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Career and Training Progression Routes in the Construction Industry Final Report





Study prepared by BMG Research from a commission by CITB.

The views expressed by research participants are their own and do not necessarily represent those of their employers

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Key messages

A programme of research to investigate career progression in the construction sector and, in particular, the relationship between progression and education, training, and qualifications in the industry was undertaken. The research involved surveys of individual workers and employers in the industry and more in-depth discussions with workers, employers, training providers (private training companies and institutions in Higher and Further Education) and industry Federations and Associations. Key messages of the research are set out below:

- Overall, the industry workforce is one which has modest educational achievement as a consequence of its types and levels of preemployment education. At age 16, 34% of workers did not obtain any qualifications. For the remainder, average achievement was 5 GCSE passes at grades A to C.
- Educational attainment for younger workers is higher (an average of 6 GCSE passes at grades A-C) but this may in part reflect the general tendency in recent years for educational attainment to rise, rather than that construction is increasing its share of young people with higher attainment.
- Only a third of industry workers continued their education beyond age 16 (13% into 6th Forms and 20% into FE) though a quarter entered an apprenticeship and (mainly) gained vocational skills and qualifications thereby. Nearly four out of ten industry workers entered employment directly at age 16.
- 10% of industry workers went to University as part of their initial education, mostly undertaking courses directly or indirectly related to construction activities.
- When initial educational attainment and post-16 routes are related to workers' current occupational status, an 'academic' route is evident such that those who went through 6th Forms or FE are now much more likely to hold professional positions in the industry (than those who went into apprenticeships or directly into employment). However, professional status is not wholly restricted to those who initially went down the educational route. Although the proportions achieving professional status from initial entry via Apprenticeship or employment at age 16 are much smaller, minorities of these people now hold the status.
- Management positions (often, given, the small firm character of the industry, those as owner/managers of micro or small businesses) are much more open to people with varied educational backgrounds. For example, 38% of people



- Generally, thus, the industry does not appear as one in which advancement is tightly restricted to those who make particular decisions at age 16.
- Some subsequent advancement, say that enabling those who start their careers in the industry through an apprenticeship or direct entry to employment to achieve higher status, was because of the in-service education and training which was undertaken by 17% of industry workers (most of which was to Level 3 or above) or from assessment processes (in which existing skills were accredited) which were undergone by 23% of workers in the industry.
- However, it should be recognised that, though these processes were undergone across the full occupational spectrum of the industry, they were most likely to be accessed by higher skilled workers – that is, to 'add qualifications to qualifications'. The proportion of lower skilled workers – at craft level and below – who gained qualifications during their working lives was somewhat lower.
- Overall, in combination, initial education and training, in-service training, and assessment processes have generated a workforce of which the current qualification profile is modest – nearly half (47%) still have no qualification above Level 1 and only a quarter (24%) have qualifications at graduate level (Level 4) or above.
- Although the sector is particularly subject to cyclical demand and though many workers, by the nature of the industry, move from project to project and from site to site, the research suggests that working lives in the industry (allowing that the research was unable to address workers who have left the industry entirely) are often stable:
 - Seven out of ten workers spend their whole working lives in the industry.
 - Where workers had worked outside the industry, this was mainly in their first years in work once in construction, the great majority of workers stayed there.
 - Stability often involved working in self-employed status 85% of staff had been self-employed at some point in their careers though only 13% had been **only** self-employed and most people **entered** the sector as an employee rather than through self-employment.



- Most of the 87% of workers who had been or were employed in the sector (rather than being self-employed) had had only a small number of employers 24% had had only one, and 81% had had no more than 5 employers.
- Unemployment was a limited experience only 24% of workers had been unemployed for a continuous period of 4 weeks or more and, of these, 68% had experienced no more than two such periods.
- Only 11% of current staff would consider leaving the sector in future.
- Employers and other stakeholders (education and training providers and industry organisations) variously identified a series of **barriers to career progression** – including the nature of industry trades, such that once qualified and/or experienced at craft level there was nowhere to go in an upward direction (other than to move into self-employment), particularly where workers were employed in small firms. They also noted that industry downturns constrain progression, that progression is more difficult in rural areas (because of the scarcity of firms into which to make upward moves), and, in some instances, that lack of training limited progression.
- Individuals themselves took a somewhat different view. Though they, too, thought that lack of demand was a key constraint, their own main focuses were on industry regulations and the cost they impose as barriers. Lack of careers guidance (reported by 16%), of formal training (15%), and of qualifications (9%) were less frequently reported and, overall, a third of individuals couldn't identify any barriers.
- The question of personal mobility as a barrier to progression was also investigated. 'Family ties' were identified as a barrier by 16% of individuals. The survey of individuals also revealed that 19% of workers had relocated to take up employment, 36% had worked away from home frequently or for considerable periods, and 14% had worked abroad. These factors were related to progression (working abroad most strongly) in the sense that those who had done each of these things were more likely to report strong progression in the industry – but the differences between those who were mobile (in one or other of the three ways) and those who were not were not great.
- Whatever the perception of barriers to progression, however, in fact, **progression in the industry**, despite external perceptions (as part of the rationale for this research) that the industry lacks well-defined career paths, **appears to be substantial**.



- Three measures were applied:
 - How many workers had, during their careers in the industry, moved up an occupational grade? The survey of individuals observed that 52% of staff had done so (the largest volume of movement being from craft to managerial status – presumably, in many cases, as experienced, skilled workers formed their own small businesses).
 - How many workers had moved upwards in the industry if achievement of better jobs **within the same occupational grade is added in (for example, a better managerial job, a better professional job, and so on)?** On this measure, **60%** had progressed.
 - How many workers had moved upwards in the industry simply on a perceptual basis (one which might include better pay, more respect for skills and experience, or more informal authority even whilst in the same job as well as upward movement in jobs or occupational grades)? On this measure, 84% of workers saw themselves as having progressed moderately or strongly.
- Generally, thus, while it may be the case as some respondents argued, that formal career hierarchies are available only within the fairly small proportion of large businesses in the industry, more 'organic' forms of progression are evidently available (and, indeed, only 13% of industry workers saw working in small firms as a barrier to progression).
- It was also observed that employee satisfaction, perhaps partially reflecting the patterns of progression above, was very high. Overall, nine out of ten workers were very or quite satisfied to be working in construction and only 5% were dissatisfied – whatever external concerns there may be about industry workforce structures and progression opportunity, these concerns do not appear to manifest strongly, in the form of widespread dissatisfaction, in the workforce itself.
- When the role of work experience, formal training, and qualifications in progression were examined, there was widespread agreement amongst all the groups which took part in the research that the industry is 'experience-driven' though formal training and qualifications may be advantageous and may add value or, for some employers may be essential, the most critical factor in external recruitment and internal advancement is that workers should be able to demonstrate competence through having undertaken the same or a preparatory role. Various other insights modify this proposition, however. For example, some external stakeholders saw qualifications as becoming more important than in the past, but this movement was somewhat hindered by

post-recessionary conditions in which limited recruitment has led employers to become more risk averse – falling back on those with proven experience. The research also suggests that some workers, at craft and semi-skilled levels particularly, may under-estimate the extent (albeit limited) to which employers value qualifications in recruiting staff. And the distinction between qualifications which were essential for regulatory reasons (or driven by customer demands), related typically to health and safety and other regulations, and 'trade' qualifications was also frequently made – in the first case, the qualifications were an essential, basic requirement; in the second, they were discretionary and could be balanced against prior work experience as a validation of competence – with the latter, as above, often being preferred.

- The survey also noted some discrepancy between individual reports of factors which motivate their careers and the views of employers and other stakeholders. Seventy-two per cent of individuals said they were motivated by the opportunity to progress in the industry. However, employers tended to see workers as somewhat less ambitious. An implication may be that employers under-estimate the extent of latent demand for advancement which could become actual demand if further opportunities were generated.
- There are external perceptions (partly motivating this research) that there are significant gaps in training provision for the industry. However, whilst this may be the case, this research with employers and the other stakeholder groups did not find strong evidence in support. Only sporadic instances of gaps in training provision were identified these were mostly individual 'mentions' rather than constituting a coherent picture of shortfalls. In this respect, employers noted a plethora of providers and courses, and Federations and Associations mainly reported that they identified and responded to needs in their particular sub-sectors.
- Asked to comment directly on what the industry needed to improve training and progression in the industry, providers, Federations and Associations focussed on:
 - Increasing industry awareness of available training and of external funding to support training.
 - Increased external funding to stimulate higher overall investment in training.
 - Continued and enhanced marketing of the industry to increase the educational quality of new entrants.



 Stronger partnership between industry organisations (including CITB) to promote the industry and to strengthen its presentation to government and the outside world in general.

1 Introduction

1.1 Purpose and context of the study

Career progression has clear value for most industries. It allows businesses to fill positions at higher skill levels with people who have practical experience at lower levels. When the occupational structure of many industries (including the construction sector¹) is shifting in favour of technical, professional and managerial occupations and the proportion of unskilled occupations is declining, career progression offers a means to supply skills which may otherwise be hard to find. Businesses which cannot offer career progression may lose talented staff. And industries with career opportunities are more likely to attract entrants, young people particularly, who are talented and motivated. For many individuals, of course, career progression or its prospect is what offers motivation, higher job satisfaction, and increased earnings whilst its absence may lead to de-motivation and exit from particular jobs or from an industry completely.

This is not to say, however, that workforce structures can be wholly 'progressive' or that all individuals will seek progression, in the sense of their rising through a succession of jobs with increasing levels of supervisory or technical or managerial responsibility. Many workers will find an occupational level, even a low one, to which they are temperamentally suited and at which they are efficient where this would not be the case if they were promoted. Particularly if wages are good, they may be wholly content to remain in the occupation rather than to seek a nominally 'better' job which may have its own costs, perhaps being more stressful or requiring mobility which they do not want. For employers, too, to have reliable, stable and experienced staff who can be counted on to deliver what the business needs is a considerable strength.

The ideal compromise is, perhaps, for an industry to have the degree of progression opportunity which maximises the efficiency of use of its skills and talents, allowing those to be deployed at as high a level as is justified, and which satisfies those staff who have career ambitions.

The key facilitators of career progression are basically the openness of higher level jobs to people in lower level ones and the ability for people at lower levels to develop whatever skills they need to take advantage of that opportunity. Openness is itself facilitated by the presence of career paths which are widely recognised in the industry both by those in a position to offer advancement and those who want such advancement. The skills development which enables movement up the career path may simply require experience, in which knowledge of the higher level job is gained

¹ Working Futures 2010-2020, Evidence Report 41, UK Commission for Employment Skills, August 2012

at the lower level by understudying the higher role or simply observing its requirements, or, more formally, may be developed by training and validated by award of a qualification.

Progression routes in many industries are known anecdotally from case studies of people who have advanced to higher positions, people who want to enter an industry and rise to a particular position are frequently advised by careers advisors and industry websites as to possible routes for doing so, and these routes are often mapped out in the form of logical diagrams (each of these being the case in respect of the construction sector).

However, whilst, as above, the description of the role and facilitators of progression appears straightforward and some progression routes are known from examples and general intelligence, the full pattern of progression – what proportions of industry workforces follow different observed routes, what other routes may exist, and what the role of training and qualifications is in facilitating progression – is much less obvious.

There is, for example, a range² of literature which variously examines the 'returns' to possession of *qualifications* – essentially what improvement in wages or likelihood of employment occur, on average, from acquisition of particular types or levels of qualification. Generally, these show positive returns from achieving qualifications other than very low level ones, with the scale of return increasing the higher the qualification. They also tend to show more positive returns for younger people who gain the qualifications and variations in returns between men and women according to type and level of qualifications gained. However, while it may be inferred that the positive returns, in wages for example, were often associated with career progression, that linkage is not made in the literature and there is no explicit examination of how the wage returns were actually generated or of linkage with employment and career progression in particular industries.

When a study³ examined the link between participation in *training* – rather than, necessarily, the achievement of qualifications – and progression (as measured by increase in wages), then only weak linkages were observed though there were associations between receipt of training and job retention and satisfaction. The study also observed that the causal relationship may not be one way, that participation in training stimulates progression, but may also operate in the reverse direction, with training occurring as a result of progression – training simply being

² For example: *The impact of University degrees on the lifestyle of earnings*, Department for Business Innovation and Skills, August 2013; *Returns to Intermediate and Low Level Vocational Qualifications*, Department for Business Innovation and Skills, September 2011; *Evaluation of learning below Level 2*, Department for Business Innovation and Skills, to be published.

³ *Training and progression in the labour market*, Department for Work and Pensions, 2010



more likely at higher levels of the occupational scale. And again, this analysis did not examine these effects with reference to particular sectors.

In line with this lack of data on the scale of progression in particular industries, and the role of training and qualifications in stimulating or allowing progression, it is no surprise that forecasts of occupational demand can observe that this demand will stem from a mix of absolute change (in the numbers required in a particular occupation) and replacement demand (the numbers required to replace people leaving the occupation) but cannot estimate the extent to which replacement is expected to result from progression internal to the industry. For example, it is predicted⁴ that the number of people in skilled construction jobs will expand by 7% between 2010 and 2020 but, additionally, 38% more people (compared with the 2010 base number) will be needed to replace people leaving the industry. However, the number of people leaving an occupation because they progress to a higher level in the industry or enter an occupation as a progression from a lower level is not known.

In summary, therefore, in most industries there are models of progression. However, the extent to which models capture the full variety of progression routes, estimate the volume of people who follow each route, and understand the factors which promote and hinder progression, are seldom observed.

Against these observations, the research reported here aims to greatly advance understanding of progression in the *construction industry*:

- How do people actually progress in the sector (and what do they mean by progression)?
- What are the factors particularly training and qualifications which lead to progression and what are the factors which inhibit it?
- How does progression relate to different occupations in the industry?
- And how does movement in and out of the sector relate to progression patterns?

The method by which these and other more detailed research questions is described in the following section.

1.2 Method

In order to meet the research aims and objectives it was agreed that a mixed-method approach would be the most appropriate methodology. This included:

⁴ Working Futures, UKCES as cited earlier



- Qualitative interviews with key stakeholders including Further Education Institutions, Higher Education Institutions, private training providers, and industry Federations and Associations.
- Quantitative surveys of sector employers and of individuals currently working in the construction industry.
- Qualitative interviews with sector employers and individuals currently working in the construction industry.

Quantitative surveys: sampling

Employers

Using IDBR⁵ data as a guide, a sample of 201 employers in the construction sector by 2-digit SIC code was achieved. Size of business was also a key consideration. A minimum of 25 interviews were achieved with businesses from four employer size bands (2-9, 10-49, 50-99, and 100+ employees) with the proportion of interviews in each size band based on the distribution in the IDBR but with deliberate over-representation of larger businesses. The following table shows a breakdown of the achieved sample by 2-digit SIC and employer size:

SIC code	Number of employees							
	2-9	10-49	50-99	100+	Total			
Development of buildings	12	6	3	5	26			
Construction of residential and non- residential buildings	15	7	3	4	29			
Construction of roads and railways	1	-	2	1	4			
Construction of utility projects	1	2	-	-	3			
Construction of other civil engineering projects	2	2	2	2	8			
Demolition and site preparation	3	3	1	1	8			
Building completion and finishing	34	10	2	4	50			
Other specialised construction activities n.e.c*	9	4	4	3	20			
Architectural and engineering activities and related technical consultancy	26	10	6	7	49			
Other professional, scientific and technical activities n.e.c.*	3	-	1	-	4			
Total	106	44	24	27	201			

Table 1: Sector and size of employers surveyed; NUMBERS

* Not elsewhere classified

Combined with this, a representative sample was also achieved by UK home nations, with 166 interviews in England, 18 in Scotland, 10 in Northern Ireland, and 7 in Wales.

⁵ Inter-Departmental Business Register, the UK government's 'official' record of enterprises



Because, as above, a quota sample was drawn by size of employer that did not reflect the actual distribution (larger businesses being over-sampled), the data was weighted within nation by size. Population estimates from IDBR were used as the basis for the weighting scheme as they represent the most reliable estimates available. The un-weighted and weighted sample profiles are presented in the tables that follow:

	2-9 employees	10-49 employees	50-99 employees	100+ employees	Total
England	88	37	18	23	166
Wales	3	1	2	1	7
Scotland	7	5	4	2	18
Northern Ireland	8	1	0	1	10
UK	106	44	24	27	201

Table 2: Un-weighted bases of the employer sample; NUMBERS

Table 3: Weighted bases of the employer sample; NUMBERS

	2-9 employees	10-49 employees	50-99 employees	100+ employees	Total
England	142	23	1	*	166
Wales	7	1	*	*	7
Scotland	13	3	*	*	18
Northern Ireland	5	1	*	*	10
UK	168	28	3	2	201

Individual workers in the construction sector

A sample of 501 respondents was designed such as to achieve a minimum of 30 interviews from five key 'role types' within the sector (Managerial, Professional, Technical, Supervisory, Craft or semi-skilled) in order to ensure sufficient numbers of each role type to allow reasonably meaningful sub-group analysis. Overall, the achieved numbers of respondents in each 'role type' were agreed with CITB as being reasonably representative of the structure of the sector workforce. Respondents 'self-identified' the groups to which they belonged and provided a job title so this could be checked and re-categorised as necessary based on the following definitions:



- Director
- Chief Executive
- Manager
- Professional roles e.g.
- Design (Architect, Structural Engineer, Geospatial modeller)
- Surveying (Quantity Surveyor, Building Surveyor, Hydrographic Surveyor)
- Management (Construction Manager, Project Manager, Facilities Manager, Site Supervisor)
- Planning (Planner, Town Planner)

• Technical roles e.g.

