	100	74	95.4
25 – 44 (222)	100	89	98.6
45+ (108)	100	83	97.2
Employed directly (212)	100	83	96.8
Self-employed (191)	100	87	98.7
Agency (3)	-	n/a	91.9

Bases shown within tables are weighted bases

Again across the UK, given the high penetration of skill cards/certificates (particularly the CSR/CSCS and its affiliate schemes) it is not surprising that there is very little variation in the proportions that have skill cards/certificates between different occupation groups.

Figure 14 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 CSR/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 CSR/CSCS, and therefore they told the interviewer that their card was a CSR/CSCS (although when they got it out to check the colour, it could be seen to be from another scheme).

Figure 14: Type of Skill Card/Certificate Held

Base: All respondents

	NI 2012	NI 2007	UK 2012
Unweighted Base	406	n/a	4,933
Weighted Base	n/a	n/a	4,800
	%	%	%
CSR (Construction Skills Register) (NI) / CSCS (Construction Skills Certification Scheme) (GB)	100	n/a	91.8
CPCS (Construction Plant Competence Scheme)	3	n/a	11.1
CISRS (Construction Industry Scaffolders Records Scheme)	1	n/a	3.0
Gas Safe Register [†]	0	n/a	1.4
JIB ECS (Electrotechnical Certification Scheme)	0	n/a	1.2
CTA (Certificate of Training Achievement)	1	n/a	1.1
Engineering Services SKILLcard	0	n/a	1.0
SafePass	2	n/a	0.6
Other	2	n/a	6.9
Don't know	0	n/a	0.5
None	0	n/a	2.7

Multiple responses included

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

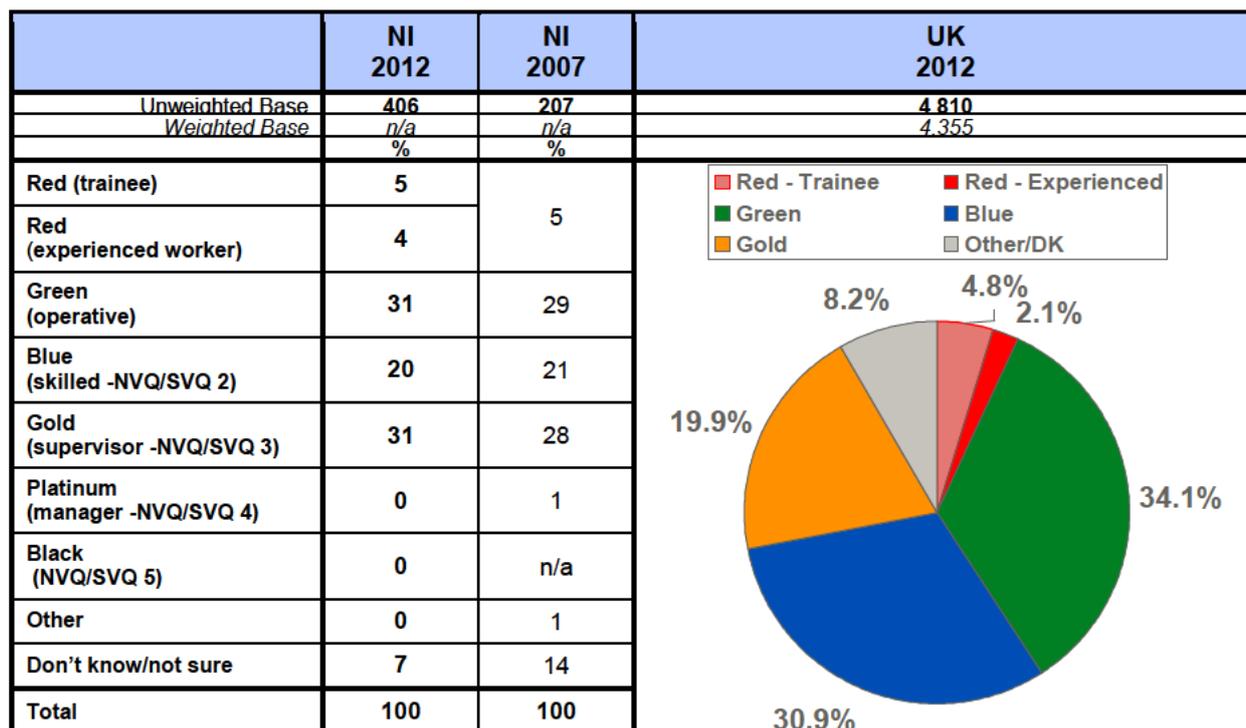
All construction workers interviewed in Northern Ireland hold a CSR or CSCS card (or an affiliate card that they know equates to a CSR/CSCS card), compared with 91.8% in the UK. The possession/attainment of other cards is much less widespread, as would be expected, since other cards tend to be more specific to specialist trades/sub-sectors e.g. scaffolding than the CSR/CSCS card.

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 15 below shows that awareness of the colour/level of CSR/CSCS cards held has increased among card holders since 2007, and the strongly coloured cards now being issued is an important factor in this.

Figure 15: Type of CSR or CSCS Card Held

Base: Those with CSR or CSCS cards



Three in ten of the workforce in Northern Ireland (31%) holds the green (operative) card; two in ten (20%) hold the blue (skilled NVQ/SVQ 2) card; and a further three in ten (31%) hold 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. The distribution of CSR/CSCS card types in Northern Ireland varies from the UK distribution shown in the pie chart above: with a lower proportion holding a blue card and greater proportion holding a gold card, suggesting a more highly qualified/skilled workforce than in the UK as a whole.

