# Workforce Mobility and Skills in the Construction Sector in London and the South East

Research Report

prepared for

**ConstructionSkills, ECITB, SEEDA and DTI**

by

## IFF Research Ltd

Updated April 2005

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## 1 Background, objectives and methodology

1.1 This report updates findings of a survey conducted by IFF Research on behalf of ConstructionSkills, the Engineering Construction Training Board (ECITB) and South East England Development Agency (SEEDA). The update covers the rest of the UK, research that was funded by the Department of Trade and Industry (DTI). This report aims simply to contextualise the London and South East findings with those for the rest of the UK.

1.2 It should be noted that this report uses weighted data which was applied to the UK-wide figures to ensure each region was represented in their correct proportions. The initial London and South East report used unweighted data, and because of this some of the figures reported in this document are different from the earlier report.

1.3 The overall aim of both parts of the study (the initial work in London and South East region, hereafter 'LASER', and later in the rest of the UK) was to provide reliable data on the nature of the construction workforce in the UK. There is anecdotal evidence, for example, of high levels of workforce mobility in LASER with a large number of construction workers attracted to the area from elsewhere in the UK and further afield. The level and pattern of such mobility clearly has significant implications for skill requirements and for priorities for training (for example, the geographic distribution of training spend).

1.4 The key objectives of the research were to examine:

- The qualification and skill levels of the construction workforce
- The extent to which the workforce in each region is constituted of workers originating or living in other parts of the UK (or further afield), and general mobility and travel to work issues.
- The nature of the mobile workforce / 'imported' workforce in terms of their occupations and their qualifications levels
- Other issues such as switching between different occupations within the construction sector and the extent to which managers have received any training specifically to enhance their managerial skills.

## Research Methodology

1.5 The key elements of the research approach were as follows:

- *Sample:* a list of current construction projects over £1m in value was drawn from Glenigan, an Emap publication detailing current and forthcoming construction projects. (Among the many details listed for each project are the value, the size, the nature of the project, the planned start and completion dates and the organisations and contact details for the key contractors and organisations involved). The sample was drawn within each region / geographical area aiming to achieve a spread by value (it was drawn by £1m-£19.99m, £20m-£49.99m, £50m plus) and by phase of project (first 6 months, last 6 months and midway). We also aimed to include a significant number of civil engineering projects. For Engineering Construction projects, ECITB provided details of significant projects to supplement some appearing on the Glenigan list.
- *Quotas*: these were set on the target number of worker interviews for each / geographical area (in the South East these were also set by individual county). For the work conducted outside London and the South East, the quotas were set on the basis of the total target number of interviews (5,000) being divided between regions / geographical areas half according to the number of construction workers based in each region / geographical area (figures derived from the Labour Force Survey) and half equally.
- *Interviewing contractors / employers*: key contacts at each site were then called to collect some headline information about the sites (information such as the number of workers on site, the main occupations currently employed and the phase of the project) and then to ask for permission to interview at the named site (or an alternative if for some reason this was preferred).
- *Worker interviews:* once permission had been sought then dates for visits were arranged with site managers (this often involved contacting a different person within the organisation, or a different organisation). Site interviews were then conducted face-to-face by IFF interviewers. These normally took place in a canteen or equivalent. At some of the larger sites more than one interviewer attended, and in some cases interviewers returned on a second day. The interview took around 5 minutes to conduct. The questionnaire used is appended.
- *Other worker interviews*: three sites in LASER preferred to hand out questionnaires to workers on a self-completion basis, two because the sites were road building projects and hence the workers were spread out over a large distance, something not conducive to face-to-face interviewing. In total 72 self-completion responses were received.

1.6 The full UK results presented in this report combine fieldwork conducted in two different periods:

- The work in **London and the South East** took place from May to August 2003. This consisted of a total of 3,180 face-to-face interviews, with an additional 72 received via a self-completion approach, hence a total of **3,252 interviews**. These were obtained across 133 sites in London and the South East.
- The work in the **rest of the UK** took place from August to November 2004. This consisted of a total of 5,184 face-to-face interviews with site-based workers obtained across 212 sites.

1.7 The following table shows the split by region / geographical area both in terms of the number of sites covered and the number of interviews undertaken. At the analysis stage, weighting was applied to the data to ensure that each region / geographical area was represented in its correct proportions based on the relative size of the construction workforce (via LFS figures). Weighting was important both because London and the South East were relatively oversampled, and then in the rest of the UK the sampling strategy intentionally oversampled smaller regions / geographical areas. The resulting, weighted profile is shown in the right hand column of the following table. *One important note is that because the original LASER report used unweighted findings, there are some small changes in the figures reported here compared with the original LASER report.*

**Table 1.1: Interviewing by region / geographical area and by ECITB sites**

| | Number of sites | No. of interviews | Profile once weighted % |
|---|---|---|---|
| **Overall** | **345** | **8,436** | **100** |
| | | | |
| South East | 105 | 2,259 | 14 |
| London | 28 | 993 | 11 |
| North West | 26 | 686 | 11 |
| East | 24 | 651 | 10 |
| Scotland | 24 | 585 | 9 |
| South West | 21 | 509 | 9 |
| Yorkshire & the Humber | 27 | 604 | 8 |
| West Midlands | 20 | 517 | 8 |
| East Midlands | 25 | 452 | 7 |
| Wales | 21 | 399 | 5 |
| Northern Ireland | 13 | 403 | 4 |
| North East | 11 | 378 | 3 |
| | | | |
| ECITB | 17 | 642 | 8 |

1.8 In LASER we undertook an average of 25 interviews per site (the minimum limit we set when talking initially to the main contractors was 15, and if they had less than 15 currently and the numbers were not expected to increase within the next few weeks then the interview was closed). We interviewed at two sites where we conducted over 100 interviews, at the largest 139 were undertaken.

1.9 As a note, the whole methodology of interviewing construction workers on site was tested in a pilot study conducted by IFF Research for CITB and ECITB. This involved interviewing at three sites, with approximately 100 interviews being conducted (at one of these sites a self-completion approach was also tested). This was an important stage in devising and refining the questionnaire used in the current study.

### Non-English speakers

1.10 One issue the pilot study drew attention to was a relatively high incidence of non-English speakers working on one central London site covered, or where their English was not sufficient to undertake an interview. For the pilot study this fact was merely noted.

1.11 Clearly a high incidence of non-English speakers has important implications, not least for health and safety. Hence for the study, an attempt was made to include non-English speakers. When talking to the main contractor / employer contact about the site, we asked whether they had a significant number of non-English speakers working there, and if so what languages this covered. The plan was then to collate information on the range of languages spoken, and then translate the questionnaire into the main languages encountered and then have a native speaker conduct the interview or the respondent fill in the questionnaire themselves.