- Estimator
- Buyer
- Roofing Technician
- Architectural Technician
- Supervisory e.g.
- Roles with a supervisory function such as Site supervisor/Foreman
- Craft or semi-skilled roles e.g.
 - Wood occupations (Site Joiner, Shop Fitter, Wood Machinist)
 - Exterior occupations (Bricklayer, General Construction Operative)
- Interior occupations (Painter and Decorator, Ceiling Fixer)
- Specialist occupations (Thatcher, Scaffolder)
- Plant occupations (Plant mechanic, Plant Operator)

The following table shows a breakdown of the achieved sample by role type:

Table 4: Worker role types in the individuals' survey; NUMBERS

Role type	Achieved
Manager	171
Professional	126
Technical	45
Supervisory	32
Craft or semi-skilled	127
Total	501

The level of confidence (i.e. standard error) associated with a given sample is not determined by the size of the population being observed (particularly where the population is large), but by the actual size of the sample generated. In practice, once a sample size exceeds 100 cases (whatever the size of the total population) it is likely to deliver an acceptable degree of accuracy provided it is a random sample.

The samples generated in this research in the two surveys have the following maximum standard errors at the 95% level of confidence:



- Survey of 201 employers: maximum standard error of +/-7%⁶.
- Survey of 501 workers: maximum standard error of +/-4%⁷.

Questionnaire design and administration

All survey questionnaires used were designed by BMG and signed-off by the CITB. All interviews were undertaken between August and October 2013 and were administered by BMG's in-house call-centre using the Computer Assisted Telephone Interviews (CATI) technique. All survey interviews were designed to take no more than 15-20 minutes to complete. Potential respondents were called on a range of days and times on up to 10 occasions before being recorded as a non-respondent.

Presentation of survey data in the report

Individual question bases are provided on the graphs and charts in this report. Cross-tabulations were undertaken, based on key variables such as employer sector and size and individuals' roles. Independent t-tests⁸ were conducted at the 95% confidence level⁹ to identify where differences between groups were statistically significant.

Most data used in this report are rounded to the nearest whole percentage. For this reason, on occasion, tables or charts may not add up to 100 per cent.

Qualitative research

To support the quantitative surveys and to add further insights, a number of 'qualitative' interviews were also undertaken with representatives of various groups engaged with skills and progression issues in the industry. These comprised:

- Industry employers (12 interviews)
- Workers in the industry (12 interviews)
- Further Education Institutions (5 interviews)
- Higher Education Institutions (5 interviews)
- Private training providers (4 interviews)
- Industry Federations and Associations (5 interviews)

 $^{^{6}}$ This means that in 95% of cases the true value for any binomial response will fall into a maximum of between +/-7% of that given. So, for example, if 50% of respondents agree, it can be stated that 95% of the time the true value will lie between 43% and 57%.

⁷ This means that in 95% of cases the true value for any binomial response will fall into a maximum of between +/-6% of that given. So, for example, if 50% of respondents agree, it can be stated that 95% of the time the true value will lie between 44% and 56%.

⁸ A T-test is a statistical test performed to determine if groups of data are significantly different from each other

⁹ Confidence levels are used to indicate the reliability of an estimate



In each case, interviews lasting around half to three-quarters of an hour were conducted on the telephone using a discussion guide to guide the interview. The discussion guides, agreed in advance with CITB, directed interviews to a range of progression-related topics and themes appropriate to each group but allowed considerable latitude to respondents in describing their experiences and views. Interviews were audio-recorded with respondent permission to allow accurate recall. Research material obtained from these interviews is used at various points in the report to illuminate statistical findings from the quantitative surveys.

1.3 The report

The remainder of the report now sets out findings from the programme of research activity. A series of chapters report findings, respectively, from: individual workers; employers; and providers, Federations, and Associations. A final chapter sets out an overview of findings. An annex comprises individual case histories of 10 workers in the industry (based on qualitative interviews). These offer specific illustrative insights into experiences of, and views on, progression in the construction industry and related factors.

2 The individual perspective

2.1 The survey of individuals: sample profile

As noted in the method section in Chapter 1, part of the research involved a telephone survey of 501 individuals working in the construction sector. The profile of these individuals is described in various ways below.

Firstly, as would be anticipated from a survey of an industry with a high proportion of male employees, the majority of respondents, 93%, were men. The 7% of women in the sample (37 cases) mainly worked in managerial roles (10 cases) or professional roles (19 cases). Only small numbers of women had technical jobs (2 cases), supervisory jobs (4 cases) or craft/semi-skilled jobs (2 cases).

Overall, the occupations of respondents were weighted to managerial, professional, and craft/semi-skilled levels (Figure 1):



Figure 1: Occupational group of survey respondents (all respondents)

These respondents worked in a range of construction sub-sectors, with half being employed in a range of specialised construction activities (Figure 2):





The majority of respondents, 76%, worked in small organisations employing 5 or fewer people, 15% worked in organisations employing between 6 and 25 people, 4% worked in organisations with between 26 and 100 people, and 4% in organisations employing more than a hundred people. The likelihood of working in a larger organisation was significantly higher for those in professional, technical, and supervisory roles. Thus, 16% of professional staff, 16% of technical staff, and 29% of supervisory staff worked in businesses employing more than 25 people compared with just 2% of managers and 3% of craft or semi-skilled staff.



The age distribution of respondents is shown in the next figure. It can be seen that the distribution is weighted to respondents aged 35 or over and, particularly, to those aged 45 and over. Fifteen per cent of respondents were actually over the traditional age of male retirement (Figure 3):





There was a moderate relationship in the data such that technical and supervisory staff tended to be somewhat younger on average (17% of the former and 23% of the latter were aged 18-34 compared with the average of 10%) but in all occupational groups, people aged 35 or above predominated.

The sample was drawn across all regions of England (which contributed 84% of all respondents) and from Scotland (10% of the sample), Wales (4% of the sample), and Northern Ireland (2% of the sample).

2.2 Initial education and early destinations

At age 16, the GCSE (or 'O' level for older respondents) examination stage, 66% of respondents reported that they had obtained qualifications.

Obtaining qualifications at this stage or not was predictive to a degree of what eventual status in the industry respondents would achieve, with people who are now in professional and technical occupations in the industry more likely than people in other occupations to have obtained qualifications at age 16 (Figure 4):



Figure 4: Proportions of industry workers obtaining qualifications at age 16 (all respondents)



Having obtained qualifications or not at this stage was also related to changes in the education system and consequent likelihood of taking examinations at 15 or 16. Older workers, particularly those in secondary school in the 1960s (now aged 60 or over), were less likely to have obtained qualifications at age 16 (Figure 5):



Figure 5: Proportions of industry workers of different ages now who received qualifications at age 16 (all respondents)



The great majority of qualifications (87%), as would be expected, were GCSE passes. Five per cent of respondents (mainly those over age 45) reported having obtained vocational qualifications¹⁰ and a further 5% of respondents (mainly those aged 65 or over) reported having obtained 'other' qualifications.

The number of 'good' GCSE passes, those at grades A to C, was again predictive of eventual status in the industry, with those now in craft and semi-skilled occupations having achieved fewer, on average, than those at higher occupational levels in the industry (Figure 6):

¹⁰ Mainly City & Guilds qualifications in bricklaying or carpentry/joinery



Figure 6: Average number of GCSE passes at grades A-C per industry worker (per cent of those who obtained GCSE passes at age 16)



Calculation of the average number of good GCSE passes for industry workers in different age groups suggests that the industry is becoming increasingly staffed by people with formal qualifications, with the average for young age groups exceeding that for older ones (Figure 7):

Figure 7: Average number of GCSE passes at grades A-C for industry workers of different ages (per cent of those who obtained GCSE passes at age 16)



At this stage (achievement or not of qualifications at age 16), the most frequent destination, for around 4 out of 10 respondents (38%) was to enter employment, with others going to FE College (20%), entering an apprenticeship (20%), or staying on into 6^{th} Form (13%).

The likelihood of these choices was associated with achievement at age 16. The average number of good, Grade A-C, GCSEs achieved by those who entered each route were: 6th Form, 6.0; FE College, 5.0; employment, 4.20; apprenticeship 3.2.

Relationships are evident such that those who are now in professional or technical occupations are more likely to have taken the *academic* option, those now in lower levels of the occupational structure are more likely to have entered *employment* directly from school, while entering *Apprenticeship* was more likely to lead to managerial, supervisory, or craft/semi-skilled status than to professional or technical status (Table 5):

		6 th Form	FE College	Employment	Apprenticeship	Other	Total
Manager (156)	%	10	20	34	29	7	100
Professional (105)	%	30	28	30	10	2	100
Technical (37)	%	22	16	41	11	10	100
Supervisory (31)	%	6	13	55	23	3	100
Craft or semi- skilled (172)	%	5	17	44	31	3	100
All (501)	%	13	20	38	24	5	100

Table 5: Current occu	national group	by destination	at age 16 [.]	PERCENTAGES
Table J. Ourrent occu	pational group	by desination	al age 10,	LINGENTAGEO

Sample bases in brackets (the above are row percentages)

It can also be seen (from Table 6 following), that the proportion of industry workers who entered FE College at age 16 has risen consistently – younger workers are more likely than older ones to have taken this route. The proportion of those entering 6th Forms rose markedly for those workers now aged 34 or below – that is in the last 15 years or so. Direct entry into employment has declined correspondingly. The proportion of workers who undertook an apprenticeship has also declined. In this case, the shift may reflect movement from the traditional craft apprenticeship system – by which substantial proportions of those aged 55 or over were trained – to the more recent (post-late 1970s) government-supported Apprenticeship programme (Table 6):

		6 th Form	FE College	Employ- ment	Apprenticeship	Other	Total
18-24 years (8)	%	25	38	25	13	0	100
25-34 years (41)	%	27	29	29	15	0	100
35-44 years (73)	%	12	27	27	27	7	100
45-54 years (153)	%	12	22	44	18	4	100
55-64 years (142)	%	13	14	40	27	6	100
65 years or older (73)	%	7	11	37	38	7	100
All (501)	%	13	20	38	24	5	100

Table 6: Current age of respondents by destination at age 16; PERCENTAGES

Bases in brackets (the above are row percentages)

Note: Figures for 18-24 years are unreliable because of very small base

The 6th Form route

Most of the people who pursued their education in the 6^{th} Form (13% of the sample; 60 cases) obtained further qualifications from this period of education – 92% did so. In most cases (83% of those achieving qualifications) these qualifications were 'A' level passes (2 or more passes in almost all cases). Eight per cent of achievers (only 5 cases) achieved vocational qualifications (which were related to the construction industry in each case).

Having entered 6th Form education (and, in most cases, having achieved qualifications) was particularly likely to lead to eventual occupational status in the industry in professional occupations and, to a lesser extent, in technical occupations (Figure 8).



Figure 8: Percentages of those who entered 6th Forms currently in different occupational groups compared with the percentages of the whole sample who are in those groups



Following 6th *Form*, around half of people who took that route then went to University, a third entered employment, and a minority went into further education in an FE College. Only 2 individuals out of the 65 cases in the survey reported having progressed into an apprenticeship (and these cases were both people aged 45 or over).

The FE route

Eighty-eight per cent of people who went from school into a **Further Education College** obtained qualifications from that experience, 12% not doing so. Of those achieving, 78% achieved vocational qualifications, 12% achieved 'A' levels, and 11% achieved other qualifications including GCSEs.

Seven out of ten (69%) of those respondents who achieved vocational qualifications reported that those vocational qualifications were directly related to construction. These qualifications comprised a range of City and Guilds awards at varied levels in a range of construction crafts (bricklaying and wood trades most frequently), NVQs at Levels 1 to 3 in a similar range of crafts, and BTEC ONC/HNCs in building studies, construction, civil engineering or architecture.

Entry to Further Education was less strongly predictive of eventual industry occupational status than 6th Form participation but was also somewhat more likely than average to eventually lead to professional status (Figure 9):



Figure 9: Percentages of those who entered FE Colleges at age 16 currently in different occupational groups compared with percentages of the whole sample who are in those groups



Following FE College, employment (for 59%) was the most frequent destination, followed by going to University (for 16%), entering an Apprenticeship (12%), or becoming self-employed (5%). Eight per cent of respondents had other destinations.

The apprenticeship route

Twenty-four per cent of respondents entered **apprenticeship** following their school education to age 16. Of these, 30% reported that it was a 'government' Apprenticeship, 67% that it was a 'company' apprenticeship, and 3% were unsure. Eighty-four per cent of company Apprenticeships had, however, been held by respondents aged 45 or over, most in years before government funding of apprenticeships was initiated.

Most apprenticeships were of significant duration, a substantial majority lasting three or more years (Figure 10):



Figure 10: Duration of apprenticeships (for those who entered an apprenticeship after leaving school at age 16)



The length of apprenticeships was also related to when they took place. For example, whilst those aged 45 and over accounted for 76% of all those who undertook an apprenticeship of any length, they accounted for 90% of those who undertook apprenticeships of 4 years or longer.

Most apprenticeships (92%) were completed successfully and most (87%) were in the construction sector (though a minority of 13% were in other sectors or were in generic areas such as management or administration). Those who undertook construction sector apprenticeships in some cases reported that their apprenticeship covered more than one trade area (thus, 117 respondents identified 179 trade areas for which their apprenticeships prepared them). Four trade areas accounted for nearly 6 out of 10 (57%) of all trade areas [carpentry and joinery (21%); bricklaying (14%); painting and decorating (15%); and plastering (7%%)] with the remainder being spread in proportions of less than 5% in each case in other trade areas including roofing, flooring, glazing, scaffolding, steel erecting, and so on.

Eighty-seven per cent of previous apprentices reported obtaining a qualification from their apprenticeship. Given the historic nature of many of these, the qualification which was most often mentioned (by 80% of those achieving a qualification) was a City and Guilds or comparable qualification gained in off-site learning. Fewer (14%) reported obtaining an NVQ or SVQ (5% at Level 1, 7% at Level 2, and 2% at Level 4).



Having undertaken an Apprenticeship was likely in later life to lead to managerial and craft or semi-skilled occupations rather than to professional or technical occupations (Figure 11):

Figure 11: Percentages of those who entered apprenticeship at age 16 currently in different occupational groups compared with the percentages of the whole sample who are in these groups



Following their apprenticeships, almost all respondents entered employment (78%) or became self-employed (16%). Only 4% went into further education and only one out of 135 respondents reported (in each case) progression into a higher level of apprenticeship or to University.

University

Of all respondents who went on to **University**, 10% of the whole sample, following their initial further education or training at age 16 and immediately after (51 cases of whom 62% had stayed on in the 6th Form, 36% had entered FE at age 16, and 2% had undertaken an apprenticeship), most achieved a degree (82%) or another qualification (8%) whilst 10% didn't complete or get a qualification.

Degree subjects including architecture (studied by 35% of these respondents), civil engineering (8%) and surveying (14%). Other subjects were mostly related to construction occupations including design, mechanical engineering, hydrology, land economics, environmental technology, and planning.

Having undertaken a degree almost exclusively led ultimately to a higher level of occupational status in the industry (Figure 12):



Figure 12: Percentages of those who undertook a University course as part of their initial education currently in different occupational groups compared with the percentages of the whole sample who are in those groups (per cent of those who undertook a University course as part of their initial education)



Sample base = 51

Following University, the majority of respondents (76%) reported entry into employment, while 20% went on to take a higher level course. Only one individual went from University into an Apprenticeship. Of the 10 cases who went on to take a higher level course, 4 studied for a Master's degree, 1 for a PhD, and 5 for a Diploma or other qualification.

Summary of initial education

The initial education and its impacts on eventual occupational status can be summarised (see Figure 15 on next page). What is apparent, firstly, is that achievement of *managerial status* – in an industry comprised substantially of small and micro businesses – can be achieved by significant proportions of people who follow any of the routes.

Achievement of *professional status* is, however, and as would be expected, likely for those who follow the 6th Form/University route while *technical status* is most frequently an outcome of the FE route.

Working at *craft or semi-skilled level* most frequently occurs from direct entry to employment at age 16 or, particularly, from an apprenticeship. It can be seen that apprenticeship, whilst the strongest route towards management, is least likely to generate eventual employment at professional and technical levels (Figure 13):



* Note: excludes small percentages of 'other' categories



2.3 In-service training and qualifications

Whilst initial education and training have an impact on occupational outcomes, as described above, a further factor which influences outcomes is the further training which takes place during working lives in the industry. A first analysis suggests that professional, technical, and supervisory staff are more likely to undertake formal training and training towards qualifications than are managers and, particularly, craft and semi-skilled workers. Essentially, groups which tended to have most initial education and training also tended to receive most formal training subsequently (Table 7):

	Manager	Professional	Technical	Supervisory	Craft or semi- skilled	All
	%	%	%	%	%	%
On-the-job training only	22	18	16	10	24	21
Formal off-the-job training not towards qualifications	23	45	49	45	24	31
Training or study towards qualifications	21	23	19	23	8	17
None of these	35	14	16	23	44	32
Total	100	100	100	100	100	100

Table 7: In-service training by job role; PERCENTAGES

Base: all 501 respondents in the survey (the above are column percentages)

Note: The data is calculated as a hierarchy such that it records the most formal degree of training undertaken. Thus, training towards qualifications supersedes off-the-job training and on-the-job training supersedes off-the-job training. Each respondent is counted only once in the calculation, even if he or she had undertaken training of two or all three of the types.

The 17% of respondents who had had periods of training or study towards a qualification (84 cases in the sample) reported in 7 out of 10 cases that they had had 3 or fewer episodes of such training, the remainder having had more episodes. On average, these respondents reported 3.7 episodes of training or study.

Characteristics of this in-service training or education were:

• It was instigated more frequently by the individual (51% of cases) than by employers (43% of cases) or mutually by both parties (5% of cases).



- But it was paid for more frequently by employers (51% of cases) than by individuals (40% of cases) or by external agencies such as a local authority or the government (9% of cases).
- In cases where the training or education was not employer-sponsored (and was, in those cases, undertaken in employment by definition), it was mostly undertaken while employment or self-employment was maintained (75% of cases) but in 7% of cases the individual had left a job to pursue the training and in 14% of cases it was undertaken during a period of unemployment.
- Delivery of the training was spread across FE colleges (38% of cases), private training companies (29% of cases), Higher Education Institutions (22% of cases) or other deliverers (7% of cases).
- Three-quarters of the training (74%) was related directly to the construction sector, 10% was generic (not sector-related), and 15% was related to other industry sectors.