The distribution has not changed significantly since 2007.

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).

Just over half (56%) of construction workers in Northern Ireland reported holding some sort of construction-specific qualification, a little lower than in the UK as a whole (65.0%): Figure 19 shows the variation in qualification penetration between groups of construction workers, and further detail can be seen in Appendix Table 8.

Figure 16: Whether Hold Any Construction-Specific Qualification

Base: All respondents

	NI 2012	NI 2007	UK 2012
Unweighted Base	406	246	4,933
Weighted Base	n/a	n/a	4,800
	%	%	%
ALL (406)	56	46	45.7
<1 year in construction(11)	-	16	10.7
1-2 years(12)	-	41	18.3
3-4 years(17)	75	48	39.6
5+ years (363)	57	48	49.6
16 - 19 (18)	17	48	21.7
20 – 24 (54)	68	62	37.7
25 – 44 (222)	61	53	47.9
45+ (108)	49	18	48.4
Employed directly (212)	53	43	48.9
Self-employed (191)	59	58	44.2
Agency (3)	-	n/a	34.0

Workers who have been in the sector for less than two years are much less likely than average to have achieved a construction-specific qualification (25%): 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 (17% of 16-19 year olds).

In Northern Ireland, those who are employed are slightly less likely to have construction qualifications (53%) than those who are self-employed (59%). Data from the UK suggests that fewer agency workers have qualifications: however, there is insufficient data from Northern Ireland to assess whether the national trend is replicated here.

Figure 17 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 17: Whether Hold a Construction-Specific Qualification by Occupation

Base: All respondents (unweighted UK 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 17) 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 Northern Ireland in 2012, 73% of those with a construction-related qualification reported that their main qualification was an NVQ/SVQ: this compares with 71.3% for the UK as a whole.

A further 20% of those with qualifications had a City and Guilds qualification as their main construction qualification. Other types of qualifications were rarely reported as the main type (see Figure 18 for a full breakdown).

Some interesting changes can be seen to have occurred in the last five years within Northern Ireland. The proportion of workers with an NVQ/SVQ increased from 61% to 73% between 2007 and 2012, an increase of 12 percentage points. In contrast, there was a decrease of 5 percentage points in workers holding a City and Guilds qualification as their main qualification.

Figure 18: Main Type of Construction Specific Qualification Held

Base: Those with a qualification

	NI 2012	NI 2007	UK 2012
Unweighted Base	135	112	2,284
Weighted Base	n/a	n/a	2,196
	%	%	%
NVQ/SVQ	73	61	71.3
City & Guilds	20	25	17.1
Construction Award	1	2	*
Apprenticeship	1	6	0.9
HNC/HND/BTEC Higher	1	2	1.3
Degree	2	0	0.6
Other	1	n/a	2.9
Don't know/not sure	0	n/a	5.6
Total	100	100	100

So far, this section has examined the penetration and type of qualifications held by construction workers. Figures 19 and 20, over the page, focus on the level of qualification (on the National Qualification Framework) that construction workers have reached, by occupation and region/nation.

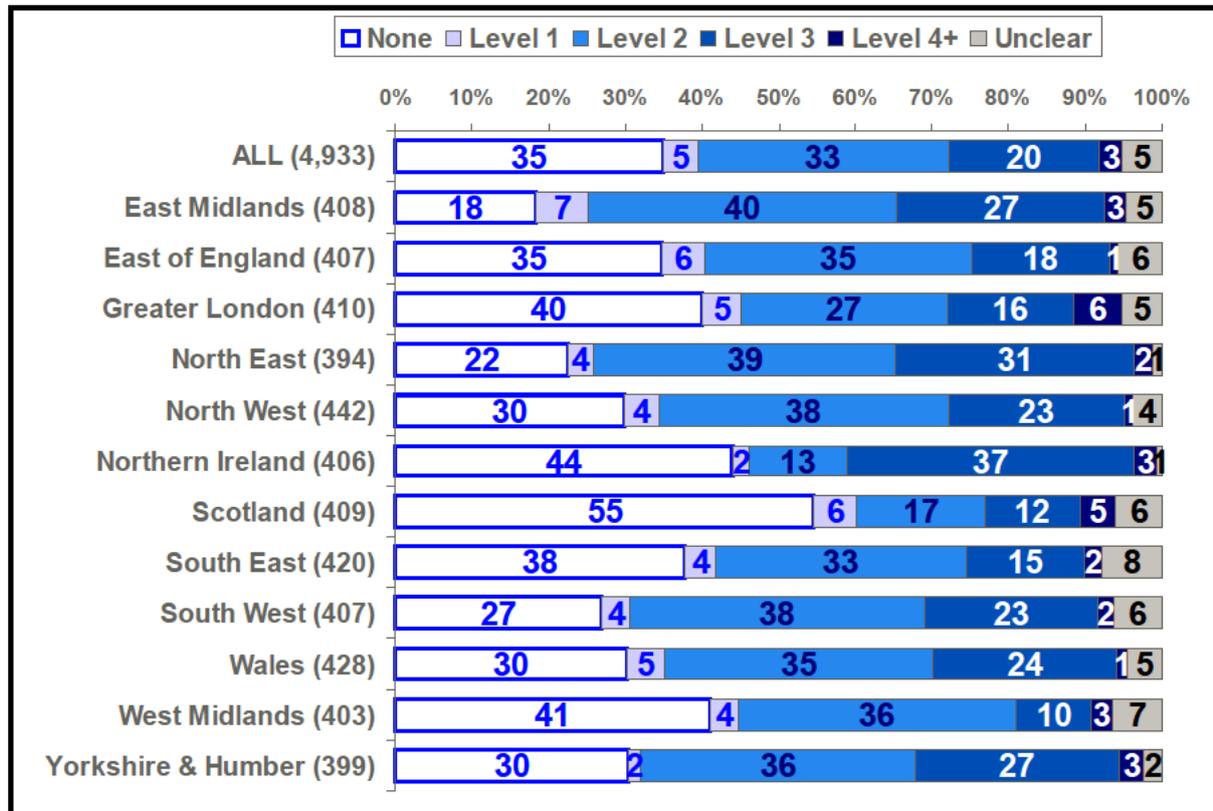
Just over two fifths (44%) of workers in Northern Ireland did not have a construction-related qualification (higher than the UK average of 38%). A relatively low proportion (2%) of construction workers in Northern Ireland are qualified to level 1 only. The majority have either a level 2 (13%) or a level 3 (37%) qualification (32% and 20% respectively in the UK) – figures may differ slightly to chart due to weighting.