1.12 Practical issues made this task relatively problematic, at least collecting a significant number of interviews in a cost effective manner. In total twelve contractors indicated that they had a significant number of non-English speakers on site. When re-contacted after the site visit to get details of the languages and numbers concerned in order to consider a return visit: the workers in a number of cases were no longer on site and the 'significant proportion' often translated into a small absolute number of workers in specific languages. In only one instance was there a significant number of non-English speakers, this at a large central London site. Here it was estimated that there were approximately 20 Kosovans. The questionnaire was translated into Albanian, sent to the site manager who agreed to hand them out, collect them back and return them, but as of writing the report (five weeks after sending them, and with regular chasing) none had been returned.

1.13 In order to gain some understanding of health and safety issues the 12 contractors were re-contacted and asked about how health and safety issues were handled given they had people working at the site they described as non-English speakers. A brief note on the responses given by the ten employers is provided in the technical appendix.

1.14 The general point to note is that this survey covers only those able to speak English to a level that enabled our interviewers to conduct an interview. It is worth noting that our sample included a significant number whose first language was not English, especially people from a number of Eastern European countries, and later in the report we discuss the proportion originating outside the UK (one in ten of our sample).

## Details of the sites covered in the LASER research

1.15 Before coming on to examine the findings among the 3,252 workers interviewed, we briefly look at the profile of the sites covered in the research, this in terms of the number of workers on site, the type of work being undertaken and the phase of the project.

1.16 The following table shows the profile of the sites in our sample by the type of work being undertaken. This adds to more than the total number of sites at which interviews were conducted (133) since a number of sites were 'multi-activity' sites. We show for each type of project the number of workers described by the contractor as being on site, and then the number of interviews carried out.

**Sites covered by type of activity**

| | *Number of sites* | *Approximate current employment on site* | *Number of interviews* |
|---|---|---|---|
| *Total* | *133* | *10,926* | *3,252* |
| Housing | 54 | 3,115 | 1,242 |
| Offices | 13 | 875 | 334 |
| Other commercial | 58 | 4,609 | 1,411 |
| Civil engineering | 6 | 1,275 | 135 |
| Roads | 5 | 330 | 118 |
| Oil refinery / power plant | 2 | 920 | 91 |

1.17 The bulk of the sites were housing or commercial projects (the latter covering offices, factories, schools, hospitals and the alike). Interviews were conducted at half a dozen civil engineering projects, and in addition five road building or repair sites were covered.

1.18 Figures from the contractors interviewed at each site indicated that there were some 11,000 workers across the 133 sites. Hence in total we interviewed approximately 30% of those encountered. At some of the smaller sites we interviewed all or nearly all the workers present on the day or days we attended. However, at large sites (e.g. some of the civil engineering projects) we interviewed a much smaller proportion of the workforce. This was mainly a logistical issue. Even with a team of sometimes three interviewers working at a site on a specific day, interviewing was concentrated into quite short break times when canteens were 'flooded' with a very large number of workers. This is shown more clearly in the following table which shows the profile of the sites covered by size, and presents figures on the numbers working at these sites (rounded to the nearest 25) and the numbers interviewed. It can be seen that on sites with 50 or fewer staff, we interviewed approximately two thirds of the workforce.

**Sites covered by number of workers on the site**

| | *Number of sites* | *Approximate current employment on site* | *Number of interviews* |
|---|---|---|---|
| *Total* | *133* | *10,926* | *3,252* |
| 50 or less | 92 | 2,725 | 1,765 |
| 51-99 | 14 | 950 | 384 |
| 100-199 | 19 | 2,200 | 723 |
| 200+ | 8 | 5,050 | 380 |

# 2 Management Summary

2.1 This report presents the findings of a survey conducted by IFF Research on behalf of the ConstructionSkills, the Engineering Construction Training Board (ECITB), the South East England Development Agency (SEEDA) and the DTI. The survey consisted of interviews with 3,252 construction workers employed across 133 sites in London and the South East. Fieldwork took place from May to August 2003, and was conducted mainly on a face-to-face basis but includes a small number of self-completion responses (72). The survey covered large projects (in all but one case with an estimated value of £1m plus) and in this sense it did not seek to be representative of the overall construction workforce.

2.2 Comparisons are also made with survey data for the whole of the UK. Fieldwork for the rest of the UK was conducted over 12 months later, from August to November 2004, and consisted of a total of 5,184 interviews.

2.3 The project sought to establish reliable information on the construction workforce in London and the South East (hereafter 'LASER') as well as the rest of the UK in terms of qualification and skill levels and also geographic and occupational mobility. One key area of interest, information to assist planning in terms of the likely effects on the construction labour market of large new projects in LASER, has been tackled via a database system rather than directly through the report.

## The profile of the workforce

2.4 A very wide range of occupations was covered in the research, with only four making up more than 5% of our overall sample: labourer / general operatives (14%), carpenters / joiners (12%), bricklayers (9%) and electricians (9%).

2.5 Half of our sample of workers were employed directly by a company, 42% were self-employed and 6% worked for an agency. ECITB workers were much more likely than average to be employed directly (87%). The level of self-employment varied enormously by occupation being particularly high among carpenters / joiners, plasterers and dry liners and bricklayers among whom two thirds or more are self-employed.

2.6 Agencies appear to be used mainly for labouring / general operative positions: half the agency staff work in these roles, and 20% of labourers / general operatives are employed by an agency.

2.7 Two thirds (65%) of workers said they were employed on a permanent basis and approaching a third (31%) were working on a temporary basis (a small proportion, 4%, worked on some other basis or were unsure if it was permanent or temporary). Those working on a temporary basis said this was usually 'until the work dries up' or 'until the project finishes' rather than a specified period of time.

2.8 That the line between self-employment and direct employment can be somewhat blurred in the construction sector is evident in the fact that a significant minority (35%) of those saying they were self-employed also indicated that they were employed on a permanent basis. As many as one in five (18%) of the self-employed said they had been working for the current contractor or firm paying them for over five years.

### Mobility issues

2.9 The construction workforce in LASER draws in workers from a wide geographic area, especially in London. In the South East two thirds of those interviewed (66%) were originally from LASER, hence the construction sector in the region relies for a significant proportion (though a minority) of its workforce on attracting those originally from outside the area. Currently, this is roughly evenly split between those originally from other parts of England (18% of those interviewed in the South East) and those from elsewhere (15%). Those originally not from England were mainly from outside the UK (12%).

2.10 Of those interviewed at London sites, a minority (40%) were originally from LASER. In total across London sites, two thirds (64%) were originally from England, 7% from other parts of the UK and one in three (30%) from outside the UK. Compared to 2001 Census information on residents, the construction workforce in the capital includes a much higher proportion of those from Ireland, Scotland and Wales, who make up only 5% of the London residents. There was also evidence of significant numbers of workers in London from Eastern Europe, 3% of those interviewed being from Romania and 2% from Lithuania.

2.11 Again confirming the high degree of mobility among the construction workforce in LASER, less than half (45%) say all their construction career in the UK has involved working on sites in London and the South East. This compares with 19% who say half or less of their construction careers has been spent on sites in LASER.