Much of the training and education had a substantial duration. Episodes typically lasted an average of 2.1 years but a significant proportion of episodes lasted above this average (Figure 14):



Figure 14: Duration of episodes of in-service education and training (per cent of those who undertook in-service education and training)

In line with these significant durations, most of the training and education was directed to qualifications at Level 3 and above. For around 4 out of 5 of the people who had studied or trained during their careers, the training or study was at these higher levels (Figure 15):



Figure 15: Highest level of in-service education or training (per cent of those who trained or studied towards qualifications during their working lives)



The number of cases of people who undertook this in-service training who were in different occupational groups were too low for statistically reliable differences to be observed. However, a broad relationship in the data could be seen such that, as would be expected, higher occupational levels were more likely to pursue higher levels of qualifications and vice versa (Table 8):

Table 8: People in different occupational groups who pursued different levels of qualification; NUMBERS

	Manager	Professional	Technical	Supervisory	Craft or semi- skilled	All
Professional Institute membership	8	8	1		1	18
Higher degree	2	3				5
Degree	1	4				6
NVQ/SVQ Level 4	2	3	3	1	1	10
NVQ/SVQ Level 3	12	5	3	2	7	29
NVQ/SVQ Level 2	5	1		3	5	14
NVQ/SVQ Level 1	1					1
Not known	1					1
Total	32	24	7	7	14	84

Base: 84 respondents who had trained or studied towards qualifications during their working lives

In addition to qualifications gained from formal training and education courses, qualifications in the industry can be gained from assessment processes which recognise existing experience and skills. Overall, 23% of all respondents in the survey reported having acquired qualifications by this route (Figure 16):


Figure 16: Percentages of industry workers who had gained qualifications as a result of assessment (all respondents)



Two key observations on this data (Figure 16) are:

- Firstly, the occupations which are most likely to acquire qualifications by the education and training route professional and technical staff are also somewhat more likely to acquire qualifications by the assessment route.
- Secondly, younger workers in the industry, those up to 54, are more likely than those older than this to acquire qualifications from assessment processes – presumably because at these later ages, many workers regard themselves as both sufficiently skilled and qualified at what they do and/or do not expect or seek to progress further. A further factor may be that assessment processes leading to qualifications were less readily available in these older workers' earlier working lives.



For the 23% of respondents who had gained qualifications by the assessment route, the qualifications gained as proportions of the total were:

- NVQs/SVQs were gained by 23% (of these: 8% at Level 1; 44% at Level 2; 20% at Level 3; 8% at Level 4/5; 20% not known).
- Professional Memberships of Institutes were gained by 19% of those gaining qualifications by assessment.
- Fifty-eight per cent of these respondents had gained a wide variety of other qualifications and certificates in small numbers and proportions in each case (for example: a City and Guilds award, 3%; CSCS cards, 4%; Health and Safety Certificates, 4%; First Aid Certificates, 2%).

2.4 Summary of qualification levels

Combination of qualifications from initial education with those gained later in their careers shows, as would be expected, that craft and semi-skilled supervisory staff are least likely to have higher level (Level 4+) qualifications and that professional technical staff are most likely to do so. A significant proportion of managers are also likely to have no or low qualifications (Table 9):

		No qualifications	Level 1	Level 2	Level 3	Level 4	Level 5	Prof. Inst. Member	Total
Manager	%	22	26	16	11	13	3	9	100
Professional	%	11	6	23	14	23	7	16	100
Technical	%	24	11	8	8	22	11	16	100
Supervisory	%	32	13	29	13	10	0	3	100
Craft or semi-skilled	%	36	30	13	15	6	0	0	100
All	%	26	21	17	13	13	3	8	100

Table 9: Highest level of qualification by occupational level; PERCENTAGES

Base: all 501 respondents in the survey (the above are row percentages)

2.5 Working lives in the industry

Working in and out of the construction sector

The nature of a working life is, of course, affected by its length. The average for all survey respondents was 32 years since first employment with no great variation between occupational groups in this average (Figure 17):



Figure 17: Average length of working life by occupational group in years (all respondents)



Most respondents, 71%, had spent their entire working life in the industry, with this proportion again not varying hugely between occupational groups (Figure 18):







For the minority of respondents (29% of the sample, 145 out of 501 cases) who had worked in other sectors, average periods of employment in other sectors were of 9-10 years on average. Professional-level staff were slightly more likely to have worked for longer outside construction and craft/semi-skilled staff least likely to have spent longer periods of time out of the sector (Figure 19):

Figure 19: Average length of employment out of the construction sector of those who had worked in other sectors in years (based on those who had worked outside the construction sector)



Periods of working lives spent outside the sector were almost universally at the *start* of workers' working lives; that is, they had entered another sector prior to their entering the construction sector and then, having entered the industry, had subsequently remained in construction. The sectors in which workers had worked prior to entering construction were spread across the whole economy but the most frequent were manufacturing (28% of those who entered construction from another sector), retail, wholesale and motor vehicle repair (11%), public administration, defence, and social welfare (9%), agriculture (8%), professional and technical services (5%), and transport (4%).

Because working outside the sector was an experience only of a minority, the distribution of years of work in *construction* is, on average, not greatly dissimilar from the distribution of total years in *employment* (Figure 20):



Figure 20: Average length of working life in the construction industry by occupational group in years (all respondents)



Because managers and craft and semi-skilled occupational groups tend (as shown earlier) to have somewhat higher proportions of people with no or low qualifications and as these groups have the longest average working lives in construction, there is an association between length of time in construction and people's highest level of qualifications such that a shorter period in construction is associated with possession of higher qualifications (although membership of professional institutes runs counter to the trend) (Figure 21):



Figure 21: Average length of working life in the construction industry by highest level of qualification in years (all respondents)



Self-employment

A very high proportion of respondents had also spent time in self-employment (Figure 22):



Figure 22: Whether respondents had spent periods of time in self-employment (all respondents)



Sample base = 501

However, although 85% of workers had spent some time in self-employment in their careers in construction, a much smaller proportion, 20%, *entered* construction with self-employed status. The remaining 80% of workers initially entered the sector as employees. Entry to the sector with self-employed status was highest for craft and semi-skilled workers (29%) and lowest for professional-level staff (10%).

Not having been self-employed at all was most common for professional, technical and supervisory staff (and, therefore, also associates with possession of higher level qualifications – such that those with higher level qualifications were less likely to have been self-employed) and quite unlikely for craft and semi-skilled staff (Figure 23):



Figure 23: Percentages of workers who had never been self-employed (all respondents)



The average length of time in self-employment for the 85% of workers who had been in self-employment (whether or not they had also been employed) was 21.4 years. This time was longer for managers and craft and semi-skilled staff (though it will be recalled from above that these groups had, on average, longer working lives in the sector than other groups) (Figure 24):



Figure 24: Average length of working life in construction and average length of time in self-employment (for those who had been self-employed) in years



As with length of time working in the construction sector overall, having been selfemployed relates to qualification levels such that those who had lower qualification levels were those who had spent longest, on average, in self-employment (Figure 25):



Figure 25: Average amount of time spent in self-employment by highest level of qualification in years (for those who had been self-employed)



Number of employers

Of those respondents who had been in employment (87% of the sample), a quarter (24%) had had only one employer, and a further 6 out of 10 (57%) had had between 2 and 5 employers. Fewer than 1 in 5 respondents (19%) had had 6 or more employers. Only 5% of respondents who had been in employment had had more than 10 employers in their working life. Of course, older workers were a little more likely, because of the lengths of their careers, to have had higher numbers of employers but even amongst workers aged 55 and over who had been in employment, 80% had had 5 or fewer employers and 21% had had only one.

There was relatively little variation between occupational groups on this indicator: the proportions of people who had been in employment in the sector (as opposed to having been continuously self-employed) who had had five or fewer employers were 83% for managers, 77% for professionals, 82% for technical staff, 74% for supervisory staff, and 82% for craft and semi-skilled workers.

Nor was having achieved a particular level of qualifications associated with the number of employers. For example, 82% of those without any qualifications (and had been employed) had had 5 or fewer employers, while 84% of those with graduate level qualifications (and had been employed) had had 5 or fewer

employers. There was, thus, no suggestion in the data either that achieving qualifications increases job mobility, or, conversely, that it promotes a higher level of stability.

Progression in working lives

For a half-sample of survey respondents (250 cases), more detail of their careers in construction was obtained. This allows comparison, firstly, of respondents' initial occupations (on entry to the construction sector) with their current occupations (Table 10):

Initial occupations	Man.	Prof.	Tech.	Admin.	Craft	Sales	Semi- and unskilled	Total
Managerial	7	1			1	2		11
Professional	10	20	2					32
Technical	8	13	5					24
Administrative	2		3	2				7
Craft	47	6	2		74		2	131
Sales		2						2
Semi- and unskilled	7	3			18		1	29
Total	81	45	12	2	93	2	3	238

Table 10:	Initial and curre	nt construction	occupations com	pared; NUMBERS

* Excludes 12 cases with insufficient information

It can be seen from this data (Table 10) that considerable progression has occurred. The highlighted diagonal contains 109 cases, 46% of the total. These cases represent people who *may* have progressed practically (in terms of seniority *within* a job category or in increased wages) and subjectively in their own eyes, but remain technically in the same job category. To the right of the diagonal only a handful of cases, 6 out of 238 cases (less than 3%) have apparently moved from a higher to a nominally lower job status. To the left of the diagonal, the remaining 123 cases, 52% of the total, have moved *upwards* in terms of their occupational group, the main movements being:

- From professional status into management (10 cases)
- From technical status into professional or management status (21 cases)



- From craft status into technical, professional and (particularly) management status (55 cases)
- And from semi-skilled or unskilled status into craft status (18 cases) or professional or managerial status (10 cases)

A further way of examining career progression, which takes into account the presence or absence of job movement, suggests that respondents can be divided into four broad groups. The groups are based on a combination of job change (moving from one job to another or from a job into self-employment or vice versa) and respondents' perceptions as to whether that movement was an *upward* one. It should be noted that because respondents could view job change *within* an occupational category (for example, from one craft level job to another or from one management job to another) as an improvement or not, the percentages in the groups do not correspond exactly with those in Table 10 earlier, which record stability or movement in relation only to movement *between* occupational groups (Figure 26):

Figure 26: Four progression groups in the construction sector workforce



These different 'types' of career in the sector can be related to various other characteristics of the individuals in each type. The following table shows how these other characteristics relate to the four types (Table 11):

Table 11: Career types and their relationship to other workforce characteristics

TYPE A: PROGRESSION THROUGH ONE MOVEMENT (17% of the sample)	This type shows no consistent or thematic relationship with membership of other workforce groups but is a more likely for those with graduation level qualifications and above (27%)
TYPE B: PROGRESSION INVOLVING TWO OR MORE MOVES (43% of the sample)	Managers (54%) and professional staff (55%) are more likely to have had a 'Type B' career whilst craft or semi- skilled workers (27%) are less likely to have done so. The career type is, as would be expected, related to age (eg. 46% of those aged 55 or over have had this career type compared with 32% of those aged 18-35). It is also associated with having high level qualifications on leaving initial full-time education (60% of those with A Level or higher compared with 39% of those with GCSEs or no qualifications). It is also associated with having trained during working life (50% of those who have trained off-the-job or towards qualifications compared with 32% of those who have not had in- service training at all).
TYPE C: ONE JOB ONLY (33% of the sample)	This type of career pattern is more likely for craft and semi-skilled workers (43%) and (of course) for younger workers. It is less likely for those who achieved at least A Level qualifications from their initial education (24%) and more likely for those who gained GCSEs or who did not get qualifications at all (35%). Those who have not trained at all in their working lives are more likely to have had this type of career (49%) while, comparatively, only 26% of those who have had training fall into this group.
TYPE D: CHANGED JOB OR SELF- EMPLOYMENT BUT LATER JOBS/SELF EMPLOYMENT NOT PERCEIVED AS BEING OF HIGHER STATUS (6% of the sample)	This group is relatively infrequent but is more frequent amongst craft and semi-skilled workers (10%) compared with professional staff (2%) and more frequent for those without qualifications (15%) than for those with degrees (0%).

Thus, it was shown earlier that having had different numbers of employers was not related to occupational type nor to levels of qualifications. However, the analysis in Table 11 suggests that whilst this was the case, the issue of progression *is* related to occupations and training/qualifications. Broadly, the most 'mobile' type of career,



'Type B', involving moves between *jobs* (rather than, necessarily, between employers), is more frequent at higher occupational levels, for those with higher initial educational qualifications, and for those who have formally trained in their working lives. Contrastingly, those in 'Type C' (only had one job) or 'Type D' (changed jobs but without progression) are associated with lower occupational grades, low qualification levels and absence of training.

Unemployment

Twenty-seven per cent of respondents reported that they had been unemployed during their working lives (unemployment in this case being defined as being out of work and looking for work for a period of 4 weeks or more).

This statistic was higher for craft and semi-skilled workers and lowest for managers and technical staff (Figure 27):



Figure 27: Proportion of industry workers who had been unemployed in their working lives (all respondents)

Sample base = 501

Likelihood of having been unemployed was, perhaps surprisingly, not related to respondents' ages in the sense that a longer working life greatly increased the chances of having been unemployed. In fact, the oldest group of workers, those aged over 65, were *least* likely to have suffered unemployment (Figure 28):



Figure 28: Proportion of workers of different ages who had been unemployed in their working lives (all respondents)



Sample base = 501

Nor was the likelihood strongly related to possession of qualifications: those without qualifications were the group most likely to have been unemployed but not by a great margin (Figure 29):

Figure 29: Proportion of workers with different highest qualification levels who had been unemployed in their working lives







Periods of unemployment for 4 weeks or more were not frequent. Sixty-eight per cent of those who had at least one such period had had only one or two such periods and a further 27% had had between 3 and 10 such periods. Only 5% had suffered more than 11 periods of unemployment (of 4 weeks or more). Here, however, there were notable differences according to occupation. Whilst, as above, professional and technical staff were only *somewhat* less likely than workers with lower skill levels to have been unemployed at all, they were *considerably* more likely than supervisory staff and craft and semi-skilled staff to have been unemployed only on one or two occasions (Figure 30):

Figure 30: Number of periods of unemployment of workers who had been unemployed (per cent of those who had been unemployed in their working lives)



There was, therefore, a corresponding relationship between workers' highest qualifications and the frequency of unemployment such that whilst 41% and 44% of those with no qualifications and Level 1 qualifications, respectively, who had been unemployed had been unemployed on 3 or more occasions, this was true only for 7% of those with graduate-level qualifications.

The average length of respondents' *longest* period of unemployment (amongst those who had been unemployed) was 5.8 months with only 15% of those who had been unemployed (6% of the whole sample of 501 respondents) having been unemployed for a continuous period of a year or more. The average duration of respondents'



longest periods of unemployment varied between occupational groups with the average period being shortest for managers at 4.7 months and longest for craft and semi-skilled workers at 6.4 months (professionals 6.0 months, technical staff 5.6 months, supervisory staff 6.1 months).

The average duration of longest periods of unemployment was also highest for those without qualifications, at 7.8 months. Durations for those with other levels of qualification varied between 4.2 months and 5.7 months, with no trend in this variation which clearly associated the two factors (of duration of longest period of unemployment and level of qualification from Level 1 upwards).

Mobility

In principle, a further feature of working lives which may be necessary for progression is mobility – willingness to relocate or work away from home. Overall, 19% of respondents had moved home to take up employment, 36% had stayed away from home frequently or for considerable periods, and 14% had worked abroad (Figure 31):



Figure 31: Mobility of industry workers (all respondents)

It can be seen that professional and technical staff were more likely to have moved house to take up employment and supervisory and craft and semi-skilled staff least likely to have done so. Working away from home was most frequent for craft and technical staff. Technical, professional, and managerial staff were most likely to have worked abroad.

However, when these indicators of mobility were related to respondents' perceptions of whether they had progressed or not, there were no strong relationships. People who had not *moved home* for employment were equally likely to report strong progression as those who had (53% in both cases). However, people who had not *worked away from home* for substantial periods were a little less likely (50%) to report strong progression than those who had (56%). The greatest margin was found in respect of *working abroad*. Sixty per cent of those who had done so reported strong progression compared with 50% of those who had not. It appears, thus, that some types of mobility – willingness to work away from home and/or abroad – have some relationship, possibly a causal one, with progression but this factor is one amongst many others, not a strong determinant.

Leaving the sector in future

The survey also investigated future movement out of the sector. As context for this, respondents were asked how satisfied they were to be working in the construction sector. Overall, there was a high degree of satisfaction. Half of respondents (49%) said they were very satisfied and a further 40% were quite satisfied. Seven per cent were neutral but only 3% were quite dissatisfied and only 2% were very dissatisfied. Satisfaction was higher for managers and professionals in the industry but not greatly so (Figure 32):



Figure 32: Proportions of industry workers who are very or quite satisfied to be working in the sector (all respondents)



Possibly reflecting these high satisfaction levels, only 11% of respondents said they could envisage leaving the construction sector to pursue a career in another sector. There is little obvious explanation for differences in this proportion between occupational levels (Figure 33):





However, there was some more clearly logical variation by age such that, as would be expected, older workers were less likely to consider career change. Thus, around 15% of workers aged 54 and under would consider changing sectors whilst only 6% of those aged 55 or over would do so.

The reasons for leaving the sector are shown in the following figure (Figure 34), as proportions of those who would consider leaving (84 cases) and as proportions of the whole sample (501 cases):



Figure 34: Reasons for considering leaving the sector (as per cents of those who would consider leaving and of whole sample)



Sample base = 501 (all respondents), 84 (respondents who would consider leaving the sector)

Because of small sub-sample bases, allocation of these reasons to different groups of workers is not highly reliable but again some 'logical' relationships were observed:

- Professional staff (47% compared with an average of 26%) were more likely to say they had other sector skills which could be re-applied.
- Managers (48% compared with an average of 32%) were most likely to say they had generic skills.
- Craft or semi-skilled workers (47% against an average of 34%) were most likely to say they might leave because of the industry's physical demands.