There are some interesting variances in the current qualification levels of the workforce by region/nation (see Figure 19). Scottish workers (55%) are most likely to have no current qualification to report. 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.

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

Figure 19: Current Qualification Level by Region/Nation

Base: All respondents



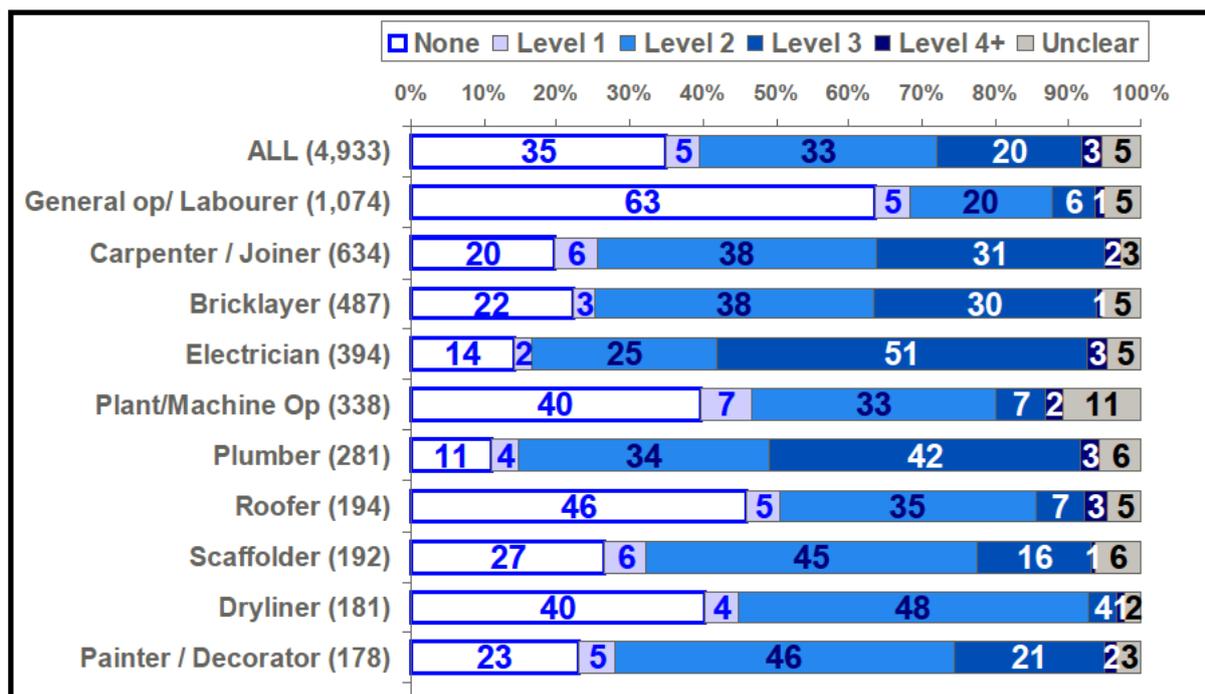
Across the UK as a whole, workers undertaking unskilled and relatively low-skilled tasks such as labourers/general operatives are least likely to have a construction qualification. Of those who do, one fifth (20%) have a level 2 qualification. Just under half of all roofers (46%) and two in five plant/machine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

There is variability in the proportion of the UK workforce with a level 2 qualification by occupation, ranging from 20% for general operatives/labourers to 48% for 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 occupation groups, fewer than 5% of workers in the UK are qualified to level 4.

Figure 20: Current Qualification Level by Occupation (UK)

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

The self-assessed need for training in basic skills for workers in Northern Ireland has remained roughly static between 2007 and 2012, with around one in six of the workforce stating that they require training in one or more of these areas (see Figure 21). There have been limited changes in the last five years in workers' view on whether each type of training would help them in their work, except for a clear reduction for training in 'speaking English'.