2.12 Overall 13% workers interviewed were travelling to work from a temporary address. This was much higher among those working at ECITB sites (41%), those in London (19%) and those working for an employer operating nationally.

2.13 Construction workers are highly mobile in that they travel much greater distances to work than other workers in the region. The (mean) average distance travelled is 23 miles each way, and in the South East over a third (35%) travel more than 25 miles to work, a figure that compares with 5% among other workers in the South East.

2.14 Findings indicate that:

- 57% of those working on sites in London are drawn in from outside London (i.e. their permanent address is outside London) This is most often the South East (14% of London's workforce travels in from the South East) and the East of England (10%).
- Three in four (73%) of those working on sites in the South East travel in from outside the region, typically from London (9%) and the South West (6%).
- Inter-regional mobility is much higher in London than the South East. Not only does London draw in many workers residing outside the capital, but also a third (35%) of those residing in London were working on sites outside the region. This is the highest level of any area covered by the survey other than the East Midlands. The equivalent figure in the South East was 12%).

### Qualification levels

2.15 Overall just under half of the workforce (48%) claim to have a skills card or certificate. This was much higher among ECITB workers (67%) and also those on London sites (55% v 42% in the South East), and was also higher among the directly employed (55%) compared with the self-employed (40%). It also varied enormously by occupation, as can be seen in the following table.

| **Whether have a skill card / certificate by occupation** | |
|---|---|
| *High likelihood* | *Low likelihood* |
| Banksperson (90%) | Dry liners (21%) |
| Plant machine operators (81%) | Painter decorator (27%) |
| Scaffolders (78%) | Labourer / general operative (29%) |
| Welders (75%) | Plasterers (29%) |
| Managers / supervisors (66%) | Bricklayers (33%) |
| Groundworkers (62%) | Carpenters / joiners (39%) |

2.16 The proportion with a skills card / certificate was lower in LASER than the rest of the UK (61%), but direct comparisons are difficult to make because the fieldwork for the rest of the UK took place more than 12 months later than in LASER.

2.17 A similar proportion, 46%, have a qualification relevant to construction (other than just a skills card or certificate). This was very similar to the UK-wide figure (50%). On this measure differences between the South East and London (48% v 43%) and between the self-employed (43%) and the directly employed (50%) were less marked. There were though very wide differences by occupation:

| **Whether have construction qualifications (other than skill cards / certificates)** | |
|---|---|
| *High likelihood* | *Low likelihood* |
| Electricians (81%) | Labourers (13%) |
| Managers (75%) | Floorers (13%) |
| Plumbers (74%) | Steel erectors / riggers (28%) |
| Welders (72%) | Dry liners (30%) |
| Bricklayers (70%) | Glaziers (31%) |

2.18 A fifth of workers said they had managerial or supervisory duties at the site. Only a minority (38%) of these had ever had any training designed to improve their managerial or supervisory knowledge or skills. Even among those with designated manager and supervisor job titles, still only two thirds of managers (69%) and half of supervisors (49%) had received training to improve these skills (representing 44% of all supervisors and 62% of all managers interviewed). This does suggest a key area where the industry is providing insufficient training currently.

2.19 Combining results on qualifications and skill cards / certificates, approaching a third (31%) of the construction workforce has no construction-relevant qualifications. Overall, 43% have a level 1 or 2 qualification, 24% a level 3 and 3% a level 4 or 5. Results vary enormously by occupation. Among the following occupations most have no qualifications: floorers (56%), dry liners (56%) and general labourers (62).

2.20 Hence it is clear that to increase the qualification levels of the overall construction workforce to any significant degree requires policies targeting specific occupations (and companies employing these occupations) where uptake of qualifications is low.

2.21 That the upskilling of unqualified workers is unlikely to happen from a worker, demand-led angle is evident from the following:

- Although 12% of workers are currently working towards a qualification (close to the UK figure of 13%) many of these already have a qualification. Those working towards a qualification who do not already have one represent 7% of the overall workforce, clearly leaving a large number unqualified.
- Relatively few workers (12%) think they need more training to be able to do their current job. The figure was no higher (11%) among those who neither had qualifications or skill cards / certificates nor who were working towards any qualification, clearly the group who might be deemed most in need of further training or qualifications.
- Well over half (57%) those who had been in the industry less than a year felt they had all the skills needed for their current job.

2.22 Perhaps the most encouraging hope for further training from a worker-led perspective is the relatively high proportion who want to change the kind of job they are doing in the construction (15% of all workers) combined with the high level of awareness of the need to train and gain qualifications to achieve this goal. In all three quarters of those who want to change job recognise the need for training, this representing 12% of the total workforce.

# 3 Profile, work status and work histories of the construction workforce

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

## Demographic profile of the sample

3.2 The following table shows the demographic profile of our sample of construction workers, and compares this to the overall workforce in LASER (source: ONS from NOMIS 2003, via Labour Force Survey)

**Table 3.1: Demographic profile of the sample compared with labour force**

| | Survey | | ONS |
|---|---|---|---|
| | UK (8,436) % | LASER (3,252) % | Workforce in LASER % |
| *Age:* 16-17 | 2 | 1 | 13 |
| 18-24 | 19 | 17 | |
| 25-34 | 27 | 29 | 20 |
| 35-44 | 26 | 27 | 29 |
| 45-54 | 16 | 15 | 38 |
| 55+ | 9 | 9 | |
| | | | |
| *Ethnicity:* White | 97 | 93 | |
| Black | 2 | 4 | |
| Asian | 1 | 2 | |
| | * | | |
| *Gender:* Male | 99 | 99.4 | 56 |
| Female | 1 | 0.6 | 44 |

3.3 There is a broad spread of construction workers by age, with approximately one in five under 25, and hence representing the relatively new entrants to the industry, and one in four aged 45 plus. The age profile in LASER was very similar to that found among the site-based construction workforce across the UK as a whole.

3.4 Compared to the workforce as a whole across LASER, the construction sector has a much younger profile, as would be expected given the physical nature of the work. Age differed widely by occupation. Labourers / general operatives were much younger on average (over a third (35%) were under 25). Managers and particularly supervisors were the oldest occupations, with two thirds (66%) of managers and three quarters of supervisors (74%) aged 35 or over.

3.5 In LASER, six per cent described themselves as non-white, this highest in London where 10% were non-white (compared to 3% in the South East). Compared to 2001 census data on ethnicity of residents, ethnic minorities are under represented in the London construction workforce (29% of London residents are non-white) whereas in the South East the proportion closely matches that of residents (the census indicates that 5% of residents in the South East are non-white).