2.6 Progression and its drivers

'Career progression' has an objective meaning of advancement over time in the seniority, responsibility and rewards of jobs held in an industry. However, from the point of view of the individual, employment may have more varied advantages and disadvantages which, in combination, work to shape what individuals expect from their career. Simple pursuit of advancement in the objective sense may be moderated by other motives and values. The survey of workers in the industry investigated what other factors, in addition to the formal 'advancement' motives, were important to them (Figure 35):

Figure 35: Factors which are important to industry workers' careers (all respondents)



Sample base = 501

It can be seen that interest in the work itself and having independence in what work is taken on and/or how work is done have very high significance. Having a good work/ life balance is also important. Then, career progression itself, advancing in seniority, is important but for only around 7 out of 10 workers – not for a substantial minority – and a majority of workers don't want to be responsible for the work of others. High earnings per se are a motivation only

for just over half of the workforce. At the bottom of the scale, working in a substantial organisation with a significant number of colleagues is least important. Although the industry has a large volume of employment in small firms and self-employed teams, rather than in the larger organisations which are more obviously able to offer internal career advancement, this is not regarded as an important factor affecting workers' perceptions of their career and its motivations.

Those workers who said that increasing the seniority of their position in the industry was important were asked how satisfied they were with the progress they had made. Eighty-three per cent in total were very satisfied (47%) or quite satisfied (36%) on this count, 13% were neutral, and only 4% were quite dissatisfied (3%) or very dissatisfied (1%). Satisfaction as to progress made (amongst those for whom progression was important) was higher amongst managerial, professional and craft/semi-skilled staff than amongst technical and supervisory staff and was higher for older workers.

Similarly, workers who said they were motivated by high earnings were asked how satisfied they were with their current level of earnings. In this case, satisfaction levels were lower. Fifty-nine per cent in total were very satisfied (19%) or quite satisfied (40%), 26% were neutral, and 16% in total were quite dissatisfied (10%) or very dissatisfied (6%) with little significant variation between job roles and age groups in this case.

Overall, thus, it appears that the sector is generally able to satisfy career aspirations but somewhat less able to satisfy earnings expectations.

Within the overall picture, some notable variations in motivation are shown in Table 12:



Table 12: Variations in industry workers' motivations

	Notably higher for	Notably lower for
Rising or having risen in the industry in terms of the seniority of the position you hold		Craft or semi-skilled workers
Earning a large amount of	Men	
money	Managers	
Being interested in the work	Those with high level qualifications	
itself	Professional and technical staff	
Being close to where you	Those with no qualifications	
were brought up or feel most	Managers	
established	Young (18-24) and older (55+) workers	
Having social hours which	Craft or semi-skilled workers	
allow you a good life out of	Women	
work or with family	Those with no qualifications	
Working in circumstances	Young (18-24) and older (55+) workers	
where you have a significant number of work colleagues	Those with low or no qualifications	
Having a high degree of independence in what work you take on and/or how you do it	Men	Technical staff
Not having to be responsible	Older (55+) workers	
for the work of others	Those with low or no qualifications	

While many of the variations between the groups identified and their counterparts were not huge, the data suggests that progression itself ('rising in the industry') is a lesser motivation at craft level and below than higher up the scale. Those workers with lower or no qualifications, perhaps predictably, more frequently value working in their 'home' or established location, value work/life balance, and absence of responsibility for others' work. Young workers and older ones too perhaps value less 'independent' situations, preferring to work in an established location, with colleagues, and without responsibility for the work of others.

Whilst these valuations of different aspects of employment and career development apply, a high proportion of industry workers, 84%, feel they have actually progressed. It should be noted that assessment of progression here is independent of the earlier analysis of progression (in Tables 10 and 11) which took into account actual changes in respondents' occupational groups and movement between jobs. In the analysis here, progression is wholly concerned with respondents' own feelings

- 'progression' in this sense may not have involved movement up an occupational ladder nor between employers, but may simply reflect individuals' feelings that they have, for example, gained more respect for their skills, more influence in their job role, or better pay. Although the proportion perceiving progression is somewhat higher for higher level staff, nonetheless, the proportion of lower level staff, craft and semi-skilled workers who feel they have progressed, is still high (Table 13):

	Managor	Professional	Tochnical	Supervisory	Craft or semi- skilled	Total
	%	%	%	%	%	%
No – not progressed	5	5	8	10	10	7
Slight progression	4	7	14	10	10	8
Moderate progression	23	38	24	32	37	32
Strong progression	67	50	54	48	41	52
Don't know	0	0	0	0	2	1
Total	100	100	100	100	100	100
Summary – not progressed	10	11	22	19	20	15
Summary – have progressed	90	89	78	81	78	84
Total	100	100	100	100	100	100
Sample bases	156	105	37	31	172	501

Table 13: Perceptions of industry workers as having progressed or not; PERCENTAGES

The above are column percentages

Perhaps unexpectedly, there was little significant variation in the sense of having progressed between workers of different ages, with younger workers aged 18 to 34 (88% progressed) actually being *more* likely than average (84%) to say they had progressed despite their relatively recent entry to the workforce.

Nor critically, was *perception* of progression strongly linked to possession of qualifications. The proportions of people with different levels of their highest qualification were similar, though those without qualifications were a little less likely to report progression (Table 14):



 Table 14: Perceptions of industry workers as having progressed or not by their highest level of qualification; PERCENTAGES

	No quals.	Level 1	Level 2	Level 3	Level 4	Level 5*	Prof. Inst. Member	Total
	%	%	%	%	%	%	%	%
No – not progressed	9	8	8	6	3	13	5	7
Slight progression	11	3	6	8	11	13	10	8
Moderate progression	35	38	27	28	30	27	26	32
Strong progression	45	50	59	58	56	47	59	52
Don't know	1	2	0	0	0	0	0	0
Total	100	100	100	100	100	100	100	100
Summary – not progressed	20	10	14	14	14	27	15	15
Summary – have progressed	80	88	86	86	86	73	85	85
Total	100	100	100	100	100	100	100	100
Sample bases	128	106	83	64	66	15	39	501

* Note: very small base

The above are column percentages

Turning from the characteristics of employment and careers which workers in the industry value and from respondents' perceptions of having progressed or not, respondents were asked to judge how important work experience, formal training, and qualifications had been to getting particular jobs in their career and to their ability to perform the work they did in their present position (Table 15):



Table 15: Perceived importance of work experience, formal training, andqualifications; PERCENTAGES

			e to getting bbs		tance to g present job
		Quite/very important	Quite/very unimportant	Quite/very important	Quite/very unimportant
Previous work experience	%	75	14	85	7
Formal training	%	54	26	56	24
Qualifications	%	37	45	38	42

Base: All 501 respondents

Notes: The above are row percentages; excludes 'unsure/neutral' proportions

It can be seen that work experience is regarded as being most important to gaining employment, with having undertaken formal training and having gained qualifications both being less important. The same hierarchy is observable for the importance of the factors in respondents' performance in their current occupations. Correspondingly, when asked directly which of the three inputs had been *most* important to getting to their present position, answers were:

- Work experience: 70%
- Formal training: 10%
- Qualifications: 10%
- Can't distinguish/all equal: 10%

There were some variations in the data on importance of the various factors (Table 16):



Table 16: Importance of different factors

	Notably higher for	Notably lower for
Importance of work experience to getting particular jobs	Those reporting significant career progression	
Importance of work experience to performance in current job	Those reporting significant career progression	
Importance of formal training to getting particular	The oldest group of workers (aged 65 or above)	
jobs	Those at higher degree level or with professional membership	
Importance of formal training to performance in	The oldest group of workers (aged 65 or above)	
current job	Those reporting significant career progression	
Importance of qualifications	Those in professional roles	Craft or semi-skilled
to getting particular jobs	Those reporting significant	workers
	career progression	Managers
		Those who feel they haven't progressed
Importance of qualifications to performance in current job	Those reporting strong career progression	

Again, the differences between groups of workers identified in this table and their counterparts are not huge. However, the analysis suggests that each of the factors has a relationship with perceptions of having progressed. More particularly, the importance of qualifications in getting jobs was particularly high for professional workers (55% reported this) and particularly low for craft and semi-skilled workers (27% reported this). Correspondingly, professional staff in the industry were most likely, at 18%, to rank qualifications as *most* important of the three factors to their performance in their present position and craft and semi-skilled workers least likely, at 5%, to give qualifications this ranking.

Barriers to progression

Respondents were also asked to identify factors which had constrained their career progression. Around a third of respondents could not identify any barriers and no single barrier was reported by much more than a third of respondents. However, the most frequently reported barriers were lack of demand for construction work in the area local to the respondent and two regulatory factors – the regulations themselves and the cost of certification to undertake certain types of construction work. Of the



career development factors, absence of careers guidance and formal training were barriers for around 1 in 6 industry workers but absence of qualifications for fewer than 1 in 10. Industry structure factors – small business units and frequent sub-contract arrangements – were felt to be barriers by around 1 in 8 respondents (Figure 36):







Within these overall statistics, some particular relationships of the barriers to industry roles were also observed (Table 17):

Tight regulations	Particularly reported at managerial and professional level and by craft and semi-skilled workers rather than at intermediate, technical and supervisory, levels
Cost of certification	The same pattern as for regulation itself was apparent
Family ties	Perhaps surprisingly, given the supposed mobility of higher skilled workers in the economy in general, and the high proportion of professional staff who had actually relocated (as reported earlier), professional staff were significantly more likely to report this barrier
Working in small companies	This was more likely to be reported as a barrier to progression by professional, technical, and supervisory staff and less likely to be reported by managers and craft or semi-skilled workers
Not having qualifications	Similarly, this barrier was more frequently reported by professional, technical, or supervisory staff than by managers and craft or semi-skilled workers
Health problems	More frequent for craft and semi-skilled workers than for other groups

Table 17: Impact of barriers on particular job roles

In addition to these relationships, technical, supervisory and craft or semi-skilled staff were marginally *less* likely to report *any* barrier to progression (35% in each case said 'no barriers') than were those higher up the occupational scale at managerial level (30% 'no barriers') and professional level (27% 'no barriers'). Generally, however, those who reported that they felt they had progressed strongly in their careers to date were more likely (38% compared with 25%) to report absence of barriers to progression than those who reported lesser or no progression.

There were few other significant or consistent relationships between the possible barriers to progression and the age of respondents but some *were* observed:

- Lack of formal training was felt most keenly (by 27% compared with an average of 15%) by those in the 25-34 years age bracket.
- Not having had access to careers guidance was reported particularly by 45-54 year olds (by 19%) but was notably a lesser concern at age 55 or above (11% reported this barrier) a 'mid-life' effect might by hypothesised.



- Family ties were most significant as a barrier, as would be expected, in the middle years, 35 to 54 years, when children of parents of this age are most likely to be in their school years.
- Working in small companies was reported as a barrier by younger people (aged 44 and below) much more frequently than by those older than this – perhaps reflecting their presence in age groups in which career development is a more pressing concern to individuals and the constraint therefore has most impact.

Earnings and progression

Respondents were asked at the end of the survey to reveal their current pre-tax annual earnings. Twenty-six per cent of respondents preferred not to answer this question. However, based on the 74% who did give their earnings, the following table, Table 18, sets out the average for different groups in the workforce:

	£
All workers (373)	34,800
Men (344)	35,200
Women (29)	30,200
Manager (112)	37,800
Professional (89)	42,000
Technical (32)	34,500
Supervisory (24)	29,400
Craft and semi-skilled (116)	27,500
18-24 years (5)	27,500
25-34 years (29)	32,600
35-44 years (60	34,300
45-54 years (120)	37,800
55-64 years (100	33,700
65 years or older (54)	33,400

Table 18: Average annua	I earnings (to nearest £100);	AMOUNTS
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continued

In-service training or education	
None	30,400
On-the-job only	35,100
Formal, off-the-job but not to qualification	38,100
To a qualification	35,000
Highest qualification	
No qualification (81)	29,600
Level 1 (78)	29,600
Level 2 (66)	39,000
Level 3 (50)	30,000
Level 4 (49)	43,600
Level 5 (13)	36,300
Professional Institute membership (36)	43,400
Progression to date	
No progression (27)	20,600
Slight progression (30)	28,300
Moderate progression (112)	30,400
Strong progression (202)	40,000

Bases in brackets

It can be seen that many of the group bases are quite or very small and in these cases, the average figures are not reliable. However, allowing for this, the data suggests general relationships:

- On average, men are paid more highly than women.
- The highest paid occupational group comprises professionals in the industry, followed by managers.
- Earnings rise with age as far as the 45 to 54 age group but workers who have been in the sector for a long time, those aged 55 or over, include enough cases of lower wages, to generate average wages which are lower than those for 45-54 year olds (possibly, although the survey did not investigate this, because more workers in the older age group worked part-time or shorter hours).
- There appears to be a significant wage premium in the industry from achieving Level 2 qualifications (and the industry positions associated with this level) and a smaller one from achieving Level 4, degree level



qualifications but not, perhaps surprisingly, from Level 3 or Level 5 qualifications.

- However, *training to qualifications* during working life (that is, excluding education and training prior to starting work) does not appear to associate with a premium greater than that of undertaking *training per se* (though formal off-the-job training appears to do so).
- Respondents' sense of having progressed in the industry is clearly related to earnings level.

2.7 Future training or study

Looking to the future, respondents were asked if they had firm plans to undertake training or study to advance their career. Overall, 16% of respondents had such plans with the proportion being highest for people in intermediate positions (technical and supervisory levels) and lowest for craft and semi-skilled workers (Figure 37):



Figure 37: Proportion of industry workers with firm plans to study or train to advance their career (all respondents)

Sample base = 501

As would be anticipated, the proportion was highest for young workers and declined thereafter (Figure 38):





Figure 38: Proportion of industry workers in different age groups with firm plans to study or train to advance their careers (all respondents)

However, the proportion was lowest for those who reported no progression in their career to date and was as likely for those who had already progressed strongly as for those who had made slight progress – generally, lack of progression did not appear to stimulate interest in future training and study(Figure 39):



Figure 39: Proportion planning to study or train in relation to perceived career progression to date (all respondents)



Correspondingly, the likelihood of future study or training was strongest for those whose highest qualification to date was at the higher end of the spectrum rather than at the lower end (Figure 40):


Figure 40: Proportion planning to study or train in relation to highest qualification to date (all respondents)



Finally, seventy-five per cent of those planning to study or train expected to get a qualification from the study or training at a variety of levels (Figure 41):



Figure 41: Anticipated qualifications from further study or training (as per cent of those who expect to study or train to a qualification)





This section presents the findings from the research on the views and experiences of employers. It brings together data from the survey of employers and from in-depth qualitative interviews with employers.

3.1 Profile of employers in the quantitative survey

Quotas were set for size of business, sector and nation, to ensure that the sample (of 201 employers) was representative of the population of construction sector businesses in terms of their size, sector and location in one or other of the UK home nations.

More than eight in ten employers had 2-9 employees¹¹. About one in seven had 10-49 employees, leaving very few with 50 or more employees (Figure 42):



Figure 42: Size of employers (all employers)

¹¹ This includes all directors, managers, and full-time and part-time staff but not casual staff or subcontractors.



The main sectors were building completion & finishing, architectural & engineering activities, and construction of residential & non-residential buildings (Figure 43):



Figure 43: Nature of business (all employers)

More than eight in ten employers (85%) were based in England, with 8% based in Scotland, 4% in Wales and 3% in Northern Ireland.

Reflecting the dominance of small employers, 90% had just one permanent office. Of those with more than one office, 5% had 2-5 offices, and 5% more than 5 offices.

3.2 Employer perceptions of staff progression in the construction industry

Ambition and opportunity

Employers in the survey were asked how frequently they thought people in the industry tended to want to move upwards in the course of their careers. They were asked this in respect of each main occupational group in the industry.

Employers believed that staff in higher order occupations were more likely to want career progression than those in lower order occupations. The proportions saying 'very' or 'fairly frequently' ranged from 33% saying labourers wanted career progression to 55% that industry managers did so. There were sizeable proportions of employers unable to provide a response across all occupational groups (Figure 44).





In the qualitative interviews, there were mixed views as to whether or not the construction industry is one in which people tend to be ambitious and want to progress as far as they can. Some felt that those working within the construction industry were generally ambitious, others felt they were not, and others felt that levels of ambition varied, and were often dependent on the personality traits of the individual themselves, rather than on their position. Logically, some respondents felt

that younger staff were more ambitious than older ones. Some views, reflecting the variety of perspectives, were:

"We've got the full range - some people that have been general operative labourers since the day they left school and will be on the day they finish, and we've got other people who start at the bottom and work their way up." (Employer, Civil Engineering)

"Within the same level, some are always chomping at the bit saying 'when am I going to get signed off on this? When am I going to get promoted?' whereas others are quite happy to carry on on a day-to-day basis." (Employer, Geotechnical)

"I think a lot of them are fixed in their ways to be honest with you, like a lot of people in construction ultimately. At the end of the day I think everybody just, dare I say, plods along." (Employer, Electrical and General Building)

"We've taken on a lot of reasonably young people who are quite keen to move on and up in the world." (Employer, Civil Engineering)

Another key factor which was felt to influence levels of ambition was the extent of *opportunities* for progression. Some felt it was likely that staff within smaller companies, or sectors with more limited career prospects, were less ambitious:

"We've got nothing to work towards really - we're just painters, we've done all the training." (Employer, Painting and Decorating)

"If you're restricted in career progression, then you just tend to sit back and go with the flow." (Employer, Electrical and General Building)

Where staff were perceived to be ambitious, this was often seen by respondents as being in terms of money, but also of status and responsibility. Ambition was seen by some employers as being in terms of job security and stability, and by other employers in terms of employees achieving satisfaction with their working environment or enjoyment of their job.