Figure 21: Self-Assessed Need for Training in Basic Skills

Base: All respondents

	NI 2012	NI 2007	UK 2012
Unweighted Base	406	263	4,933
Weighted Base	n/a	n/a	4,800
	%	%	%
Any need identified	16	17	19.7
Maths	9	7	10.3
Reading	7	10	9.1
Writing	7	8	8.8
Speaking English	4	14	8.0

Multiple responses included

Further analysis shows that older workers (35+) are a little less likely to report that they would benefit from training in any basic skill (15%). Those aged 35+ are also less likely to be open to receiving support with Maths (7%) than younger workers aged under 35 (11%).

Those with a supervisory/management role (10%) are less likely to feel they require any basic skills training than those with no supervisory/management responsibilities (7%). Also, those with higher qualifications (7% at level 4) are less likely than the average to feel they could benefit from any basic skills training.

Across the UK, 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 6% of workers in Northern Ireland said that they were working towards additional construction qualifications at the time of the interview, compared with 17% in 2007 and one in ten (10.5%) in the UK as a whole. Interestingly 2.3% in the UK 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:

- Younger workers: 16 -19 years (56% NI) and 20-24 years (13% NI).
- Those who are directly employed by a company (10.4% NI).
- Workers who are 'new' to the sector: 1 year (26% UK) and 1-2 years (35% UK) (NI base too low)
- Certain trades in the UK: electricians (21.5%), window fitters (20.7%) and scaffolders (19.4%).

Figure 22: Whether Working Towards Additional Construction Qualifications

Base: All respondents

	NI 2012	NI 2007	UK 2012
Unweighted Base	406	263	4,933
Weighted Base	n/a	n/a	4,800
	%	%	%
ALL (406)	6	17	10.5
<1 year in construction (11)	-	68	26.4
1-2 years (12)	-	59	35.4
3-4 years (17)	35	39	21.0
5+ years (363)	1	4	7.5
16 - 19 (18)	56	n/a	55.7
20 - 24 (54)	13	n/a	19.5
25+ (330)	3	3	7.0

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 23 below.

Figure 23: Training Received to Improve Supervisory/Management Skills

Base: Those with supervisory or managerial duties

	NI 2012	NI 2007	UK 2012
Unweighted Base	58	48	801
Weighted Base	n/a	n/a	814
	%	%	%
No training received [†]	48	33	29.0
In-house training	10	27	23.6
Site Safety Supervisors Course	26	27	19.3
SMSTS (Site Manager Safety Training Scheme)	2	n/a	16.7
Chargehand and Team Leader Training	2	n/a	6.9
NVQ / SVQ Level 4 in Construction Site Management	5	n/a	4.6
CIOB Site Management Education and Training Scheme (SMETS)	0	n/a	3.2
CIOB Site Supervisor	3	n/a	3.0
Assessor and Verifier Training	2	n/a	3.0
Site Supervisor Safety Training Scheme (SSSTS)	0	n/a	3.0
Project Management short courses	2	n/a	2.1
Supervisory Management Training and Development (SMTD)	3	n/a	2.1
IOSH (Institute of Occupational Safety and Health) unspecified	0	n/a	2.0
Managing Safely in the Construction Industry (for CSR)	14	17	1.9
IOSH Managing Safety for Construction Managers	0	n/a	1.6
Civil Engineering Site Managers Scheme	3	n/a	1.4
Institute of Supervision and Management workshops	2	n/a	0.7
IOSH Safety for Senior Managers	0	n/a	*
Safety for Senior Executives (for CSR)	0	n/a	*
Other	3	n/a	3.4
Can't remember	2	n/a	4.4

[†] 2007 data includes 'can't remember'.

In Northern Ireland the proportion of construction supervisors/managers in partially manual roles who had received some sort of formal training for staff supervision had decreased dramatically since the previous survey (52% in 2012 compared to 67% in 2007). This is a not a positive finding for the workforce, and has a knock on impact not only for those asked to undertake supervision of teams (often as sub-contractor team leaders) but also for individual

site workers, who need senior colleagues or leaders with enhanced awareness of their responsibilities, legal requirements, importance of communication, health and safety knowledge etc.

The proportion of supervisors/managers in Northern Ireland who had received no training of this kind was 48% compared with 29% in the UK as a whole.

There is some variation in the types of training undertaken to improve supervisory/management skills. Fewer workers in supervisory roles are receiving training, including in-house training. UK-wide there is evidence of the sector increasingly investing in external training courses, including those with recognised certification, there is little or no evidence of this in Northern Ireland.

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 24 below.

All construction workers in Northern Ireland have a construction-related qualification and/or skill card/certificate (or were working towards a qualification at the point of interview). This is a significant improvement from 2007, where 10% did not have, and were not working towards, any sort of proof of skill or knowledge relating to the industry.

Two thirds of the workforce in Northern Ireland (67%) hold a skill card/certificate, but have no other construction qualification: up from 45% in 2007.

There has been a decrease in the proportion of workers who are working towards a construction qualification (from 10% to 6%). 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 24: Qualification Status Summary

Base: All respondents

	NI 2012	NI 2007	UK 2012
Unweighted Base	406	263	4,933
Weighted Base	n/a	n/a	4,800
	%	%	%
Hold a formal construction qualification or a skill card/certificate or working towards a qualification	100	90	97.8
Hold a formal construction qualification or a skill card/certificate	100	89	97.7
Hold a skill card/certificate	100	84	97.3
Hold a skill card/certificate but no other construction qualification	67	45	52.0
Working towards a qualification	6	10	10.5

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 CSR/CSCS (or affiliate) card held. The resultant variable has been used to produce Figure 25 (over the page), which illustrates the overall skill level of the workforce by region/nation.