3.6 Predictably the workforce was very male dominated. In total only 18 female workers were interviewed, representing just 0.6% of the total sample. Female respondents were interviewed across 13 different sites (hence it was not the case that they were concentrated in only one or two sites). The spread by occupation was relatively broad: four electricians constituted the most in any one occupation. Two were managers. Despite the fact that it is a very small number interviewed, two things stand out: two thirds of these women have worked in the industry for over 5 years which suggests they are relatively happy with it as a career. In addition this group seems relatively mobile with a seven of the 18 of those interviewed living in temporary accommodation at the time of interview. Qualifications levels amongst these women are in line with those among men.

### Work status

3.7 Just over half (52%) of our sample of workers in LASER were employed directly by a company, just over two fifths (42%) were self-employed and the remainder (6%) worked for an agency. Self-employment among our sample of site-based workers in LASER was higher than found UK wide (35%), and direct employment lower (the UK figure was 58%). As we discuss in the following paragraphs, London is very close to the UK picture - the South East has slightly higher levels of self-employment (only the West Midlands had a higher level).

3.8 There is a notable effect by how long people have worked in the industry. After five years in the sector, very few work for an agency (4%), with the remainder equally divided between the self-employed and the directly employed. Among more recent recruits, working for an agency is quite common (18% of those in the industry less than a year do so), and relatively few work on what they regard as a self-employed basis (27%). This is summarised in the following table.

| **Table 3.2: Work status** | | | | | |
|---|---|---|---|---|---|
| | *UK* | *LASER* | | | |
| | | | *Years working in construction* | | |
| *Base:* | *All (8,436)* | *All (3,252)* | *< 1 year (260)* | *2- 5 (647)* | *> 5 (2,344)* |
| | % | % | % | % | % |
| Employed by a company | 58 | 52 | 56 | 58 | 50 |
| Self employed | 35 | 42 | 27 | 35 | 46 |
| Work for an agency | 7 | 6 | 17 | 7 | 4 |

3.9 Self-employment in LASER reaches its peak among those aged 25-34 among whom half (49%) were self-employed. Among older workers (e.g. those aged 55 plus) this falls to 34%.

3.10 There were also differences on this measure by other factors:

- Ø Those at ECITB sites were much more likely than the sample as a whole to be employed directly (87%, only 11% were self-employed).
- Ø Workers in the South East were slightly more likely than in London to be self-employed (46% compared with 42%)
- Ø A relatively large proportion of black workers were working for an agency (21%)
- Ø Those being paid by an employer operating nationally (this includes the self-employed and those working for an agency) are much more likely than average to be employed directly (62%).
- Ø Related to this, those living at a temporary address while working at the site were much more likely to be employed directly by a company (69%). This suggests that in many cases these workers are told by their employer the sites they are to work at.

3.11 There were also very wide differences in the likelihood of being self-employed by occupation, as summarised on the following table.

**Table 3.3: Level of self-employment by occupation**

| ***High*** | ***Low*** |
|---|---|
| Dry liners (87%) | Banksmen (15%) |
| Glaziers (83%) | Technical (16%) |
| Bricklayers (80%) | Plant machine operatives (16%) |
| Plasterers (71%) | Managers (18%) |
| Carpenters / joiners (64%) | Scaffolders (18%) |
| Roofers (59%) | |

3.12 Agency workers account for 6% of our total sample. Agencies appear to be used mainly for general labouring / operative positions (half the agency staff work in these positions, and 20% of labourers are employed by an agency).

3.13 Two thirds (65%) of our sample of workers said they were employed on a permanent basis and approaching a third (31%) were working on a temporary basis (a small proportion, 4%, worked on some other basis or were unsure if it was permanent or temporary). Those working on a temporary basis said this was usually 'until the work dries up' or 'until the project finishes' rather than a specified period of time.

3.14 The vast majority of those employed directly by a company were employed on a permanent basis (95%). That the line between self-employment and direct employment can be somewhat blurred in the construction sector is evident in the fact that 35% of those saying they were working on a self-employed basis also indicated that they were employed on a permanent basis. As many as one in five (18%) of the self-employed said they had been working for the current contractor or firm paying them for over five years.

## Occupational profile

3.15 Results showing how workers classified their current role or occupation are shown in the following table, which lists those occupations mentioned by 1% or more of the sample. Later in the report we often discuss difference by occupation, and for all the occupations listed on the following table there are reasonable large base numbers (lowest for plasterers, of whom we interviewed 45). The final column on the table shows comparative *national* data from the Labour Force Survey (Spring 2002), looking just at manual occupations.

**Table 3.4: Occupational profile**

| | *Survey data* | | *LFS data for manual occupations (Spring 2002)* |
|---|---|---|---|
| Base: all respondents | 3,252 | 3,252 | 1.43m |
| | Number | % | % |
| Labourer / operative | 460 | 14 | 8 |
| Carpenter / joiner | 387 | 12 | 20 |
| Bricklayer | 326 | 9 | 10 |
| Electrician | 294 | 9 | 12 |
| Groundworker | 185 | 5 | 3 |
| Plant / machine operative | 175 | 5 | 10 |
| Scaffolder | 171 | 5 | 1 |
| Supervisor | 152 | 5 | n/a |
| Plumber | 145 | 4 | 11 |
| Steel erector / rigger | 95 | 4 | 1 |
| Painter / decorator | 116 | 3 | 8 |
| Technical | 109 | 3 | n/a |
| Pipe fitter | 95 | 3 | < 0.5% |
| Roofers | 66 | 2 | 3 |
| Managers | 64 | 2 | n/a |
| Banksman | 40 | 2 | 1 |
| Dry liners | 46 | 1 | 1 |
| Plasterers | 45 | 1 | 2 |
| Glazier | 39 | 1 | 1 |
| Floorers | 34 | 1 | 1 |

3.16 The occupational profile of workers achieved for the survey can be compared to the overall national profile of manual construction workers (we have not shown the LFS comparisons for managers and supervisors since our site based survey will have under represented these groups). The table shows we achieved a higher proportion of labourers / general operatives, and also some more specialised occupations such as pipe fitters, steel erectors / riggers and scaffolders. On the other hand, we achieved a lower proportion in occupations such as painters and decorators and plumbers. There are two likely explanations:

- Our survey was confined to large sites with project value over £1 million. General labourers are particularly likely to be employed on such projects. On the other hand, many people employed as painters and decorators or plumbers work on a self-employed basis or for small companies and undertake mainly consumer work, not large relatively long term projects. Hence our survey is bound to under represent such groups.
- We targeted ECITB sites for the survey, and these sites have a much higher proportion of a number of specific occupations, namely:
  - Plant / machine operatives (14% of the ECITB workforce surveyed)
  - Scaffolders (9%)
  - 'Technical' positions (8%)

3.17 Later in this chapter we come on to look at how long people had worked in the construction industry. Predictably though, among those who had worked in the industry for less than one year (260 respondents, representing 8% of the sample) a very high proportion (38%) were working as labourers / operatives.

3.18 Black workers were also much more likely than average to be working as labourers / operatives: 38% compared to 13% among white respondents. This degree of difference is only partly explained by the fact that Black workers were more likely than average to be new to the industry (22% had worked in the sector for 2 years or less, compared with 13% of white workers).