There were also mixed views as to whether staff felt they would need to leave their company in order to progress. Smaller companies generally believed that staff felt they would need to leave due to a lack of opportunities (although a couple noted that expected expansion may allow for promotion), whilst those working for larger companies felt that there *were* sufficient opportunities for progression. One respondent working for a larger company suggested that some staff at managerial levels may feel they need to leave if seeking director-level positions, due to the restricted availability of these positions:

"The people who tend to leave are the degree qualified type folk, who are moving on up in the world. I would say kind of tradesmen, general operativetype people tend to stay." (Employer, Civil Engineering) Some employers interviewed qualitatively believed that the industry offers opportunities for progression but primarily, as above, for people working in large companies who can move upwards internally, or in urban areas where job change without moving house is possible. Correspondingly, progression for staff of the large number of small companies in the industry was felt to be more difficult, particularly if these were in rural or semi-rural areas. Thus, employers suggested, for example:

"I suppose the biggest barrier is what size company you're working for really...if you're working for a smaller company, probably you'll find once you've reached a particular level that they don't have anything higher to move to." (Employer, Civil Engineering)

"With the larger companies...there is scope for movement and progression... with the smaller companies, you tend to kind of get mingled in to a number of different roles, obviously to support the company...and therefore the career progression as such is limited, purely on that basis." (Employer, Electrical and General Building)

"If you're happy moving to different organisations, there is opportunity to go on and up in the world, but generally that involves a new company or a new part of the country." (Employer, Civil Engineering)

Overall, key barriers to career progression, over and above individual variation in ambition, identified in qualitative discussions included:

- The size of the company smaller companies were generally perceived to offer fewer opportunities for career progression;
- Being employed in rural areas;
- The nature of some trades which, usually deployed in small business units, offered little progression once fully-skilled (and often self-employed) status had been reached;
- The financial climate some felt the recession had limited the number of jobs and opportunities for promotion available; and
- A lack of training one employer felt that a lack of training for those at labourer level limited opportunities for career progression. Several felt that those at semi-skilled or craftsman level required greater training in areas other than their trade itself; for example, in business or ICT skills. One respondent also noted a lack of training within their sub-sector.

3.3 Qualifications and progression

Employers in the *survey* were asked how important having relevant qualifications was to each of the occupational groups' promotion prospects.



Proportions of employers saying it was 'essential' or 'quite important' that people had relevant qualifications ranged from 38% in respect of labourers to 76% in respect of managers (Figure 45):

Figure 45: Importance of different occupational groups having relevant qualifications for their career progression (all employers)



In the *qualitative* research there were mixed views on the importance of qualifications. For some employers, it was perceived that qualifications were important (yet not always essential) to progression, whilst for most respondents, experience was viewed as more important.

Those employers in the survey who said that it was either 'essential' or 'quite important' that specific occupational groups had qualifications, were asked how good they thought the construction industry was at helping these staff acquire the relevant qualifications.



Around half of employers felt that the construction industry was good ('very' or 'quite good') at helping staff to acquire the relevant qualifications with fairly small variations in this respect between occupational groups but significant proportions were less positive (or unsure) (Figure 46):

Figure 46: How good the construction industry is at helping different occupational groups acquire relevant qualifications (where say qualifications are quite important or essential)



Unweighted sample bases shown in brackets

3.4 The role of qualifications in recruitment

As context for discussion of the role of qualifications, employers in the quantitative survey were asked at what occupational levels their staff were employed.

The most frequent category was managers, with two-thirds of employers saying they had staff at this level. At least a third had staff in all other occupational groups except labourers and apprentices (Figure 47):



Figure 47: The different occupational levels employed (all employers)

There were few significant differences by sector. However, businesses in architectural & engineering activities were more likely than those in other sectors to employ technical/professional staff (75% compared to 25% of those in building construction and 31% of those in specialised construction activities). Those in building construction were more likely to employ labourers (37% compared to 17% in architectural & engineering activities).

The following chart shows the proportion of companies employing each occupational group who said it would be *advantageous* for staff in the different group to have a formal qualification when applying for jobs. Majorities of employers thought it was advantageous for higher level occupations to be qualified. However, fewer than half thought this was the case for semi-skilled staff and only around a quarter felt it was advantageous for labourers and apprentices to have qualifications when applying (Figure 48):



Figure 48: Proportions of employers saying that it would be advantageous for applicants to have a formal qualification (where employ occupational groups)



There were very few differences in these views by sector. However, those employers in architectural & engineering activities (85%) and building construction (72%) were more likely to say that it would be advantageous for managers to have formal qualifications, compared to those in specialist construction activities (44%).

Among those who thought it was advantageous for particular occupational groups to have qualifications when applying for jobs, the actual types of qualifications which employers valued varied, as the table (Table 19) overleaf shows.

Managers were most likely to be expected to have an HNC/HND, although sizeable proportions of employers also expected them to have a degree in construction or a NVQ Level 3 qualification. More than four in ten expected technical/professional staff to have a degree and just under a quarter expected them to have an HNC/HND.

Supervisors were generally expected to have an NVQ Level 3 qualification, although there was also mention of HNC/HND and NVQ Level 2 qualifications. Craftspersons and semi-skilled workers were expected to have NVQ Level 3 or Level 2.

Labourers were more likely to be expected to have CSCS Cards, although more than a quarter of employers each expected them to have NVQ Level 3 or NVQ Level 2 qualifications. A half of employers expected apprentices to have GCSEs (Table 19):



Table 19: The qualifications that would be advantageous to different occupational groups (where qualifications would be advantageous); PERCENTAGES

	Managers	Technical or professional staff	Supervisors	Crafts- persons	Semi- skilled workers	Labourers	Apprentices
	%	%	%	%	%	%	%
Higher degree or professional qualification in construction	11	11	3	1	2	4	0
Higher degree or professional qualification not in construction	5	2	3	4	7	4	0
Degree or equivalent in construction	28	44	9	9	2	4	0
Degree or equivalent not in construction	14	13	3	1	2	4	0
Technical level of qualification such as HNC or HND	33	23	22	6	11	15	2
NVQ/SVQ/City and Guilds/ other craft-related qualification at Level 3	24	11	44	40	29	27	3
NVQ/SVQ/City and Guilds/ other craft-related qualification at Level 2	11	6	21	38	23	27	23
NVQ/SVQ/City and Guilds/ other craft-related qualification at Level 1	5	8	4	15	11	16	1
A Level(s)	3	<0.5	0	0	0	0	23
GCSE(s)	2	<0.5	0	1	11	4	51
Any related to job role(unspecified)	7	7	7	6	7	11	2
CSCS Cards	3	0	3	4	7	30	3
Health & Safety Certificates	1	0	1	0	1	1	1
SSSTS - Site Supervisor Safety Training Scheme	2	0	<0.5	0	0	0	0
First Aid Certificate	0	0	0	0	5	0	0
SMSTS - Site Manager Safety Training Scheme	2	0	4	0	0	0	0
IPAF/ Pasma (Scaffold/ Tower training)	2	0	2	0	0	0	0
CITB Certificate	0	0	0	<0.5	0	0	0
NEBOSH Certificate	0	0	0	0	0	0	0
Other	5	10%	17	14	14	8	0
Unweighted sample bases, * Caution small bases	104	101	64	66	46	22*	19*



For employers who said that qualifications were *essential* for a particular occupational group (rather than just advantageous), apprentices were the key group for whom qualifications were most frequently seen as essential. Sizeable proportions also mentioned craftspersons and technical/professional staff (Figure 49):





Unweighted sample bases shown in brackets * Caution small bases

Employers interviewed qualitatively who employed individuals in *managerial* roles tended to view qualifications as less important than work experience in recruiting for these positions. One respondent (Civil Engineering and General Construction) did, however, feel that sector-related qualifications were particularly important at this level, whilst others felt that management qualifications were important to assist them in running the business. Other respondents noted the importance of other qualifications at managerial level, for example:

- Engineering degrees related to their relevant field (Civil Engineering);
- NVQ Level 4 in Construction Site Management, SMSTS Certificate and Scaffolders Card (Scaffolding); and
- NEBOSH/ IOSH (for Health and Safety Managers).

One (Scaffolding) employer suggested that qualifications were of greater importance for those recruited externally, in order to prove their competence, than in upgrading an existing employee whose skills were recognisable without qualifications. Employers interviewed qualitatively who employed individuals in *technical or professional* roles also often perceived qualifications to be of greatest importance when recruiting rather than when promoting. The specific types of qualifications required at this level varied greatly between employers, and also between different roles and disciplines within their companies. Examples of types of qualifications required included degrees, NVQs (at Level 3 or 4) or City and Guild qualification in a relevant discipline. One property developer also noted the need for degrees, SMSTS (on-site safety) Card, NVQ Level 6 and/or Relevant Professional Body Diploma at this level:

"It would depend on the role that you were looking for...if you're looking for a professional or technical person, you may look at the professional qualifications somebody may have." (Employer, Electrical and General Building)

"Obviously if you're taking on an engineer, we would expect them to have an engineering degree." (Employer, Civil Engineering)

Employers interviewed qualitatively who employed individuals in *supervisory* positions reported that although qualifications were generally viewed as important, work experience was typically of greater importance for these positions. Four (of the twelve) employers interviewed said that they would require particular qualifications (for example, NVQs and other relevant qualifications). However, experience was still viewed as being more important.

Qualifications for supervisors were most important to the scaffolding employer interviewed, who highlighted that their industry was heavily regulated and therefore required all staff to have some form of qualifications. The required qualifications included an SMSTS certificate or Scaffolding Supervisor Certificate. It was again noted, however, that these were less important for staff promoted internally:

"If they're inside the company, we would take less relevance on qualifications than we would do if they're from outside of the organisation." (Employer, Scaffolding)

Employers interviewed qualitatively who employed individuals *in craft and semi-skilled roles* had mixed views on the importance of qualifications when recruiting. Largely, this depended on the role the individual was entering.

For example, the scaffolding respondent again highlighted the fact that their industry was heavily regulated and therefore required all staff, including craft and semi-skilled staff, to have some form of qualifications. Qualifications required included an NASC Scaffolders Card (either basic or advanced) to prove their competency.

Another employer suggested that qualifications for applicants for craft occupations were not essential but desirable:

"You're talking people who are carpenters, bricklayers...ideally they would have some sort of qualification to back that up." (Employer, Civil Engineering).

Other employers mentioned specific qualifications required, such as fork-lift qualifications (plant drivers within a civil engineering company) and Scaffolding Part 1 and 2 Qualifications (in a scaffolding company).

However, other employers believed that job-specific qualifications were less or not important. For these respondents, either GCSEs or no qualifications at all were required providing recruits had other positive attributes, such as enthusiasm and confidence, and 'on-the-job' experience was frequently more highly valued. For these employers, rather than job-specific qualifications, the qualifications required at this level were often health and safety requirements, which were essential for them to work on site (for example, a CSCS Safety Card).

It was also noted that qualifications were important in the use of *subcontractors*, to prove that they could undertake tasks without needing to be trained.

3.5 The role of work experience and training in recruitment

Respondents in the *employer survey* were asked how important it was that applicants at different levels should have significant work experience in the same role.

This was considered an important aspect, with around nine in ten employers believing it was important for higher order occupational levels. Seven in ten employers also expected semi-skilled workers to have significant work experience and more than half of the employers in the survey expected labourers they recruited to be experienced (Figure 50):



Figure 50: The importance of work experience to different occupational groups (where employ occupational groups)



Employers interviewed *qualitatively* believed that, in the construction industry generally, although qualifications were sometimes valued, *work experience* tended to be valued more. One respondent felt that qualifications were not particularly valued for lower-level staff, for example, labourers.

"It's always seemed to be work experience that gets people further than qualifications." (Employer, Screen Manufacturing)

Another employer said:

"Experience counts for almost everything really." (Employer, House Building)

Whilst another reported that:

"We tend to find that people who've done the job, tend to know what they're doing. Sometimes training courses people go on are not particularly brilliant, so they might have a bit of paper, but it doesn't mean they're any good at doing the job." (Employer, Civil Engineering) Considering the value of work experience at different occupational levels, this was generally viewed to be of greater importance than qualifications for those at a *managerial* level. Respondents noted that those seeking managerial positions were required to have many years of experience in the relevant field and ideally management experience. For some positions, it was important for them to have held a relevant technical/professional position (for example, to have been an engineer) or to have site experience:

"The company as a whole didn't necessarily look for people that were technically qualified, they looked more at the experience that somebody had during the course of their careers elsewhere." (Employer, Geotechnical)

"Most of it goes on the experience they've had working on sites." (Employer, Civil Engineering)

However, a few suggested that qualifications *were* more important than experience (particularly for those recruited externally, and for staff in particular positions such as Health and Safety Managers).

Respondents reported that *technical and professional staff* were also required to have experience in their relevant specific disciplines. However, staff at these levels were required to be trained to the level necessary to fulfil their job and qualifications were often perceived to be more important at this level (than at managerial level). For some of the lower level positions (such as graduate civil engineer), having had experience was ideal but not essential and employers recognised that experience was not always possible for those straight out of education.

Experience (particularly site experience) was widely considered as important when recruiting staff for *supervisory* positions. Experience at this level was often viewed to be of greater importance than qualifications. This was also true of internal staff promoted to supervisory positions.

"Normally we would take supervisors on who have got many years' site experience, or we promote internally people who've had a lot of experience with us." (Employer, Civil Engineering)

It was most frequently believed that experience was as, or more, important than qualifications when recruiting staff for *craft and semi-skilled positions* and, in particular, it was considered essential for *subcontracted* staff to have experience relevant to their position.

Employers in the *survey* were also asked how important it was for applicants to have had *previous formal training* related to the role, even if they did not have a qualification.



Whilst this was considered important for most occupational groups, it was not as important as work experience (see Figure 50) at any of the occupational levels and particularly for semi-skilled workers and craftspersons for whom work experience was much more frequently seen as important than was formal training (Figure 51):





Unweighted sample bases shown in brackets

3.6 Staff development, its characteristics and barriers

Training activity

Those employers (in the employer survey) with staff in particular occupational groups were asked what training they had sponsored in the last year for each group. Overall, 49% said they had supplied training to some employees (including 37% who had trained all staff) but 51% had not trained anyone. Larger businesses were more likely to have trained *any* occupational group in the last year than smaller employers.

Training levels varied, with apprentices and supervisors more likely to have been trained in the last year than other groups. Managers were the least likely to have received training (Figure 52):



Figure 52: The proportions of employers who supplied training to different occupational groups (where employ occupational groups)



Unweighted sample bases shown in brackets

It was often believed by employers interviewed *qualitatively* that companies within the construction industry were committed to delivering training and qualifications to their staff. This was particularly true of their younger staff, including apprentices. Some noted that commitment, however, varied between companies and sectors. One for example, felt that certain companies, such as those in the oil refinery and infrastructure sectors, were more committed to training than those in the house building sector. A representative comment from one employer was:

"Some companies spend a lot of time and money on it, others none. It depends who you end up working for, and a fair bit on which sector you end up working in." (Employer, Civil Engineering)

Some employers also felt that companies were particularly committed to providing health and safety training, rather than training to develop their staff as such, or that certain occupations were trained and developed more than others (scaffolders, supervisors, managerial staff, and trainee site managers were some examples mentioned). Other employers reported that their own companies did not seek to develop their staff as the businesses were too small for this and there were limited opportunities for progression. One noted that staff recruited to the company were usually previously trained to a sufficient level to undertake their role:



"Not really - I take them on and they're already trained and that is their career really." (Employer, Paint and Decorating)

However, the majority of employers in the qualitative interviews said that training was provided to staff within the company, but typically on an ad hoc or intermittent basis as required. However, two larger employers reported that they had more regular formal training programmes in place:

"We try very hard to provide people with training so that they do have that opportunity to a) be safer on site and b) be more knowledgeable on site. If we can encourage and motivate our staff then they will work harder for us." (Employer, General Construction)

The type of training supplied to employees varied between employers, and was dependent on the particular construction sector or discipline. The most common subject area of training was, however, health and safety training, due to regulations and the requirement for certification to allow staff to work on site.

Among those employers *surveyed* who had trained different occupational groups, the proportions where training had *led to a qualification* also varied. Apprentices' training was much more likely to have led to a qualification, particularly compared to training for managers or labourers (Figure 53):



Figure 53: The proportions where training had led towards a qualification (where supplied training occupational groups)



The table overleaf (Table 20) shows the qualifications to which training had led for each occupational group.

NVQ Level 2 was the most frequent qualification, particularly for lower occupational groups. Training among technical/professional staff was more likely to lead to an HNC/HND, whilst among managers and apprentices it was more likely to lead to NVQ Level 3. Sizeable proportions of employers also mentioned other qualifications (not listed) which were acquired by most of the occupational groups (Table 20):



Table 20: Qualifications that the training led to (where training led to a qualification); PERCENTAGES

	Managers	Technical or professional staff	Supervisors	Crafts- persons	Semi-skilled workers	Labourers	Apprentices
	%	%	%	%	%	%	%
Higher degree or professional qualification in construction	9	13	0	0	0	0	0
Higher degree or professional qualification not in construction	<0.5	0	0	0	0	0	<0.5
Degree or equivalent in construction	8	9	0	0	0	0	0
Degree or equivalent not in construction	<0.5	1	0	0	0	0	0
Technical level of qualification such as HNC or HND	6	28	13	13	16	0	10
NVQ/SVQ/City and Guilds/ other craft-related qualification at Level 3	23	16	16	23	2	0	31
NVQ/SVQ/City and Guilds/ other craft-related qualification at Level 2	<0.5	18	17	26	24	42	38
NVQ/SVQ/City and Guilds/ other craft-related qualification at Level 1	7	2	<0.5	0	1	8	7
Any related to job role(unspecified)	3	<0.5	3	4	5	0	<0.5
CSCS Cards	0	1	0	0	5	1	0
Health & Safety Certificates	9	8	6	7	20	13	0
SSSTS - Site Supervisor Safety Training Scheme	8	0	20	0	0	0	0
First Aid Certificate	8	<0.5	0	8	1	18	0
SMSTS - Site Manager Safety Training Scheme	16	0	0	0	0	0	0
IPAF/ Pasma (Scaffold/ Tower training)	15	6	0	0	<0.5	1	0
CITB Certificate	0	0	0	5	20	1	0
NEBOSH Certificate	0	1	0	0	0	0	0
Other	27	15	26	20	24	38	38
Unweighted sample bases, * Caution small bases	37	40	38	29*	26*	16*	35



Qualitative interviews with employers also suggest that, as would be expected, the nature of training supplied varies depending on the particular levels of staff. For example:

- **Managerial** typically managerial qualifications. For health and safety managers, qualifications such as the NEBOSH and IOSH were common.
- **Technical/professional staff** qualifications relevant to their role, typically NVQs or degrees (the latter within larger companies and within the civil engineering, geotechnical and scaffolding companies).
- Craft and semi-skilled training on how to use relevant machines and vehicles (such as fork lift trucks), manual handling, and training to undertake specific job role, such as Scaffolders Course, LUCAS cards¹².