On average, just 1% of workers had no evidenced skill/qualification level: comparable to 2007 also 1% but lower than 5% in the UK as a whole. Absence of evidenced skills/qualifications is slightly higher than average in Greater London (8%) and Scotland (7%), but lower in the East Midlands and the North East regions (2% and 2% respectively).

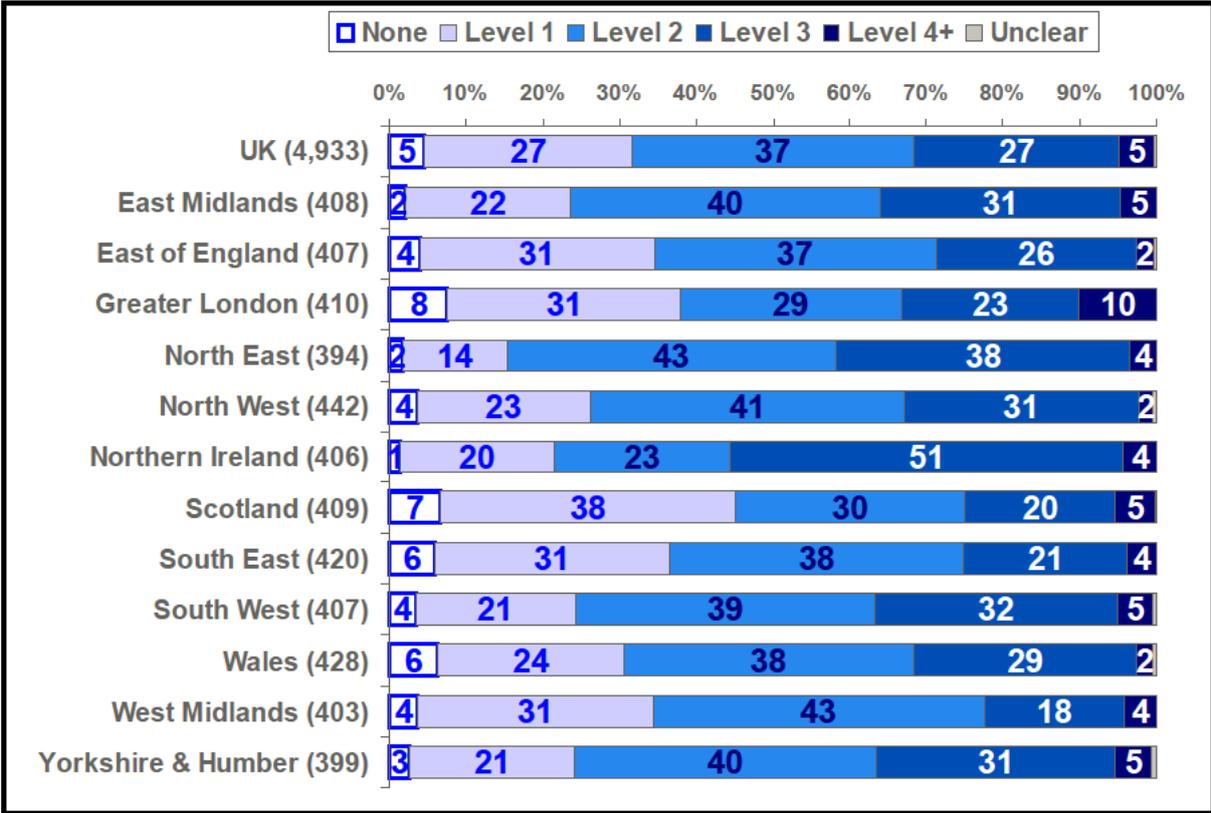
In Northern Ireland, 20% have evidence of skill/qualification at level 1; 23% at level 2; and 51% at level 3. Across the UK workforce, just over a quarter (27%) have a skill/qualification equivalent to level 1 only; more than a third (37%) at level 2; another quarter (27%) at level 3.

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

Analysis by other factors reveals that those who have worked in construction for 2 years or fewer are less likely to have reached level 2 or higher (22% compared with 82% 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 (79% compared with 49%).

Figure 25: 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/nation 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.

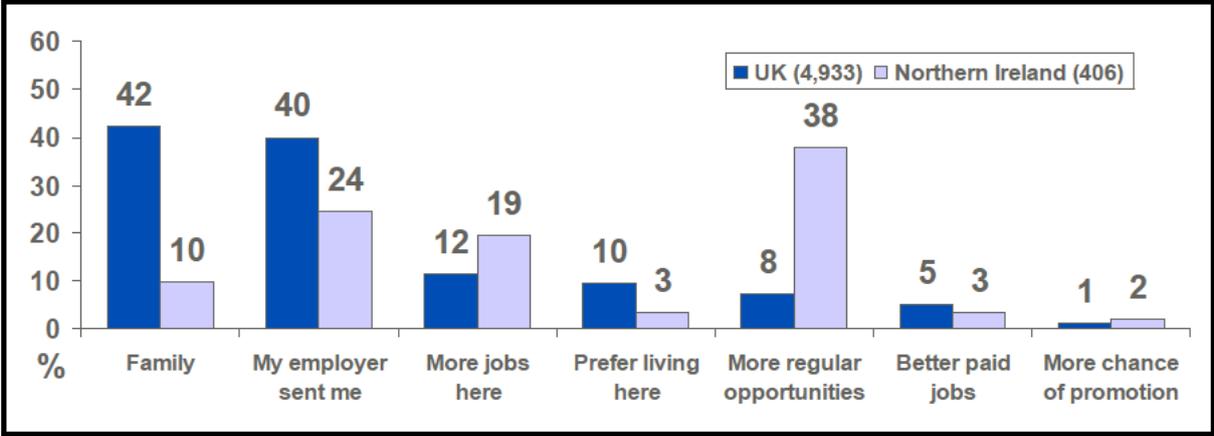
In Northern Ireland two fifths (38%) said that there were more opportunities in 'this area' (Northern Ireland). One in ten (10%) gave an answer relating to family reasons: either that they grew up in the area / had lived there all/most of their lives, or that they have moved to the area to follow family or a partner (compared with 42.3% nationally). 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'.