### Work histories

3.19 One of the aims of the survey was to look at the paths by which construction gains new recruits, and also the extent to which workers are entering the industry for short periods, doing other work and then coming back to construction. Answers to both will assist the understanding of the nature of the industry's workforce. A similar issue was of interest at occupational level, the extent to which people progress from one occupation to another within the industry and the extent to which there appear to be clear patterns for this.

3.20 Hence in this section we look at:

- how many years workers have been in the industry
- whether they started their working life in other job areas
- whether since starting in construction they have worked in other jobs
- occupational switching within the workforce.

## Years working in construction

3.21 Broadly reflecting the age of the workforce described earlier, the length of time spent working in construction ranges from 8% of new entrants who have worked in the industry for less than a year, to a third (35%) who have worked in the industry for over 20 years. The following table summarises findings showing cumulative proportions (i.e. those who have worked in the industry for a year or less includes those who have worked in it for less than 6 months), both for LASER and UK-wide.

**Table 3.5: Years spent working in construction (cumulative)**

| *Base: all* | *LASER*<br><br>*3,252*<br>*%* | *UK*<br><br>*8,436*<br>*%* |
|---|---|---|
| Less than 6 months | 4 | 5 |
| A year or less | 8 | 8 |
| 2 years or less | 13 | 15 |
| 5 years or less | 28 | 25 |
| 10 years or less | 38 | 39 |
| 20 years or less | 64 | 65 |
| More than 20 years | 35 | 35 |

3.22 Labourers and general operatives were much more likely to be recent recruits to the industry, this indicating quite strongly that people often start out doing this work before moving on to more skilled areas within the industry. Among labourers / general operatives, a fifth (20%) were in their first year in construction, and 14% had been in the industry for more than 20 years (compared with the average figure across all occupations of 35%).

3.23 Workers at ECITB sites in LASER had worked in construction for longer than other workers, approaching half (47%) having worked in construction / engineering construction for over 20 years.

## Employment pre construction

3.24 Almost two in five (38%) of our sample of workers ended up in the construction industry after first starting in some other field. This was higher for labourers / general operatives (50%) and also some other occupations such as scaffolders and bankspeople. In other occupation areas it appears as if most chose from an early age that this is the type of work they want to do and enter this employment straight after leaving education. This includes carpenters / joiners, bricklayers, and electricians, among whom only around a quarter had started out working in some non-construction field.

3.25 Those who had worked in other fields before starting their construction careers were asked what their previous job had been. A fairly diverse range of jobs was mentioned. In a large number of cases this was doing jobs for which construction seems like a natural progression (or indeed which are construction jobs but in other sectors such as engineering or in the automotive trade): metal fitters, machinists, plant machine operators. Others coming to the industry had worked in completely non-related fields. The following jobs were all mentioned by at least 3% (these account for approximately half of all answers given).

**Table 3.6: Previous job prior to starting in Construction (main mentions)**

| *Base: all those whose first job not in construction (1,232)* | % |
|---|---|
| Metal machining / fitting | 7 |
| Food preparation (butchers, chefs) | 6 |
| Sales assistants / retail cashiers | 5 |
| Plant machine operatives | 5 |
| Elementary Plant machine operatives / assistants | 5 |
| Agricultural workers | 5 |
| Transport drivers / operatives | 4 |
| Hospital / hotel / kitchen porters / bar staff | 4 |
| Dockers / slingers / goods handlers | 3 |
| Armed forces / police / fire / prison service | 3 |
| Metal forming / welding | 3 |

3.26 Since starting their first job in construction or engineering construction, the vast majority had only ever worked in this sector: 79% reported having worked in construction continuously and a further 7% had only worked in this sector though had had spells out of work. Overall one in eleven (9%) had dipped in and out of the construction sector since their first construction / engineering construction job. This was slightly higher (13%) among general labourers / general operatives.

3.27 The basic pattern among this group was their taking jobs unrelated to construction (i.e. it is not usually the case of them transferring construction skills to other sectors). A fairly wide range of jobs was mentioned with the most common being: transport driver / operative (13%), retail (6%) and agricultural work (4%). Examples of more construction-related positions included metal workers outside the construction industry (4%) and elementary plant operatives (4%).

## Occupational switching and progression

3.28 An area of particular interest in the research is the extent to which specific construction occupations are 'recruited' from other construction occupations. Findings may suggest short term ways in which shortages of supply in particular occupations could be met. And in itself it is important to see typical career progression paths, for example the route from unskilled general labouring to more skilled positions.

3.29 On this issue workers were asked if they had always worked in their current role / occupation and if not what their previous occupation had been (a fair number of respondents listed all their main previous construction occupations rather than their last one, but these responses have been kept).

3.30 The majority (65%) indicated that they had always worked in the same occupational area as their current job. Not surprisingly, younger workers and those relatively new to the industry were much less likely to have changed occupation. Whereas overall a third (34%) had ever switched, among those in their first two years in construction the figure was only 18% and among under 25s it was 23%. Interestingly, the proportion who had ever changed occupation within construction did not increase systematically by age band among the over 25s: the figure among those aged 25-34 was almost identical to that of those aged 55 plus (34% and 35% respectively).

3.31 There were wide variations in the proportion who had changed construction roles by their current occupation. The following table shows this, with the left hand column containing occupations more likely than average to have come to their current position via other roles (not surprisingly this includes managers and supervisors) and the right hand column showing those most likely to have stayed in the one role throughout their careers. This includes specialist roles such as electricians and plumbers. It also includes general operatives who often have only worked in the industry for a relatively short time. It should be noted that the figures in the left hand and right hand columns are different, the left showing the percentage who have had other roles, the right the proportion that have not.

| **Table 3.7: Whether had other construction roles or not by occupation** | |
|---|---|
| ***More** likely to have had other roles (average had other roles = 34%)* | ***Less** likely to have had other roles (average **not** had other roles = 65%)* |
| Bankspeople (67%) | Electricians (87%) |
| Supervisors (65%) | Plumbers (78%) |
| Glaziers (63%) | Roofers (75%) |
| Managers (57%) | Labourers / general operatives (74%) |
| Plant / machine operators (56%) | Pipe fitters (73%) |
| Technical positions (54%) | Carpenters / joiners (73%) |

3.32 The main interest is the pattern of switching behaviour. Between occupations base sizes are relatively low, but for five occupational groups we interviewed a minimum of approximately 100 who had switched from other occupations. These are shown in the following table where current occupation appears as columns, this crossed against previous occupations. For previous occupations we list those mentioned by over 5% of these respondents (i.e. switchers). It should be noted that some respondents gave the same occupation for their previous position as their current one. This is explained by the fact that our categorisations of occupations are fairly broad and cover more than one potential role. Figures add to more than 100% since many answered with a range of previous occupations rather than their last one. Figures presented are unweighted.