Training by these employers tended to be delivered by external providers, particularly that towards accredited qualifications and health and safety training. 'On-the-job' informal training was, of course, usually delivered internally.

Several employers stated that their company provided Apprenticeship training through a government programme. Most respondents, however, did not, often giving difficult economic conditions as the reason for not doing so. One employer also said that legislation on working hours and health and safety were key barriers to taking on Apprentices. A few were considering providing Apprenticeships in the future but had concerns about this:

"Our biggest worry is what happens if we don't have enough work for them. Last year, we had eight staff at one time including us and now we don't there is only three of us. In the current economic climate, it is really really tough. We would love to take on an apprentice, but it wouldn't be fair on that apprentice if we suddenly turn around and say we can't afford to keep you on." (Employer, General Construction).

Many employers in the qualitative interviews contributed to, and drew upon, the CITB levy to support their staff training. A couple of smaller businesses, however, said that their turnover was not sufficient to be required to contribute to the CITB level.

The most common factor influencing the nature of training supplied to staff tended to be legislation or regulation, particularly in relation to Health and Safety. Other important factors included skills shortages or gaps (reported by many), customer expectations and requirements, and, to a lesser extent, requests from employees. One employer also said that company image and reputation was a factor. A range of comments on training include:

¹² Health and Safety certification permitting engineering and construction work on the London Underground



"A lot of the training that we do is driven around the health and safety requirements that are now in place, or that are required on the CDM¹³. So we look to train people in that field, rather than their trade. Really, the majority of people we employ are usually trade qualified or experienced, and don't need necessarily any further training in what they do." (Employer, Electrical and General Building)

"We're obliged by our Scaffolding Confederation - NASC - to ensure that 50% of our labour is trained to NVQ 2 and NVQ 3." (Employer, Scaffolding)

"Over the last few years, our clients are requesting our staff to be more qualified...we now get people who are looking for NVQ Lead Driller for the people that operate the drill rigs...our clients are requesting specific qualifications for road repair and things like that, so we have to provide that training." (Employer, Geotechnical)

"We obviously look to what skills we need, what people we need." (Employer, Civil Engineering)

"A lot of the management stuff and the business stuff is driven by where we see ourselves going, and what skills we want people to have to get there." (Employer, Civil Engineering)

Impact of training

Employers interviewed qualitatively generally felt that staff responded well to training. Many said that their staff were enthusiastic or keen to be trained and often completed courses and performed well. It was largely felt that response to training was more dependent on the individual themselves (and their personality characteristics) than their position:

"We've got some people who are completely and utterly disinterested through to other people who have done everything through to Masters level." (Employer, Civil engineering)

"They're usually quite happy about it, because it's not something that we'd force them to do anyway as a matter of course, so it usually comes from them that they want to do it." (Employer, Geotechnical)

¹³ Construction Design and Management Regulations



"A lot of people obviously give enthusiasm, because they have an additional string to their bow at the end of the day, and they want to show that they can actually put it into practice." (Employer, Electrical and general building)

"They are keen to get trained, because it means they can have more authority, get better paid and whatever." (Employer, Scaffolding)

Training was perceived to have several positive impacts upon staff, firstly, of course, in providing employees with more skills to make them better at their job. A minority of employers believed that training and qualifications can increase the likelihood of promotion (either internally or securing a job elsewhere). Other positive impacts included increased confidence, motivation, increased authority within the work place, and safer working procedures. Two examples of positive comments on training impacts were:

"I would say that they feel more confident in what they're doing, and feel like they've got more of a purpose." (Employer, Geotechnical)

"It enables some people to work their way up over the years, from basic labourers in some cases to site managers." (Employer, Civil engineering)

Training was often reported as having little or no impact on staff retention. Two employers, however, felt that it had a positive impact while one reported a negative impact:

"We sometimes lose between a quarter and a third of people when we train them...because we're one of the few scaffolding companies that puts an awful lot of money into training...so they come to this company to get trained and then they disappear after." (Employer, Scaffolding)

Opportunities for promotion and their relation to staff development

Respondents in the *employer survey* were asked about opportunities for promotion in their company.

The following graph shows the proportion of employers who said their company had opportunities for staff promotion (green bars) and those who said it did not (red bars), by type of business (sector, size and type of staff employed).

Promotional opportunities were particularly high in larger businesses and for apprentices and supervisors (Figure 54):



Figure 54: The proportion of companies that have opportunities for staff to be promoted to higher level positions – by profile of business (all employers)



* Caution small bases

Among those employers in the survey who had promotion opportunities, 50% said they had a preference for internal promotion, 12% had a preference for external promotion, and 38% said they had no preference or it depended on individual cases.

Many employers interviewed *qualitatively* (particularly those respondents working for larger companies) felt that there were opportunities for staff to progress within their



own company. The nature of progression varied, with some offering opportunities for progression through all levels from labourer to director, whilst others offered more limited progression (for example, promotion from labourer to semi-skilled worker):

"Virtually all of our site supervisors have worked their way up, started as either Labourers or Tradesmen and worked their way up." (Employer, Civil Engineering)

"Well you start off as a labourer, then work your way up and start making screens. Then into my job, as a manager, and then into Head Office." (Employer, Screen manufacturing)

"The group managing director was a former labourer." (Employer, Scaffolding)

Some of the smaller companies did not, however, offer opportunities for progression, simply due to the size of their business:

"It's only a small business, I'm there all the time, so we don't really need any promotions or anything." (Employer, Painting and Decorating)

Where opportunities for internal promotion were available, these were largely dependent on performance of staff and sufficiency of experience in the relevant area. It was particularly important for staff to be able to prove their skills in order to undertake a more senior role. For one employer, qualifications were felt to enhance the likelihood of promotion, whilst for most these were not a factor. A couple additionally noted that attitude and enthusiasm were key factors in whether a staff member was granted a promotion.

In the *employer survey*, eight in ten employers (80%) who had staff promotion opportunities said their company had deliberately developed staff through training or by giving them the necessary experience for promotion.

Among these, 24% said this was a formal process recognised in company plans/budgets, 65% said it was informal, and 7% said both.

Deliberate development of staff was undertaken across all occupational levels, but particularly so for managers, technical/professional staff and supervisors (Figure 55):



Figure 55: Occupational groups which are deliberately developed for promotion (where company deliberately develops staff for promotion)



As with employers in the quantitative survey, employers interviewed *qualitatively* generally preferred to promote internally, rather than recruit staff externally. This was largely as they could then be confident that staff have sufficient proven experience to undertake the role. One also recalled problems they had recruiting staff externally, for example, internal politics and resentment amongst existing staff:

"For my people, we normally internally promote first. We've had a lot of problems if we've got somebody in from outside in a higher position...it's getting them to be accepted, people get the hump right away." (Geotechnical)

A few noted that they recruited staff externally in certain circumstances, for example, in times of high workload, and if in need of particular skills or experience not available within the company.

In the *employer survey*, the majority of employers who deliberately developed staff for promotion used a variety of methods, particularly on-the-job training and formal mentoring (Figure 56):



Figure 56: Activities which the staff development process involves (where company deliberately develops staff for promotion)



3.7 Barriers to training

In the *employer survey*, more than eight in ten employers (83%) said the training or staff development that their company supplies is *not* limited by the unavailability of courses or qualifications they needed, 13% said it was limited, and 3% were not sure. Those employers more likely to see unavailability as a training barrier were:

- Those employing semi-skilled staff (21%) and supervisors (20%);
- Those working in specialised construction activities (20%).

Employers reporting problems with a lack of courses or qualifications gave various reasons for this: 43% cited training not being available in the area; 35% not available at the right time; and 32% not available at all.

The 10 employers who had said that the training courses were not available *at all* were asked for the subjects, qualifications and levels of the unavailable training. These are shown below:

- Senior management level, Diploma, NVQ Level 5;
- Solar PV, Installation of Solar PV, NVQ Level 3;
- Glass Processing, NVQ Levels 1-3;
- Tri Fusion welding;
- Manufacture in the glazing industry, NVQ /City & Guilds, Level 1-4;
- Scaffolding courses, Levels 1-3;



- Computer, ICT, advanced level;
- Project Management, BTEC, Level 4;
- Linemarking Qualifications, NVQ Levels 3 and above;
- Skilled 'older' trades, such as leaded light manufacturing.

Employers in the survey were also asked if there were other factors which limited the training or staff development their company supplied. More than half said there was nothing that limited the amount of training they undertook. However, some mentioned the company being too small, not being able to afford staff time, courses being too expensive, and difficulty in sourcing funding (Figure 57):

Figure 57: Factors which limit the training or staff development the company supplies (all employers)





Two-thirds of employers (66%) said they had not drawn down from the *levy system* to pay for staff training, 14% had done so, and 20% were not sure. Larger companies were more likely to have drawn down from the system: 56% of those with 100+ employees; 61% with 50-99; 32% with 10-49; and 9% with 2-9.

Amongst employers interviewed *qualitatively*, most believed that the current availability of training was sufficient for their needs, and therefore did not require anything further:

"There doesn't seem to be any problem getting training - there's plenty of providers out there...We've got quite a few training organisations down here and quite a big college as well, so there's no problem getting people onto courses generally." (Employer, Civil Engineering)

Some did, however, identify gaps or weaknesses in training. For example:

- One respondent recalled poor quality teaching of a HNC course at a local college, leading to low pass rates amongst staff;
- One felt restricted by the unavailability of weekend courses;
- One was unable to find suitable intensive bricklaying course (week long, rather than day courses) or management courses focused on construction within their locality:

"For example, we really want to offer a bricklaying course...because it just expands our knowledge base and fills a gap. But you just can't find a week long or a 3-week intensive bricklaying course locally - there aren't any. You can do day-release bricklaying which is not what we want." (Employer, General Construction)

• One was unavailable to source training that combines practical skills and business acumen within their locality.

As with employers in the survey, the *main* factors constraining the amount of training provided by companies tended to be cost (of both the training and associated loss of earnings), and more importantly being unable to release staff for the period of the training. These factors were particularly prominent within the smaller companies. Many factors (which were prompted for in the interviews) were usually *not* believed to have an influence over whether training is provided or not. These included: fear of staff leaving (even those who were aware that this was the case simply accepted it); preference to recruit rather than train (companies generally preferred to promote internally); and staff resistance (motivation and enthusiasm for training tended to be high). Some comments on constraints to training were:



"Pressures of work I suppose – having people away from the day-to-day activity...the job comes first at the end of the day." (Employer, House Building)

"Time is probably the only constraint, because obviously we're taking people off working sites to do the training so we have to try and fit it around productive work as well as the training." (Employer, Civil Engineering)

"It depends obviously on the funds available at the end of the day, you know. Obviously trading hasn't been very well received this year, obviously there's been a major downturn in construction, so unfortunately the training often kind of gets hit first." (Employer, Electrical and General Building)

"Unfortunately cost kind of has a big bearing in the construction industry...that seems to be the main driver of whether you undertake something, unless legislation comes in where you have to do a certain course to maintain the business requirement and to accommodate the legislation that's being passed at the time." (Employer, Electrical and General Building)

Respondents largely felt that sufficient training was supplied within their companies, and therefore tended not to identify impacts of staff not being trained. Where they were identified, however, impacts included staff not having the necessary skills to bring wider value to their roles (for example, craftsmen or semi-skilled workers not having business acumen). One respondent – who had experienced poor quality training from a local provider – noted that, as a result, several staff left the company resulting in capacity issues.

3.8 Reasons for leaving the company

In the *employer survey*, employers were asked why permanent members of staff had left the company in the last 2 years, if any had done so.

Almost two-thirds of employers said no staff had left. Among those who had, the main reasons were moving to another construction company for a similar position, moving into another industry entirely, retiring, or moving to another construction company to take up a higher position (Figure 58):



Figure 58: Reasons for staff leaving the company in the last 2 years (all employers)



Unweighted sample base=201

About three-quarters (74%) of employers who had experienced staff leaving, said that the training or development supplied by their company had helped them to make this move.

Respondents interviewed *qualitatively* were also asked about the extent to which staff leave to enter other sectors. Employers generally believed that there was only limited interaction between the construction industry and other sectors. However, a few employers noted instances where staff had *joined* the company after working in other sectors, or moved to other sectors subsequently. Movement included both:

- Movement between similar roles/other construction areas for example, staff within a geotechnical company had worked in engineering and electronics.
- Movement involving more diverse roles, for example:
- One labourer had left to become a car salesman.



- One respondent noted that a director at the company had a background in the IT sector – this was felt to be beneficial as they brought a different set of skills to the company.
- One employer in road surfacing noted that people within the company sometimes came from or moved into the road transport industry if having the (driving) qualifications required in both sectors.
- One property development respondent reported that staff had previously been in retail.

Where movement occurred, it was typically felt that this occurred due to local opportunities, and also people wanting a career change or 'change of scenery'.

The main reason for the perceived lack of movement between the construction sector and other sectors was that once trained in one particular area or skill, it was difficult to transfer this to other sectors without relevant experience:

"I think it's down to obviously you get kind of pigeon-holed into kind of one element of work, and sometimes it's difficult to cross into another field unless you've got some experience within that field." (Employer, Electrical and General Building)

"Once you've trained and settled into one type of business, it's quite difficult to jump across." (Employer, Civil Engineering)

4 The provider and stakeholder perspective

This section explores the views of providers of training for the construction sector (including HE and FE institutions and private providers) and of Federations and Associations. These contributors to the research were interviewed qualitatively (that is, using a discussion guide as the basis of the interview which allowed respondents to express their views freely).

4.1 Perceptions of recruitment and progression in the construction industry

What employers look for when recruiting staff

Providers, Federations and Associations all shared a similar view that employers looked for a combination of factors when recruiting staff. These included:

• *Experience*: proven experience was seen by all groups as the key thing employers look for when recruiting. This was seen as becoming particularly important since the economic downturn as employers were reluctant to train or not able to fund training. In particular Federations and Association felt experience was more important than qualifications:

"For example, if you are looking at a CV of two candidates - one of which is fresh out of university or college and has the qualifications, then if you have got someone who has managed to get work experience - then that will probably help them more in getting that role." (Association)

"Businesses probably value experience over qualification with it being a practical profession." (Federation)

"Right now, because we're in a recession...they're basically looking I think to recruit people who've got all the skills that they need, and are ready and able to go straight into the work that's required." (Federation)

 Qualifications: providers, Federations and Associations all agreed that having the relevant qualifications was still important in the sector but that this would vary by the type of role undertaken and on the individual employer. As might be expected, providers were slightly more likely to think that qualifications were of importance to employers and several providers noted that they believed qualifications were becoming increasingly important. However, one private provider noted than often individuals were the ones to pay for such training leading to qualifications in the belief that employers would value these:

"All employers that are looking at taking on extra staff look to see if they already have a qualification in that particular field and so individual staff are encouraged to get the qualification or certificate." (Private provider)



• *Attitude*: one Federation and one Association noted that they believed employers would look to recruit individuals who were enthusiastic about working in the sector and were hard workers:

"We hear a lot from members about how difficult it is to find people with the right skills and who are willing to work." (Federation)

It was also noted by some respondents that there a lot of informal recruitment in the construction sector with many individuals entering family businesses. Thus, qualifications and previous experience were less of factor when recruiting in these cases:

"Many of the businesses are family businesses. They may take on someone that they know or a family member may start to work within their business." (Federation)

"You've got a lot of people who if they have a son or nephew, they will train them up instead to go into the business." (FE provider)

Opportunities and interest in progression

Respondents noted that the extent to which workers and employers in the sector value and aspire to progression varies depended on the individual. It was noted amongst respondents that people with 'office' jobs in sub-sectors such as architecture were more likely to seek and perceive opportunities for progression, whilst for others in craft and semi-skilled roles they are often content doing the same work for a longer period of time as they enjoy it:

"I think people, if they're a carpenter, the chances are they're going to be a carpenter. If they lay bricks, that's probably what they're going to do for the rest of their life." (HE provider)

"It's not so much ambition, it's more about earning a living. The majority in the industry do not really think ahead in terms of having a 5-10 year career plan. They may know, for example, that they want to do an Apprenticeship but not necessarily look beyond this point." (FE provider)

"There is a lot of garbage talked in the press about the £40,000 a year bricklayer...what we stress to people here is that this is an industry in which you will be able to earn a living - a good and honest living and be able to look after family, but it ain't going to make you a millionaire." (FE provider)

Providers, Federations and Associations all noted that many individuals in the sector were mainly ambitious in terms of achieving sufficient wages for a good quality of life and eventually establishing their own businesses or working for themselves. However, they were less likely to see progression in terms of a 'career ladder' on which they steadily progress in seniority:


"Their way of fulfilling their ambitions is to start their own businesses rather than to progress up a career ladder in a bigger company." (Federation)

"Quite a lot of people fall into construction rather than choosing it as a career choice. The ones who progress really well – it is almost by accident." (FE provider)

There were mixed opinions amongst respondents regarding the extent to which there is a clear progression structure in the construction industry. A few respondents referred to clear pathways set out by CSkills which they felt presented the opportunities for progression very well. However, the majority of respondents believed reality to be more mixed and complex and that clarity of pathways for progression tended to be related to routes on offer within larger companies and the workload at any given time; that is, when there is a higher workload there are more opportunities available:

"I don't feel there's a proper structure you could work your way through, unless you work for one of the big six or eight construction companies, but even then there's issues because they generally don't employ craft skills directly." (Private provider)

"One of the problems with the construction industry is that it's very much dictated by the workload, and the opportunities to progress are proportional to the amount of work the industry's got on. The last few years, we've been in the recession and it's been quite difficult." (Private provider)

"A lot of companies have been pretty much holding fort and there hasn't been a great deal of movement up or down." (Association)

There was also an emerging view that progression pathways in craft and semi-skilled professions were less well articulated. In addition, for many of these types of workers who are self-employed there are no further opportunities for progression unless they choose to grow their business:

"The industry is so sub-contracted, you work for yourself and you sub-contract yourself to a firm, there's no opportunities." (HE provider)

"Self-employed people face some difficulties in their career progression, as there's not much funding available for them for training etc." (Federation)

The role of training and education in industry progression

Although it was noted as important (and an area which respondents were passionate about in discussion) for the most part the view was that further training and education did not appear to be as strongly related (in the opinion of the majority of providers, Federations and Associations) to promotion and progression when weighted against other factors. It was noted by some respondents that training and

qualifications seemed to be most important in the early stages of career development – ensuring that employees had the right skillsets and theoretical knowledge – but subsequently experience and opportunity became more critical factors.