A quarter (24%) said that their employer had sent them there: these were predominantly direct employees.

Two in ten (19%) said there were more jobs available in that area than where they had lived/worked in the past. Just 3% stated that they preferred living in that area – suggesting that they had either relocated at that point, or had worked away from home for a while but returned out of choice. Few said that they were working in an area for better pay (3%) or for increased chance of promotion (2%).

Figure 26: Reason for Working in the Current Region/Nation

Base: All respondents



Of those construction workers interviewed in Northern Ireland, 73% spent their entire construction career working there: a higher proportion than in 2007 (64%). One in three (33.0%) of the UK construction workforce reported that they had worked in the same region/nation for their entire construction career. The increased proportion that had worked for some period outside their home region/nation is most 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 27: Proportion of Construction Career Worked in Current Region/Nation

Base: All respondents

	NI 2012	NI 2007	UK 2012
Unweighted Base	406	263	4,933
Weighted Base	n/a	n/a	4,800
	%	%	%
All of it	73	64	33.0
Most of it	19	28	35.9
Around half	4	4	12.1
A small proportion	2	3	13.5
Only on this job	0	1	3.2
Don't know	1	0	2.2

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). Less than 1% of workers in Northern Ireland were originally from outside the UK/ROI (compared with 2% in 2007): 95.7% were originally from Northern Ireland; 2.2% from Republic of Ireland; and 0.7%



from Scotland. Overall, 5.7% of UK construction workers in this survey were originally from outside the UK: fewer than 2% were from the ROI, and most of the remainder were from outside the EU, predominantly Eastern Europe. It appears that the number of migrant workers (from beyond the UK and ROI) in the UK 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.

In Figure 28 (below) the diagonally grey shaded cells identify those still working in same region/nation, and the blue column identifies the proportion of workers interviewed in Northern Ireland, by the region/nation in which that they began their construction career. The proportion of Northern Ireland's workers that had also begun their construction career in the same region/nation as they were interviewed was 96%, compared with 66% for the UK: higher than average.

Figure 28: 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
ROI	2.2	0.0	0.0	2.0	0.0	0.8	0.0	0.6	1.5	2.4	1.2	2.5
Outside UK/ROI	1.4	*	0.0	0.0	*	0.0	0.0	*	0.0	0.0	0.0	0.0
Unclear	*	*	*	*	2.2	*	0.7	*	0.7	1.3	0.6	0.5

On average, two thirds (65.8%) of workers in the UK were interviewed on construction sites in the same geographical area in which they were living when they started working in the construction sector.

Northern Ireland is one of the regions/nations with the most stable workforces (i.e. importing the lowest proportions of workers) and joins 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/nation are the more buoyant areas of southern England (London, East of England and the South East).

The key national 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 29. Great variation can be seen between regions/nations, from 97.8% down to 45.5%. Northern Ireland has an above average proportion stating that their first construction qualification was also gained within the nation (98%): compared with 94% in 2007.

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 29: 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 (231)	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%

5.3 Travel to Site

As mentioned above, 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: 99% for Northern Ireland.

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: and these mostly from the Republic of Ireland.