**Table 3.8: Previous occupation by current occupation**

| | | Current occupation | | | | |
|---|---|---|---|---|---|---|
| *Previous occupation...* | **All switching construction occupations** | Carpenter / joiner (106) | Bricklayer (115) | Plant machine operator (121) | Labourer (121) | Supervisor (98) |
| | **%** | % | % | % | % | % |
| Labourer | **32** | 36 | 43 | 56 | 12 | 21 |
| Groundworker | **16** | 20 | 20 | 32 | 25 | 20 |
| Carpenter/joiner | **12** | 11 | 8 | 7 | 10 | 15 |
| Banksman | **8** | 7 | 3 | 21 | 14 | 11 |
| Plant machine op. | **8** | 6 | 3 | 10 | 15 | 13 |
| Bricklayer | **8** | 9 | 6 | 9 | 12 | 12 |
| Painter / dec. | **7** | 9 | 3 | 4 | 10 | 6 |
| Roofer | **6** | 14 | 10 | 4 | 6 | 7 |
| Plasterer | **6** | 7 | 8 | 9 | 9 | 6 |

3.33 Overall it can be seen that the most likely occupation from which workers had switched are unskilled / low skilled positions such as labourer / general operatives (32%) and groundworkers (16%). This is a strong indication that many workers do follow the pattern of starting out in the industry in unskilled positions before soon progressing to more skilled work.

3.34 Within occupation some of the patterns are highlighted on the table, shading showing where responses are noticeably higher than average. It can be seen that:

- Supervisors come from a wide range of occupations indicating that they move 'upwards' from whatever occupation they are working in
- Carpenters / joiners follow the general pattern, though it can be seen that a fair number had been roofers (14% of carpenter / joiner switchers)
- Bricklayers were particularly likely to have been labourers / general operatives (43%)
- Plant and machine operators who had switched from other occupations were very likely to have been labourers / general operatives (56%), but also groundworkers (32%) and banksmen (21%)
- Those currently working as labourers came from a range of occupations, the highest individual one being groundworker. Some had worked in skilled positions previously, suggesting that they resort to labouring / general operative positions when there is no work available in the more skilled areas.

3.35 The previous table illustrated findings among those occupations where we encountered a relatively large number of respondents (around a hundred or more) who had switched from some other role into that occupation. The following table shows the findings among some occupations where somewhat fewer had switched into that occupation (the number who had switched into that occupation is shown in the left hand column in brackets), hence results need to be treated with some caution. We concentrate relatively technical occupations where we had at least 25 switching into that occupation, and list the previous occupations listed by 10% or more of those that had switched into their current role. Results presented are unweighted.

| **Table 3.9: Other occupational switching patterns** | |
|---|---|
| *Current occupation* | *Main previous other occupations* |
| Technicians / technical positions (58 respondents) | Labourer / operative (24%), superviser (17%), plant machine operator (14%), painter / decorator (12%), groundworker (10%). |
| Plumbers (27) | Labourer / operative (26%), technicians / technical (19%), pipe fitter (15%), carpenter / joiner (11%). |
| Steel erectors / riggers (41) | Labourers / operatives (15%), then painter / decorators, bricklayers, banksmen, carpenter / joiner all 10%-12% |
| Electricians (35) | Labourer / operatives (34%), otherwise no previous specific occupation was mentioned by more than 10% |
| Dry liners / plasterers (32) | Labourer / operatives (31%), carpenter / joiner (22%) |
| Pipe fitters (25) | Labourer / operative (28%), groundworker (24%), plumber (24%), steel erectors / riggers (12%) |

3.36 Further information on the degree of occupational switching, how this varies by current occupation and the typical routes of progression, is provided in the technical appendix (appendix E). While some caution is needed due to low base sizes within some specific occupations, there is some evidence that within many the more specialist occupations a high proportion have come to these occupations through other construction roles. Examples include cladders, ceiling fixers and those in broadly-defined 'technical positions', where over half started in other occupations. These contrast with electricians and plumbers who appear much less likely to have switched from other occupations.

# 4 Qualifications and skills

4.1 A key objective of the survey was to measure the qualification levels of the construction workforce and to see how this varied by different groups, for example by occupation and among 'imported' workers. To this end workers were asked:

- If they held or were working towards any formal qualifications relevant to the construction industry, and if so what they held or were working towards.
- Those with managerial or supervisory duties were specifically asked about whether they had received any training specifically designed to improve their managerial or supervisory skills or knowledge, and if so what this was.
- Whether any construction skill certificate or card was held and if which were held and to what level.

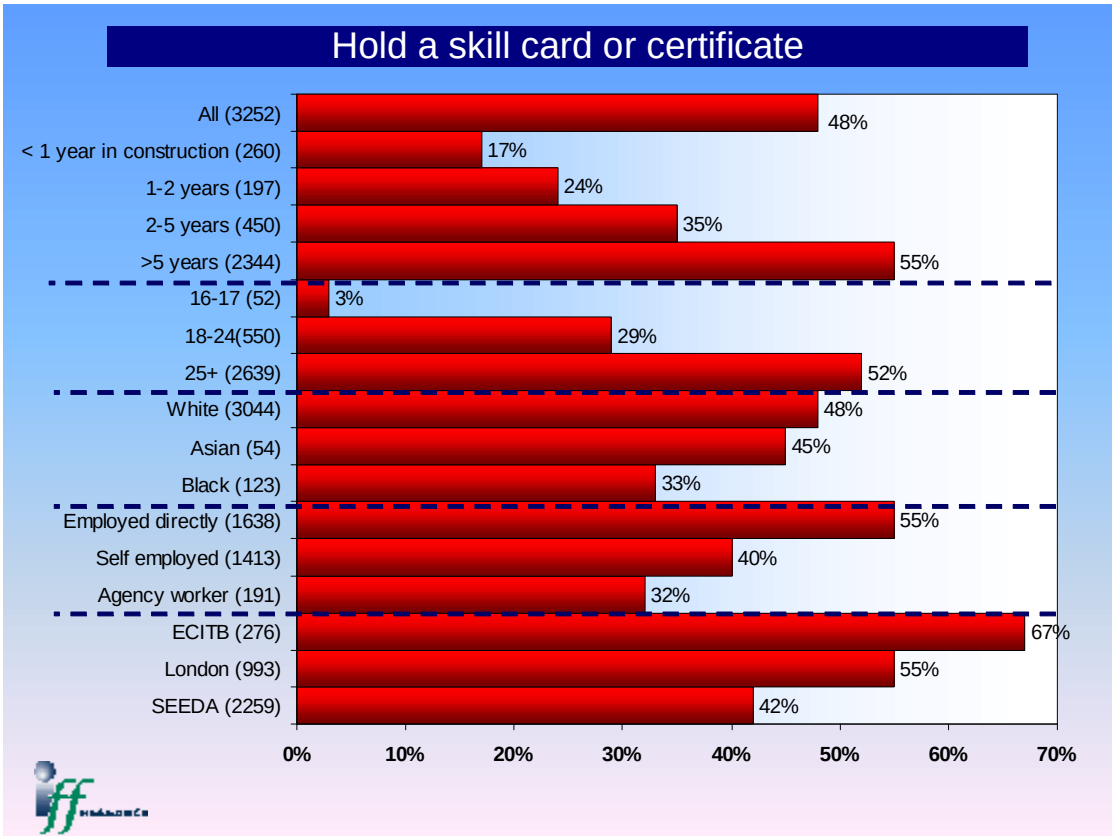
4.2 We report on each of these, and then summarise the findings in terms of their construction-specific qualification level (from level 5 down to those having no qualifications at all). Readers wishing to look at figures on the qualification level of the workforce without looking at the figures on how this picture is built up from qualifications held, skill card / certificates and management qualifications should skip to section 4.28.