There was a view voiced by one provider that, once individuals are in employment, employers become less committed to providing training, due to funding and time constraints. Thus, if older individuals want to undertake qualifications and training, they often have to pay for it themselves which prevents them from applying:

"I don't have the phone running off the hook saying 'I'm thirty-two, I want to be a site manager, have you got any courses?" (FE provider)

There was a view amongst some providers that employers will fund training when they are pushed into it through necessity e.g. since the introduction of the CSCS card. One FE provider noted that they believed the volume of NVQ courses delivered would reduce if the link to CSCS was removed. Associated with this view, one provider also noted that a lot of the training delivered 'on the technical side' is driven by the need to improve quality on site not specifically by the needs of the individual.

4.2 Gaps in the provision of relevant training and qualifications

Respondents were asked to identify where they believed there were gaps in current training and provision. Federations and Associations mainly commented that they did not see many gaps as they undertook regular reviews of training demand and supported the development of new training when this was required:

"It's a constantly involving process where we're looking at training needs, and filling the gaps." (Federation)

"We've identified all the training that's required, and there are training providers out there who can deliver it." (Federation)

However, some areas for further development were identified, including:

- Better training and support for women in the industry. One Federation noted that currently women are very under-represented in the industry and there is also a problem for women who train within the profession (e.g. surveyors), who then leave the industry after reaching a certain stage.
- A course for qualifications in running a building business.
- Further qualifications and training around sustainable materials and the sustainability agenda.
- Further IT skills such as 3D design.
- Training to bridge the gap between Level 3 in Advanced Crafts and Junior Management.
- Further employability skills training
- More specific training for fitters.

4.3 Improving training and progression in the construction industry

Barriers to training and progression

Providers, Federations and Associations noted several challenges, currently faced in the construction industry, which collectively act as barriers to training and progression in the sector. These include:

- Funding issues: Since the economic downturn employers have had less money to place workers in training. Thus, much of the funding for courses has come either from individuals or through government-subsidised programmes.
- Confusion around qualification and progression routes: One provider noted that changes to qualifications and the QCF can be very challenging for employers to understand and as such may be off-putting as they are not sure what different qualifications offer. To address this, one Association suggested that the sector needed to improve on communicating the opportunities available to employers.
- Learning disabilities and low qualification levels: One Federation noted that a
 lot of people are attracted to careers in construction because they are
 practical and action-based, suitable for 'hands-on' people. However, such
 people may not have had a strong academic experience at school or may
 have learning disabilities, so 'the last thing they feel that they want to do is go
 back and sit in a classroom environment':

"There is a higher than average propensity for people in construction to have even slight learning difficulties around maybe dyslexia or difficulties with reading and that kind of thing that puts them off training as well, along with the fear of being made to look daft in training sessions." (Federation)

Improvements needed

In order to address barriers to training and progression in the industry, respondents suggested a variety of changes and improvement that could be made:

- Raise awareness of the types of courses and funding available: several respondents noted that employers are not that aware of the types of grant funding available to them, for example, from CITB. One Federation noted it is currently working on what they can do to improve communications and have thought about more one-to-one contact, although this would be costly.
- Improve levels of *funding overall* for training in the industry in order to support employers and increase investment in training.
- Provide additional funding for training and courses for supervisory roles: Government cuts from supervisory courses to focus on getting the unemployed back to work mean that individuals at the middle level are not always able to progress due to lack of funding for them to do suitable courses:



"Small to medium-sized businesses are now struggling to push their really good supervisor to site manager/management due to the cost of qualifying them – which is very expensive." (Federation)

• Improve *careers advice* for young people and the overall marketing of the industry to improve perceptions amongst teachers and learners to increase take-up in the industry:

"Construction isn't seen as a dynamic industry." (Federation)

"When I was at school you either went into wood work or metal work and then went into that trade but there was never anything past that...I am now involved with several colleges that promote what we do." (Private provider)

• *Closer relationships* between CSkills and providers and other industry bodies to ensure provision is consistent with good coverage and to ensure a joined up approach to marketing opportunities and lobbying:

"The future is about collaboration and partnership working, and the more CITB and others can do that - and I think a lot of that is happening already - that can only be a positive thing for the future reinvigoration of the industry." (HE provider)

5 Overview

The research generates several insights into the significance of education and training in the construction sector and its relationship to career progression. A first set of insights derive from 'structural' or objective observations of the relationships between various factual positions and circumstances. A second set derive from the subjective perceptions of contributors in the varied elements of the research.

Three main areas of '**structural**' analysis are considered (mainly drawing on the survey of people working in the industry):

- The role of education, training, and qualifications
- The nature of working lives in the industry
- Progression in the industry

As context for consideration of these three areas, two contextual factors are significant. First, they relate to a workforce which (in the survey sample at least) is quite 'old' – 25% of respondents were aged under 44 and 43% were aged 55 or over. The observations are influenced, therefore, by positions and circumstances which (in the case of respondents' early education, for example) applied some time ago. Secondly, a particular group in the occupational analyses – that of managers – very often concerns managers of the very small businesses which predominate in the industry and in the survey. These individuals are, thus, not corporate managers at the head of substantial management teams, but rather people who are 'hands on' in their businesses, in some cases, perhaps themselves undertaking some physical construction work. Having, in many cases, started life in manual trades, their characteristics (in their education or qualifications, for example) might be expected to be similar in some respects to people still in those trades (who themselves might achieve the same kind of managerial status in future).

With these thoughts in mind, a first set of summary observations, on education, training, and qualifications, is set out:

- 34% of workers got no qualifications at age 16 and the average number of A-C grade GCSEs (for those who got qualifications) was five – though the number of passes at this level is higher for younger workers (suggesting, perhaps, that construction is sharing in the general movement towards increased frequency of GCSE attainment in recent years).
- At age 16, four in ten workers went straight into employment and a quarter into apprenticeships. Only a third took a further education path (13% into 6th Forms and 20% into FE).
- Vocational qualifications (mainly related to construction) in initial education and training were primarily acquired by those taking the **FE route** and by

those going into **apprenticeships**. Only 5% achieved a vocational qualification in their school education to age 16, only 8% of those who went into 6th Form did so at that stage, and those who went directly into employment were unlikely to do so immediately – indicated by the findings that, overall, only 17% of the workforce has undertaken in-service education or training leading to qualifications, many of those who did so were in higher level occupations, and much in-service education or training was at Level 3 or above.

- Overall, only 10% of the workforce went to University as part of their initial (pre-employment) education – most of these undertook degrees with a relationship to construction sector activity.
- As above, only 17% of the workforce has undertaken in-service education or training but rather more, 23% of the workforce, have acquired qualifications from assessment of existing skills and knowledge. However, as with inservice education and training, this is again somewhat more likely for those in higher level occupations and somewhat less likely for those in craft or lower skilled jobs.
- Including all forms of routes to qualification (initial education and training of various kinds, in-service education and training, and assessment of skills and knowledge), these routes have produced a workforce with a modest qualification profile 47% have no or only Level 1 qualifications and only a quarter (24%) have qualifications at Level 4 or above [either through degrees (13%), higher degrees (3%), or professional memberships (8%)].
- Only 16% of the workforce have plans to undertake training or study to advance their career, this proportion being higher for younger workers and being lowest (at 13%) for those in craft or semi-skilled jobs.

A first general view on these observations is that the education/training/qualifications profile of the industry is a modest one – limited in achievement of qualifications at age 16, high numbers of entrants into employment directly following the statutory school leaving age, relatively few graduate staff, and a moderate level of in-service education and training of the degree of formality which leads to certification. It is also evident that (as in most sectors), the acquisition of in-service qualifications, whether by education and training or by assessment, tends to 'add qualifications to qualifications', both routes being somewhat more likely to be pursued by those in higher level occupations.

Secondly, when the overall picture of initial education and 'first destinations' at age 16 is considered in relation to the current occupational status of workers, it is seen that there *is* an 'academic' career path, in common with many other industries. For example, 49% of those who went into the 6th Form at age 16 are now in professional jobs as are 48% of those who went into FE. The comparative figures are 16% of

those who went directly into employment and 8% of those who undertook an apprenticeship.

However, while professional status is not wholly closed to those who do not pursue their formal education after age 16, achievement of management status is clearly much more open. The proportions of those becoming managers (albeit in many cases of very small enterprises) is higher for those who undertook apprenticeships (38%) than for those who went through University (33%), those who went from FE College into employment (30%), those who went directly into employment at age 16 (27%), or those who went into employment following the 6th Form (25%). While the 6th Form/FE routes are clearly more likely to generate higher-level occupational outcomes overall (because they are likely to generate high levels of professional status **plus** reasonable levels of managerial status), it is evident that management status is achieved with reasonable frequency by movement from trade skills developed in initial apprenticeships or in employment entered directly at age 16. Notwithstanding the limitations of education, training and qualifications in the industry (as discussed above), there is no significant sense in the analysis that responsible occupations in the industry are wholly restricted to those who make particular educational choices at age 16.

Turning to working lives in the industry, a number of key findings are evident from the research:

- 71% of industry staff spent their whole working lives (an average of 32 years in the survey) in the industry.
- For the 29% of staff who had worked outside construction, this was mainly at the beginning of their working lives – they had entered construction from another sector, not left and then re-entered the sector. This finding was supported by employers in qualitative discussions who suggested that most people, once in construction, tended to stay in the industry once they had developed marketable skills and experience.
- Self-employment was very frequent 85% of workers (and 97% of craft and semi-skilled workers) had experience of self-employment (though only 13% had been **only** self-employed in their working careers and 80% **entered** the sector in a job, not via self-employment).
- Most of the 87% who had been employed in construction had had only a small number of employers – 81% of these people had had no more than 5 employers and 24% had had only one.
- Unemployment amongst construction workers was quite limited. Only 24% of people said they had been unemployed for any continuous periods of 4 weeks or more. Of these, 68% had experienced no more than two such periods and



only 15% (less than 4% of the whole sample) had experienced a continuous period of unemployment of a year or more¹⁴.

- Physical mobility in the sector was evident but not experienced by a majority of workers – 19% had moved home for a job, 36% had stayed away from home frequently or for substantial periods, and 14% had worked abroad.
- Only 11% of workers would consider leaving the sector in future.

Overall, thus, a picture of working lives in the industry is one characterised by considerable **stability**. Despite the cyclical nature of demand in the industry and the necessity of many workers to move from project to project, continuity of employment/ self-employment (at least for those workers who have stayed in the industry) was considerable and the likelihood of moving out of the sector (and then often for retirement or because of the physical demands of the work) was low.

Examination of industry **progression** was also positive. Three different forms of analysis were undertaken:

- Of movement between different occupational groups.
- Of movement which also included progression by changing jobs **within** an occupational group.
- Of **subjective** sense of progression irrespective of whether this involved changing jobs at all.

In the first case, 52% of people had 'objectively' progressed – in the sense of moving up an occupational grade – with the largest single number of progressions being from craft to management level. 46% had stayed within the same occupational grade and only 3% had downgraded.

In the second case, in which those who said they had got a better job within the same occupational group were added to those who had moved from a lower occupational group to a higher one, 60% of people had progressed.

In the third case, 84% of workers *subjectively* felt they had progressed 'moderately' or 'strongly' even if this had not involved changes in job, whether within or between occupational groups.

These three summary analyses set out above – of education, training and qualifications in the industry, of working lives, and of progression – offer a picture of the industry in which, despite limited participation and achievement in the first of these, working lives have been largely secure and have offered widespread progression.

¹⁴ Although it should be recognised that some construction workers who had experienced lengthy unemployment may have left the industry as a result and were not, therefore, included in the survey.



Essentially, though part of the motivation for the research was that the industry lacks well-defined career paths, the research suggests that, perhaps more 'organically' and perhaps without a high dependence on formal qualifications, the industry has provided an environment in which upward movement in job terms is quite frequent and in which workers' **sense** of progression (perhaps in some cases without obvious change in occupational group or job title) is much more usual than not.

Moving to more **subjective or perceptual analyses**, four areas of analysis are considered:

- Overall satisfaction with the industry
- The perceived value of qualifications
- Workforce motivations in respect of progression
- Perceived barriers to progression

The first point concerning **employer satisfaction** is a simple but important one. It is that nine out of ten people working in the industry (89%) are very (49%) or quite (40%) satisfied to be doing so and only 5% are dissatisfied. Satisfaction extends across all groups with the lowest satisfaction rate being 86% in the case of craft and semi-skilled workers. Essentially, whatever the 'external' concerns (of industry organisations and stakeholders) to build better career paths, the driver for this is essentially industry efficiency (and perhaps the requirement to attract a more highly qualified set of young entrants) not a majorly constrained or unhappy existing workforce.

In respect of perceptions of the value of qualifications, these were widely perceived to be less significant to obtaining employment and workforce performance than work experience and formal training. When asked to say which of these factors was **most** important to obtaining their present post, 70% of respondents said work experience, only 10% in each case saying formal training or qualifications. These views were largely shared by employers and other stakeholders (training providers and industry organisations). Though these latter groups recognised that the relative significance of the three factors varied in respect of different occupations (particularly in cases where regulation imposed the need for gualifications) there was general assent that work-experience was the most important factor in recruitment. Though some of these latter groups believed qualifications were becoming more important, a countervailing view was that, when recruitment levels are low (as in the postrecessionary period), employers will demand experience as the best guarantee of the ability to perform from day one. A further insight into the issue of the relevance of qualifications to recruitment is offered by a comparison of workers' and employers' views (from their respective surveys):



Table 21: The views of industry workers and employers on the significance of qualifications; PERCENTAGES

	% of workers saying qualifications were important to getting present job	% of employers saying <i>advantageous</i> for workers to have qualifications when applying for jobs	% of employers saying essential for workers to have qualifications when applying for jobs
Managers	33	65	19
Professional Technical	55 41	88	43
Supervisory	48	60	32
Craft/semi-skilled	27	51	40

Note: the professional and technical figures in the 'workers' column should be individually compared with employers' responses not added together

This table shows:

- Generally, as would be expected, qualifications, in the eyes both of workers and employers, are most important for professional/technical grades.
- Employers distinguish quite sharply between 'advantageous' and 'essential' clearly, in many cases, while qualifications are a valuable asset, other factors, the main one evidently being work experience, can often counteract their absence.
- Worker views of the importance of their qualifications are mainly intermediate between employers' 'advantageous' and 'essential' percentages, perhaps implying a broad concurrence between the two groups but also perhaps suggesting that workers tend not to recognise the value of qualifications.
- The most obvious example of this concerns craft and semi-skilled workers who downgraded the significance of their qualifications below the employers" 'essential' ratings, implying that numbers of these workers clearly do not collectively recognise the significance of qualifications to their employment prospects in the current industry should job change be needed.

When asked what **motivated** them in their careers, industry workers most frequently reported interest in the work, independence, and a good work/life balance. However, over 7 out of 10 (72%) were motivated by progression – rising in seniority.

Interviewed qualitatively, employers and other stakeholders tended to focus on variation between individuals and between job grades – with those in craft or lower skilled jobs often being perceived as less ambitious. This was indeed the case in the



However, when employers were asked (in the employer survey) to **quantify** their views on how frequently people in different occupational groups wanted to move upwards in their career, proportions saying 'very' or 'fairly' frequently ranged from 55% in respect of managers to 33% in respect of labourers, with craft and semi-skilled workers at 40%.

The implication, with the employer figures being consistently below worker reports of the significance of progression, is perhaps the reverse of the analysis above: while workers may under-estimate the value of qualifications, employers may underestimate the desire of their workforces in many but not all individual cases to advance their careers.

Considering **barriers to progression**, lack of demand for labour and the imposition and costs of regulations were most frequently reported as constraints by industry workers. Consistent with their views reported above (on the relative significance of qualifications to employment and performance), qualifications was reported as a barrier by only 1 in 11 respondents (9%), rather fewer than reported lack of formal training (15%) or of access to careers information and guidance(16%) as barriers.

Employers and other stakeholders, whilst also recognising the demand constraint, tended to see barriers to progression in terms of 'nowhere to go' in a 'trade' sense (once qualified to craft level and possibly having achieved self-employed status, there was very restricted opportunity for upward movement) or in a 'small firm' sense (very low capacity to move upward in an enterprise comprising, say, an owner/manager and a handful of staff). Corresponding to this last view, progression (other than into self-employment) was often seen by these respondents as a 'large firm' phenomenon in which there were more obvious opportunities for promotion, with instances in which individuals had moved a very significant distance, from manual to high-level management positions, being given in evidence. However, individual workers recognised this last issue relatively infrequently, only 13% saying that working in small firms represented a career constraint.

In addition to the 'structural' and 'perceptual' observations described above, discussions with employers and other stakeholders made a number of points directly concerned with management of skills supply into the industry.

Firstly, 13% of employers in the employer survey said that the availability of appropriate training was limited. Some of this, however, was a matter of *local* unavailability and some that the training was not available at times which suited their business schedules. Only 5% said that it was not available *at all*. When this type of 'unavailable training' was described, identified needs (of which there were 10 cases) were diverse (covering, for example, welding, solar installation, glazing, scaffolding,



line-marking, and so on). In qualitative discussions with employers, most employers refuted the idea of shortages of provision, noting the plethora of training suppliers and courses. Though again, some specialist requirements were observed, these referred to course timings more than to course content.