Figure 30: 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

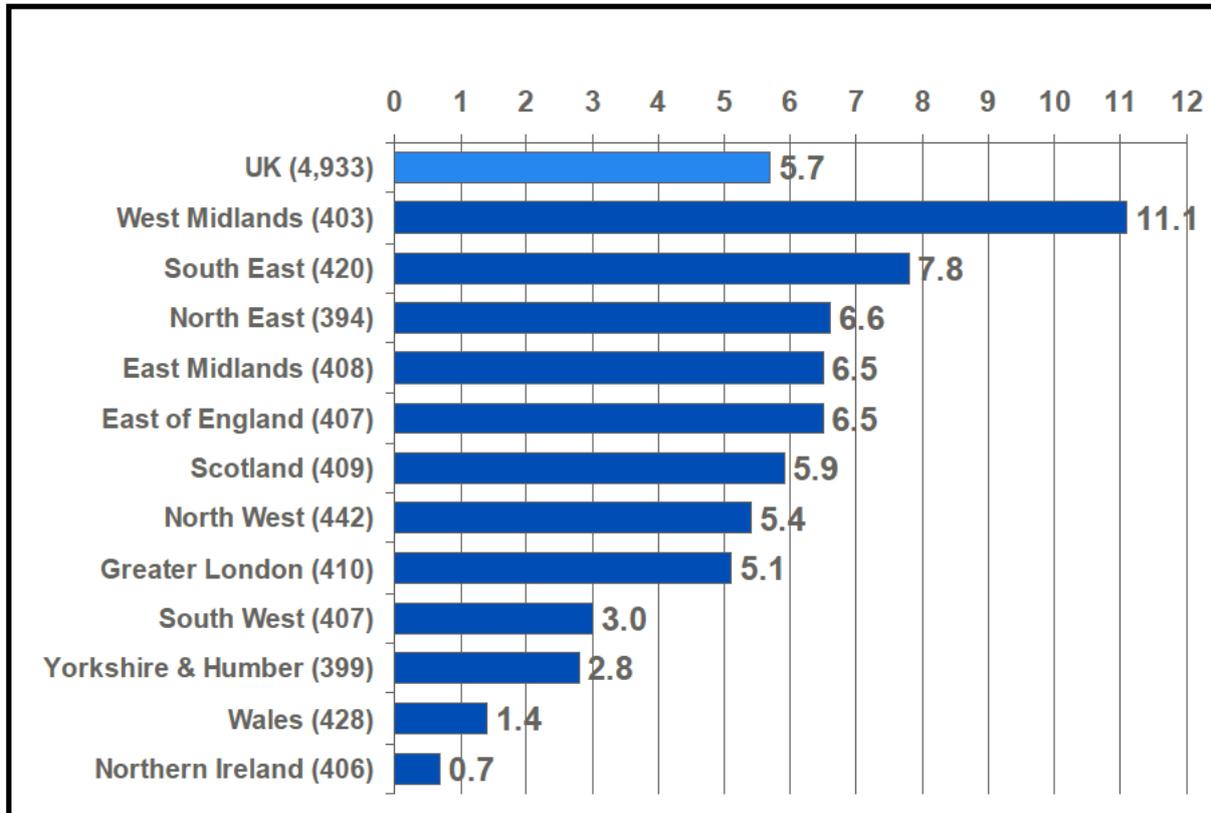
For sites in Northern Ireland, the Republic of Ireland was treated as the only neighbouring nation.

5.3.2 Temporary Accommodation Use

Nationally, one in twenty (5.7%) construction workers reported that they were staying in temporary accommodation. In Northern Ireland, the proportion was 0.7%, the lowest of all nations/regions.

Figure 31: Percentage of Workers in Temporary Accommodation

Base: All respondents



5.3.3 Journey to Work

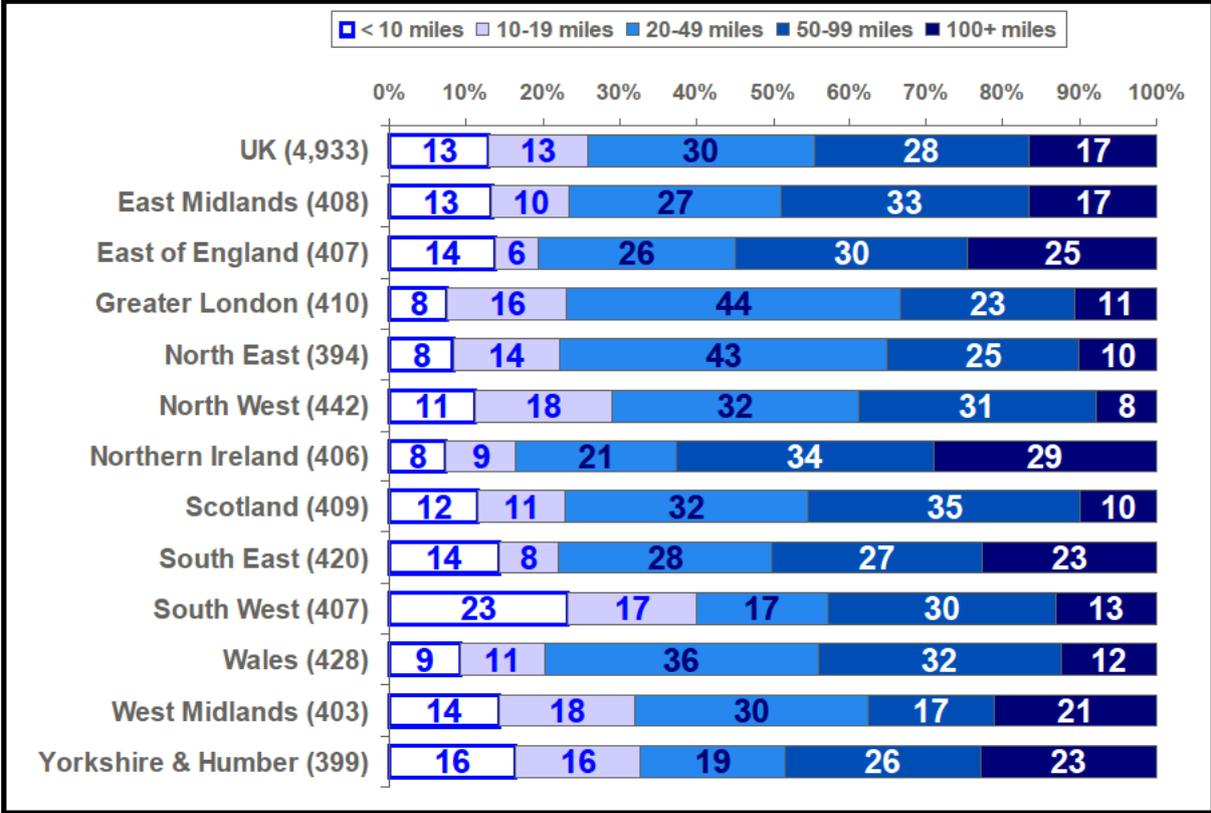
For those working in Northern Ireland, the average (mean) distance from workers' homes to their current site was 38 miles, compared to a median of 35 miles.