4.3 We also look at workers' own assessment of their skills and how many felt they needed more training to do their current job.

## Construction skill cards or certificates

4.4 There is a general move in the industry towards the need for workers to have construction skill cards and certificates, indeed on some large major sites having such cards is a requirement of employment. The issue has been very high profile within the industry because of the employment implications for those without such cards.

4.5 Overall just under half (48%) of those interviewed said they held a skill certificate or card of some description (it was emphasised that we were not including CIS tax cards which at the pilot some had referred to when asked what the card actually was). This was significantly lower than the 61% found in the rest of UK, though the fieldwork in the rest of the UK took place 12 months later, and hence the two figures are not strictly comparable. This LASER figure varied widely by a number of factors including age, years worked in the industry, ethnicity, whether directly employed or not, and also occupation. The following chart shows results for all these areas other than occupation.




4.6 Predictably under 25s, and relatively new entrants to the industry, are very much less likely than average to have a skills card or certificate. Perhaps more surprising is that black workers are significantly less likely than white or Asian workers to have a skills card or certificate. This is partly but not completely explained by the fact that the black workers interviewed had worked in construction for less time than average (22% for 2 years or less compared with 13% among white workers). Interestingly, despite this relatively recency, black workers were less likely than average to be under 25.

4.7 Some of the most noticeable differences by occupation are shown in the following table which lists occupations with the highest and the lowest penetration of skill card / certificate ownership.

**Table 4.1: Whether have a skill card / certificate by occupation**

| *High likelihood* | *Low likelihood* |
|---|---|
| Banksperson (90%) | Dry liners (21%) |
| Plant machine operators (81%) | Painter decorator (27%) |
| Scaffolders (78%) | Labourer / general operative (29%) |
| Welders (75%) | Plasterers (29%) |
| Managers / supervisors (66%) | Bricklayers (33%) |
| Groundworkers (62%) | Carpenters / joiners (39%) |

4.8 The general finding is that while a large proportion of the workforce now have a skills card or certificate, this is still a minority of the workforce, and for take up to be increased would require a wider range of occupations to be attracted and for cards and certificates to be promoted among new entrants to the industry and the self-employed.

4.9 The following table illustrates the distribution of the different types of skill cards and certificates held, this based on all respondents (i.e. not just those saying they have such a card / certificate). The main responses are given - other types of skill cards mentioned by typically less than 20 respondents included CIR, CORGI/ Gas and IPAF).

**Table 4.2: Whether have a skill card / certificate by occupation**

| *Base: all* | All LASER (3,252) % | ECITB site workers (276) % |
|---|---|---|
| CSCS (Construction Skill Certification Scheme) | 29 | 38 |
| CITB Ticket[1] | 21 | 35 |
| CTA (Certificate of Training Achievement) | 7 | 16 |
| ECI Skills database card | 3 | 4 |
| JIB | 1 | 1 |
| CPCS (Construction Plant Competence Scheme) | 1 | * |

4.10 Over a quarter (29%) of those interviewed had a CSCS card, this particularly high among managers (57%), welders (57%), scaffolders (53%) banksmen (47%) and steel erectors / riggers (45%). Comparisons with the rest of the UK cannot really be made because the fieldwork outside LASER took place more than 12 months later (in the rest of the UK in 2004, three in five (61%) had a skills card or certificate).

[1] The term 'CITB ticket' is not an official qualification but is common parlance for a range of qualifications including the Certificate in Training Achievement for plant operators and the Scaffolder's Record Card Scheme.

4.11 The most common CSCS cards held among LASER workers are blue (skilled worker) and Gold (supervisor), though a large proportion don't know what colour their card is.

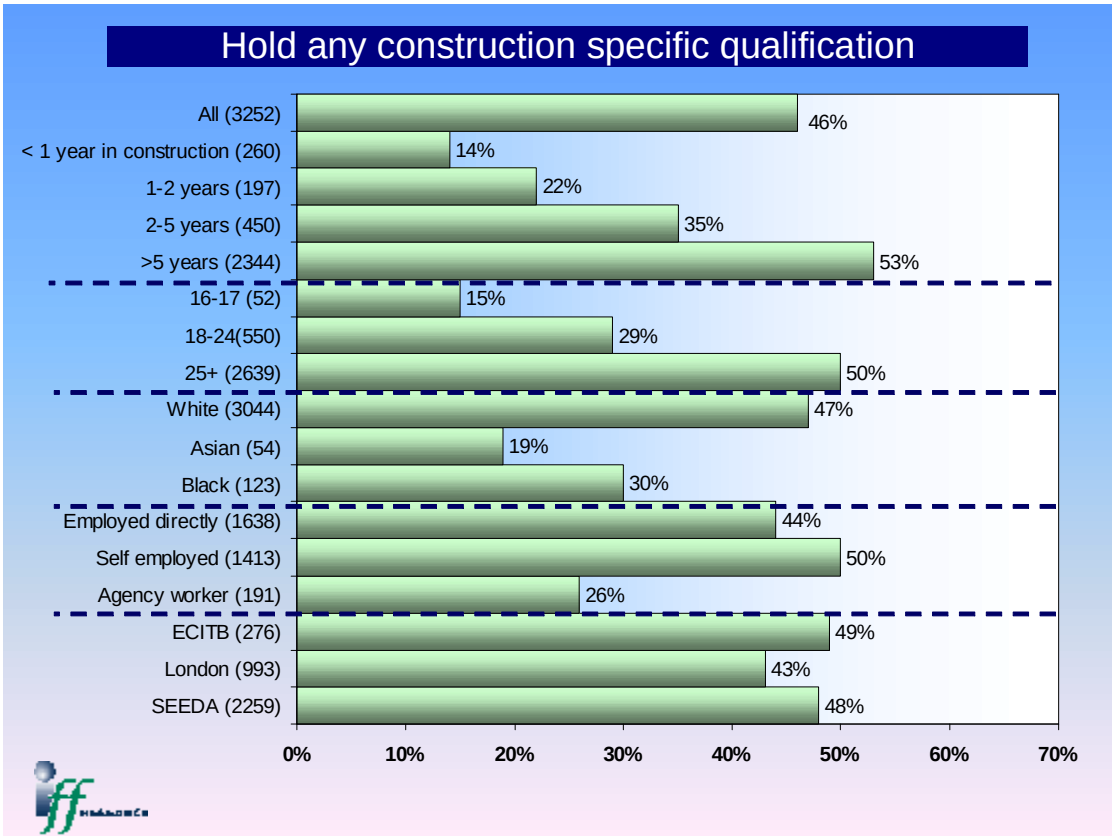
| **Table 4.3: Type of CSCS card** | |
|---|---|
| *Base: all holding a CSCS card* | 877<br>% |
| Red (trainee) | 2 |
| Blue (skilled worker) | 28 |
| Green (skilled level 2) | 15 |
| Gold (supervisor / NVQ 3) | 23 |
| Platinum (manager / NVQ 4) | 3 |
| Black | 1 |
| Other | 2 |
| Don't know | 26 |