Other stakeholders (training providers, Federations and Associations) were also largely satisfied that sufficient and appropriate training was in place, noting that their roles were to be alert and responsive to demand. However, as with employers, some specialist deficiencies *were* identified (including, for example, 3D design, training for fitters, more training support for women, training to run a building business, and others).

The main point is that, though there may be some particular gaps in the training system as it applies to construction, the research did not observe any strong sense, either from the demand side (employers) or from the supply side (providers and industry organisations), that there are widespread or consistent gaps.

Finally, the 'other stakeholders' in the research (providers, Federations and Associations) were asked to identify improvements which would improve training supply to the industry and/or which would improve progression. Basic issues were identified as being funding limitations (as construction businesses remained cash-constrained), some confusion arising from changes to qualification systems and consequent employer uncertainty as to the value of some qualifications, and some resistance to learning by non-academic entrants to the industry.

In response, necessary policy responses were suggested as:

- Awareness-raising in the industry of the training which is available and of such external funding support as is available.
- Increased external funding for training to increase overall investment in training.
- Continued marketing of the industry to teachers and young learners to improve the sector's image and to increase the educational quality of entrants.
- Stronger partnership between CITB and other industry bodies to co-ordinate marketing into the industry and to strengthen the industry's presentation to government and the outside world.



Appendix 1: Case studies of individual workers

"Martin"*

Building Energy

Martin is the owner of a small company which specialises in the Building Energy Sector. He works on a self-employed basis with two employees. His work is based in England, Wales and Scotland and involves EPCs and SAT calculations carried out for domestic properties such as new builds and within the sales and lettings market.

Martin left school with no qualifications but was interested in working within construction. This interest in wanting to pursue work within the construction industry led him to successfully complete his Apprenticeship in Engineering, as a means to gain some type of qualification after leaving school. During his Apprenticeship, he discovered that although he definitely wanted to work in construction, he did not want to continue further in the engineering field.

During his Apprenticeship, his interest to pursue work in joinery led him to complete a further five year Advanced City and Guilds Apprenticeship in Carpentry and Joinery, and his aspiration to work within the construction industry continued. During this time, he realised that moving into Quantity Surveying would be suited to his ambitions and the experience gained at the time. For 38 years, he worked as a Buildings Inspector for different local authorities. He gained further training in this role and studied for a Full Tech and HNC on a day release basis. He also gained a professional qualification to access membership of the Institute of Architects and Surveyors and gained Chartered Surveyor Status. He was fortunate as all this training was funded by his employer. During this time he was promoted to Chartered Surveyor which led to a position as a Building Control Manager.

The next job in his career was as an Approved Inspector, working on behalf of a private company for nine months. In his eyes this job was a step down from his previous role as a Buildings Control Manager. He felt it was a job that filled the time before he moved into retirement. Following nine months employment as an Approved Inspector, he decided that the training and experience, along with the qualifications gained over the years would be well suited to working for himself. Since, he has worked on a self-employed basis as an Energy Consultant. He is happy with his decision to become his own boss, believing this was the right place for him in his career aspirations.

"I'd always been working for someone else, I would be able to work by myself."

He has always been self-determined and seen training as opportunities to help him progress in his career. As a self-employed Energy Consultant, he took further training and gained his Apel EPC qualification; which he gained through evidencing his experience over the years for accreditation. He also attended a Sustainable Homes Course (3 days) – both self-funded. He believes that the training and work experience he has acquired has been very important in his career progression when applying for jobs and work during his various roles over the years.

"You can't do it without [work experience]. You can't learn it from books."

Reflecting back on his career journey, it has been enriched by the support of his

mentors (e.g. Heads of Sections and Managers). Martin feels that dyslexia held him back, particularly early on in his career, due to struggling with written exams. However, this has not held him back in gaining his qualifications and training as the exams he was required to take over the years have tended to be of the tick box type.

"Just useful mentors, who have guided me along the way when I've needed it."

Martin is happy with his career prospects at the moment. He wishes to continue concentrating on developing his own business to handover when the time is right. His plans for the future involve finding ways to increase his business turnover so that it will be a "saleable entity" when he wishes to retire. Currently, Martin is continuing with further training with the aid of a Business Mentor to help with the employment of staff. He does not see a time when he will not be involved in construction in some way even after retirement.

He has a very positive outlook on the construction industry with the view that there are a variety of jobs and opportunities on offer.

"Harry"*

General Building

Harry is currently the Managing Director of his small building company and has always had a keen interest in construction from the age of five. He had always done some types of carpentry/joinery at school and this enthused him to pursue a career in joinery.

He left school at the age of 15 with school certificates. His career within the construction industry started with an Apprenticeship in joinery. Alongside this, he attended night school to complete his City and Guilds in Joinery and Building. After completing his Apprenticeship, he started his first job in joinery. At this point, although employed as a joiner, his long-term career ambition was to become a Building Agent and move into Management. He worked as a joiner for less than a year, and felt it was not the right job for him. For a short while, he moved around, working for different companies to gain experience to ultimately be employed as a Manager. Over the years, Harry worked in various roles including Foreman joiner for 4 years, then as Site Agent, and being promoted to Contracts Manager, over the three years he was in this position.

He trained whilst he was a Foreman joiner with the Institute of Builders and continued with some further training with the Institute of Builders in his role as Site Agent. During his time as Site Manager, he travelled away from home which he feels helped his career as it broadened his outlook on work and the experiences gained were invaluable. Following this job, he moved onto a job he felt was better as a Projects Manager, with his own company car. He stayed in this role for the next 7 years with no sign of promotion to the next role. At this stage, he had gained endorsements in Quantity Surveying and Estimating. Harry left his job as Projects Manager and decided the time had come to become his own boss as a self-employed builder and Director of his own building company. He has successfully run his own company for the last 30 years. This is the point at which he feels he has made particular advances in his career – to become his own boss.

He believes that he has determined the course of his own career path and driven his own success in gaining the training and qualifications over the years.

"You don't have to do those qualifications, I chose to do them...I wanted to grow up to be the jobs I got, and you need those qualifications to do that kind of work. Every one of the qualifications has been useful to climb the ladder."

Reflecting back on his career journey, Harry has been ambitious in the past but now that he is close to retirement, does not see himself as ambitious in terms of career progression. In the past, he defined progress in terms of responsibility and money and his career progressed as he hoped. Over the years he has faced setbacks in his career, which he did have to put on hold due to his first wife who passed away.

He believes that qualifications, training and experience have all been useful in

securing new jobs and in helping him run his own company. Training and qualifications are the way forward and were invaluable to him.

"Without the training, I wouldn't have been able to run this company as I have done it for thirty-one years as efficiently."

Currently, Harry is still running his own company and nearing retirement, but wishes to carry on working. Nowadays he has a choice when and what he wants to work on and has days off when he likes – "semi-retirement."

Overall, his perception of the construction industry is that it is a good one to work in, although he acknowledges there is less work about. He believes that the construction industry offers good opportunities for people who want to work.

"Rav"*

Farm Builders

Rav is the Managing Director of a small company which specialises in constructionrelated work for farms. His work takes him across England, Wales and Scotland. He has also had opportunities to work in Northern Ireland and Germany. He left school at the age of 15 with four O Levels. His career began in construction with his first job as an Agricultural Contractor, working with farms and machinery for 13 month. Rav then moved on to work on a dairy farm for the next two years with duties in milking and farming. During this period he did not study further by attending college or university.

For the last 25 years, Rav has successfully been self-employed and invested this time in building up his company. During this period, he completed a German speaking course as a night class, which has helped him gain and carry out work in Germany. He has been very fortunate throughout his career and never found himself facing unemployment.

He feels that he is always learning and gaining knowledge to progress in his career and the work he does, which is driven by observing others. He is a strong believer in enhancing his current experiences and balancing them with accepting challenges. *"The more you take on, the more you learn. Listen, watch and observe."*

"Julia"*

Architecture

Julia has been an architect since 1979. She enjoyed art and design while she was in sixth form and believed that architecture would give her the opportunity to pursue this so she chose to study this at university.

Since qualifying as an architect Julia has worked for several architecture firms and has progressed in her skills and seniority as she has moved. Initially at the time she qualified the economic climate meant there were not many full-time positions available and she was made redundant from several roles as there was not sufficient work; however, she counts herself as fortunate as she was always able to find roles in other firms.

Currently Julia works for herself (sometimes in partnership with other firms) which she enjoys as it gives her more freedom and flexibility over the work she undertakes.

Julia found that one of the main barriers to her initial progression was her gender as not many people in the construction industry were used to working with women (particularly in the north of England); however, she feels this has improved in recent years. In addition she found since having children she was less likely to gain promotions as she was unable to commit as much additional 'out of hours' time to her role.

"Tommy"

Painting and Decorating

Tommy is a self-employed Painter and Decorator who owns a small company, currently employing nine members of staff. He works in the housing association sector on various properties for the elderly and disabled, mainly decorating bungalows.

Tommy left school at the age of 15 with basic English and Maths but no official qualifications. After leaving school, he registered on a 12 month Apprenticeship as a vehicle decorator painting coaches. During this 12 month period, Tommy was not sure what his career ambitions would be. After completing his 12 month Apprenticeship, Tommy left his job as he did not want to continue in this line of work but felt that by this point he had gained valuable practical experience.

"It was an extremely dirty job and I thought I could do better."

During this period, Tommy's brother was working for a large painting and decorating business and persuaded him to join as the company was looking for new apprentices to take on. Tommy joined and spent three years with the company as an apprentice painter and decorator. It was important to Tommy to be doing something and bringing in a wage. During this three-year period he also attended college to supplement his practical skills with the academic knowledge. Tommy gained his City and Guilds Certificate in Painting and Decorating along with exhibiting pieces of work in various galleries. His work led him to receiving many certificates for outstanding work.

At the age of 19, having completed his apprenticeship, Tommy felt that he had the knowledge and skills to work for himself.

"By the time I got to 19 years, I had acquired all the qualifications and I decided I would prefer to be my own boss."

During the three years Tommy was working for his employer, Tommy realised that he did want to work for himself but not as a standard painter and decorator but as a contractor. This is where he felt there was good money to be made. In his spare time, Tommy started visiting his local library researching council plans for buildings. He gained a good understanding of how the council maintains its buildings. Every five years, the Council was required to update its buildings, and this is where Tommy spotted his opportunity to begin working as a self-employed contractor. His first step towards his goal was to register on the council tendering list for such work.

Tommy's boss found out about his efforts to try and setup on his own and delivered Tommy with the ultimatum the he either stops pursuing working for himself or he will be sacked. Tommy left the company and setup on a self-employed basis. This decision has defined his career to date. Tommy continued learning at college and had a real thirst to keep improving and building on his knowledge.

"It was very intensive and very long hours of working, there was no time for doing



Tommy has always been ambitious and had the desire to work for himself. His father was also a decorator which has taught him much about the trade and what he wanted if he later chose to pursue the same profession.

"I was helping him when I was 13 years old. One thing I noticed about my father is that he was very often unemployed from Christmas to Easter, annually - he would not be working. Even when he was working, he didn't make much money. It's the contractors that make the money. I didn't want to be an average painter/decorator."

Over the years, Tommy has defined his progress in terms of earnings and contracts he has won. He is content with how his career has worked out.

"I'm satisfied, I'm still working and I enjoy doing the job – always enjoyed the trade."

In the 1970s, when Tommy had setup on his own and starting bringing his contracts in, he moved to Canada for a short while. Tommy feels that this enabled him to broaden his knowledge and skill set. He enriched his knowledge with innovative scaffolding techniques, time-keeping management and environmental practices.

One thing Tommy has learned over the years is that early on in his career, he had contracts everywhere but wasn't making money – he was working too cheap. He has learned from this and is now in a position to charge the amount that he feels the work and his time truly deserves.

"Now I can acquire the work I want at the price I want."

Tommy has a positive view towards the training and qualifications he has gained over the years. Tommy feels that the construction industry is a good place to be where you can progress.

"I learned 90% of what I know through work experience and would never belittle the training I gained. I had an excellent teacher [at college] and he inspired me. Without him, I wouldn't be what I am."

In his opinion, training is very important in career progression.

"There is a big difference between somebody who has properly trained compared to someone who has not. It shows in the way in which the work is carried out and in the end quality."

For a short period, ill health did hold Tommy and his work back but he has made a full recovery and back to work. In the future, Tommy is looking forward to continuing with his work and passing his experience and knowledge on to his newly recruited apprentices.

"Phil"*

Painting and Decorating

Phil is a self-employed painter and decorator. He owns a small company and has been self-employed for 28 years. He left school at the age of 16 with seven O Levels.

Since the age of eight, Phil had always accompanied his dad on jobs and continued to do so after leaving school. To supplement this work, he got a job as a general labourer within the building industry. On the weekends, Phil worked on a self-employed basis painting and decorating. His interest to work in the painting and decorating field grew from this weekend work.

Phil has worked all his life and always been in work. He has always been self-driven and motivated from an early age to work hard. Phil was always too busy working and never had time to study towards gaining qualifications. There was also the factor that Phil did not have the finances to train but believes that if he had been in a position to gain training and work experience, this would have been useful for his career progression.

"There are lots of avenues [in training] but not taken up as such, it's just down to [not having] time."

In his view, defining moments in his career progression include becoming his own boss and employing his own staff when the work got busy. Phil has always worked hard and the majority of the time he has worked long hours and seven days a week. Reflecting on this, he feels he was able to dedicate all his time to work because he has always enjoyed his job.

"Taking something and working with my hands – there is always going to be a need for this. Everything seems to be driven by universities, there is so much more you can do."

Phil has experienced a period in his career when ill health hindered progress. Experiencing medical problems did stop him from expanding his business and making it bigger. However, despite this setback, Phil is content with the size of his company and workforce. He would have had to deal with issues relating to needing bigger premises, which would have meant more cost. Early on in his career, earnings and status was a driving force but no longer as he is at a place in his life where he is content and satisfied.

"[the job] is a labour of love."

Phil believes that in the building trade you should always be hands-on.

"You should always be hands-on. I think that's what helped me through my career. The only way to learn is to be hands-on."



Phil has trained apprentices in the past and is an advocate of training and giving back to the industry as he feels he has gained so much from it. He is very careful about the people he trains who join his company and work alongside him.

"I can't take chances when training people like the bigger firms, as most of my work is domestic and down to trust."

Phil is a member of the Scottish Decorating Federation. Being part of the federation has raised his awareness of the types of training, grants and opportunities available. He believes the construction industry is a good one to develop in with many opportunities to train in different ways.

"I am a great advocate of training but you need the theory too....It's a good job and a good place to be. There are plenty of opportunities if you want to take them."

Phil has recently taken on a new apprentice and envisages that he will continue to stay busy and work hard in the future. He currently has enough work that he already has the next three months planned with jobs.

"David"*

Painting and decorating

David is a self-employed painter and decorator and has been in trade for 45 years.

Prior to being self-employed for the last 30 years, David left school at the age of 16 and started working with his uncle who was in the building trade. He realised he was good at and enjoyed painting and decorating – and he was aware that there was a plenty of work (and potential for earning 'a decent amount of money') available in the trade. He started an apprenticeship at a local college whilst working with his uncle and continued to work for to him whilst undertaking his C&G qualifications.

David's uncle was unfortunately unable to employ him full time and as such, David found employment with another construction company, employed as their painter/decorator. He recalls working for around 4 firms prior to becoming self-employed. Each change of role was due to the firms 'going bust' or having no further work to employ him on a full time basis. Positively, however, each new job typically paid a little more than the previous (due to the length of experience that he had). David has not undertaken any further training since he completed his C&G qualification. Acknowledging that work experience is essential, he feels his skills have been best developed 'on the job'.

"... They went bust so I moved on and each time I got at least the same, in fact, always a little bit more than what I was on before... I suppose I had more experience under my belt so could charge more."

A key advancement in David's career was when he set up his own business and became self-employed. He has found his ability to 'progress' (i.e. to earn more money) to be very challenging, particularly given the economic downturn recently experienced. He found that his earning potential significantly increased once he was self-employed, however, despite hard work and rarely having a day off (and taking jobs up to an hour's commute away), this has not been sustained in recent years. Positively, however, David commented that 2013 had been a much better year compared to 2009 - 2012, where at one point he didn't have any work for 4 months (in 2009).

"The last four years or so have been difficult, this year is perking up though. I have always worked every hour I can, including weekends, bank holidays... I have worked very hard to get to where I am now... fortunately I am booked up for the rest of the year in the town where I live."

David hopes to continue painting and decorating for the next 4 - 5 years prior to retiring at 65 years old. Overall, he feels that there are 'plenty' of opportunities for development and with hard work, a grounding in a trade (further to undertaking an apprenticeship/qualification) and at least 5 - 10 years' work experience, any individual can have success in the industry.

John"*

General Building

John has been in the construction industry for over 30 years. He left school aged 16 with no qualifications and is now a self-employed general builder (working on new builds and extensions). After leaving school John attended a technical college where he undertook an apprenticeship in building. He then went on to do a 3 year City and Guilds craft course and an advanced craft course.

John's first job was working for his family's business as a brick layer; he stayed in this role for 22 years until he chose to start his own business working with his brother. This has meant he has always worked within 12-15 miles of his home and he has not needed to move for work.

John has not undertaken any further training since his early qualifications and believes that practical experience is generally of more value than other types of learning:

"It's about the more you do the more you learn and the better you become at it...I feel experience helped more than qualifications."

The only thing John thinks may have held his career back is not doing better in Maths and English at school:

"So I could send emails and do my invoice without having someone proof read them to ensure I have not made any mistakes."

John is currently not ambitious to expand his business as he feels comfortable financially and is happy working for himself, he would only reduce his overall workload or stop working in the sector if he had health problems:

"No as long I've got enough to survive and make a living I am happy. I am where I want to be pretty much as I never fancied working for someone else."



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