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

The limited use of temporary accommodation in Northern Ireland made very little difference overall in Northern Ireland, construction workers were travelling an average (mean) of 37 miles each way, or a median journey of 35 miles.

As Figure 32 shows, 17% of workers on sites in Northern Ireland live within 19 miles of the site on which they are currently working; 21% live between 20 and 49 miles away; another 34% live between 50 and 99 miles away (often travelling daily) and 29% live 100+ miles from the current site.

Figure 32: Distance From Home to Work by Region/Nation (current site)
 Base: All respondents giving home address / mileage information



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).

Seven per cent did not expect to work on site for more than a month, including 1% who expected to change site after no more than a week. Site durations of between one month and one year were predicted by 47% of those on site in Northern Ireland, and 26% expected to work continuously on the same construction site for a year or longer. However, it is important to note that 20% 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 a next month, more than a quarter of the workforce in Northern Ireland 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).

In the UK as a whole, almost a quarter (23.2%) did not expect to work on site for more than a month. 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.

Nationally, 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 general operatives/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, 79% of workers in Northern Ireland were fairly confident that it would be within a daily commuting distance. Just 6% said that their next site would most likely require them to use temporary accommodation: compared with 4.5% in the UK as a whole.

In the UK overall, 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 33: Type of Projects On Which Spent Significant Periods of Career

Base: All respondents

	NI 2012	NI 2007	UK 2012
	406	263	4,933
	n/a	n/a	4,800
	%	%	%
New housing	85	82	71.7
Public non-housing work such as schools, sports facilities, landscaping	82	27	59.0
Commercial work such as shops, offices, pubs etc	75	41	54.7
Private industrial work such as factories, warehousing etc	77	29	51.0
Housing repair and maintenance including extensions / loft conversions	76	37	46.6
Infrastructure projects - road/rail/airport, water treatment, power stations	66	5	37.8
One type of project only	0	46	23.7
Two types of project	12	21	16.7
Three types of project	8	14	14.5
Four types of project	7	6	13.2
Five types of project	6	11	15.0
All six types of project	9	1	15.3
Unclear / unsure	57	n/a	1.4

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

One in four (43%) of construction workers in Northern Ireland have experienced at least two types of construction project.

Figure 34: Number of Sub-Sectors Worked by Occupation (UK)

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
General op/labourer (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

Across the UK, 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 35 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 35: 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	389	254	207	182
Weighted Base	n/a	n/a	n/a	n/a
	%	%	%	%
Definitely will	61	61	71	51
Very likely	17	28	14	22
Quite likely	7	5	8	5
Quite unlikely	2	1	1	2
Very unlikely	4	2	1	7
Definitely will not	4	2	3	6
Hope to be retired	1	*	0	2
Don't know	3	1	1	4
Total	100	100	100	100

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

Figure 35 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 NORTHERN IRELAND WORKFORCE 2012 SUMMARY

Employment in Northern Ireland in SIC92 45 has declined from 80,426 in 2007 to 62,732 in 2011³: a decline of 22% in five years compared to 12% in the UK.

The 2012 manual construction workforce in Northern Ireland 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 39% of workers today have no more than 10 years' construction experience, compared with 46% five years ago.

The proportion of construction workers reporting that they hold at least one of the recognised skill cards/certificates has increased significantly from 84% in 2007 to 100% today. All workers interviewed in Northern Ireland had a card/certificate. A third 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 at a level 3. Uptake of training in supervisory/management skills has decreased for staff in supervisory roles, from 67% to 52%, including the provision of in-house training.

Nine out of ten of those surveyed in Northern Ireland had never worked outside of the construction industry. Only 7% of workers have moved around the construction industry, having undertaking at least two types of job role: generally with closely correlating skills, or by retraining for a higher skilled 'craft' role.

Two fifths (38%) said that there were more opportunities in 'this area' (Northern Ireland). A quarter said their employer had sent them there (24%). A high proportion of the workforce in Northern Ireland has worked there for their entire construction career (73%). Over nine in ten workers in Northern Ireland were also living there when they started working in the construction sector.

Northern Ireland is one of the regions/nations with the most stable workforces (i.e. importing the lowest proportions of workers) along with Wales, the North East, Scotland and Yorkshire & Humber. The average (mean) distance from workers' homes to their current site was 38 miles (median 35 miles): use of temporary accommodation nearer to the site made little difference to the length of the daily commute: an average (mean) of 37 miles each way (median 35 miles), much higher than the UK average.

In Northern Ireland, 7% did not expect to continue to work on their current site for more than another month, including 1% who expected to change site within the next week, in some cases, the next day. Nearly a half (47%) anticipated continuing on the same site during that phase for more than a month, but no more than a year, and 26% expected to remain on the same construction site for another year or longer.

³ Labour Force Survey, ONS, UK Construction Industry Workforce SIC92 45 time-series

NATIONAL APPENDICES
(provided in a separate document)

- Appendix 1 – Questionnaire
- Appendix 2 – Showcards
- Appendix 3 – Additional national data tables