4.12 One in five (21%) of the workforce have one of a range of qualifications commonly known as a 'CITB ticket' (see footnote on the pervious page). This is much higher among banksmen (67%), plant / machine operators (65%), scaffolders (56%) and steel erectors / riggers (50%).

### Construction qualifications held

4.13 Having described any skill card or certificate they held, workers were asked what other formal qualifications relevant to construction they held (excluding first aid certificates). Just under half (46%) said they had such a qualification. As with whether skill cards or certificates were held, there were predictable differences by age and length of time worked in the industry. While we pointed out that workers at ECITB sites were more likely to have cards or certificates the difference was much less marked for construction qualifications. Similarly, the difference between those directly employed and the self-employed for card and certificates was not found for other qualifications, indeed the self-employed were slightly more likely to have construction qualifications.

4.14 Results, other than by occupation, are summarised on the following chart. The results are a little behind the overall UK figures: UK-wide we found that half of all site-based workers had some construction-specific qualification (beyond skill cards / certificates).




4.15 Results vary little by age after 25: the proportion of those with a qualification aged 25-34 (48%) is only slightly lower than among those aged 35-44 (51%), and again this is only slightly lower than among those aged 45-54 (53%). The implication is that the pattern in the industry to date has been that if somebody doesn't obtain a qualification by the time they are 25 they are unlikely to do so later in their career.

4.16 As with skills cards and certificates, there is very wide variation by occupation. This is summarised below, showing occupations with high proportions with a qualification, and then those with low relative proportions.

**Table 4.4: Whether have construction qualifications (other than skill cards / certificates)**

| *High likelihood* | *Low likelihood* |
|---|---|
| Electricians (81%) | Labourers (13%) |
| Managers (75%) | Floorers (13%) |
| Plumbers (74%) | Steel erectors / riggers (28%) |
| Welders (72%) | Dry liners (30%) |
| Bricklayers (70%) | Glaziers (31%) |

4.17 We come on to discuss the overall qualification level of the workforce later in the chapter. Here, as an indication of the type of qualifications held, we show what qualifications are held (but not the level), the base here being those with qualifications. UK comparisons are shown in brackets.

| **Table 4.5: Main type of qualification held** | |
|---|---|
| *Base: those with a qualification* | *1,531* |
| City and Guilds | 48% (46%) |
| NVQ | 20% (25%) |
| CTA | 6% (7%) |
| Apprenticeship | 6% (6%) |
| Degree | 2% (3%) |
| HNC/HND/BTEC higher | 2% (2%) |

4.18 Although there were some differences by occupation (electricians for example were particularly likely to have a City and Guilds qualification – 71% of those with any qualification), a key difference was by age and length of time worked in the industry. Both suggest a switch towards NVQs away from City and Guild qualifications. For example, among those in the industry for two years or less with a qualification (86 respondents) 45% had an NVQ and 31% a City and Guilds qualification. The comparative figure among those in the industry for five or more years with a qualification (a base of 1,267 respondents) is only 16% with an NVQ and 54% with a City and Guilds qualification.

### Those working towards a qualification

4.19 One in eight of the workforce (12%) are working towards a qualification. This is the same level as found across the UK (13%). Predictably this is much higher among new entrants and younger workers, as follows:

- Ø 16-17 year olds 45%
- Ø 18-24 year olds 24%
- Ø 25 plus 9%

- Ø Worked in construction for less than a year 21%
- Ø Worked in construction 1-2 years 26%
- Ø Worked in the industry 2-5 years 22%
- Ø Worked in the industry > 5 years 8%

4.20 Confirming the point discussed in regard to qualifications held as to the shift from City and Guilds to NVQs, over half (52%) of those working towards a qualification were working towards an NVQ compared with 14% working towards a City and Guilds qualification.

4.21 One point worth noting is that we only encountered nine respondents working towards a Modern Apprenticeship, this representing less than half a per cent of the overall workforce and only 2% of those working towards some qualification. This may under represent the real figure in that respondents were asked about the qualification they were working towards, and those on a Modern Apprenticeship may have answered in terms of their NVQ. (As a note 13 did also say they were working towards an unspecified apprenticeship.)

4.22 An important point to note is that a large proportion of those working towards a construction qualification already have one (this confirms findings from other research, including the National Adult Learning Survey, that those with no qualifications are less likely to engage in learning). **In fact, those studying towards a qualification who do not already have one (here we exclude skill cards or certificates) represent 7% of the total workforce**.

### Managerial qualifications

4.23 An area of interest for the research was the extent to which those with managerial or supervisory duties have had training specifically designed to improve their managerial and supervisory skills.

4.24 A fifth of the workforce (21%) said they had supervisory or managerial duties at the site. Nearly all managers and supervisors indicated that they had these duties (92%). The figure was also higher in some specific trades including 'technical' positions (38%), steel erectors/riggers (28%) and pipe fitters (26%). Time worked in the sector was a key discriminator: a quarter (26%) of those who have worked in the industry for over five years had managerial or supervisory duties at the site, compared with only 7% among those more recent to the sector.

4.25 In total a minority (38%) of those with managerial and supervisory duties had ever received any training designed to improve skills in this area. Even among those with designated manager and supervisor job titles, still only two thirds of managers (69%) and half of supervisors (49%) had received training to improve these skills (representing 44% of all supervisors and 62% of all managers interviewed). In one or two specific occupations it was noticeably lower than average. Among the 32 plumbers with managerial or supervisory duties at their current site, only three (8%) had received any supervisory/management-specific training. Statistically, this makes them significantly less likely to have received such training than, among others, carpenters / joiners, painters / decorators, scaffolders or groundworkers.

4.26 One key discriminator on this measure is the whether the respondent works for large employer with nationwide operations. Among those with managerial or supervisory duties working for a national employer, 45% had received training specifically designed to improve such skills, a figure which compares with 28% among other workers (e.g. the self-employed or those working for an employer that works only locally or regionally).

4.27 Where training had been received it was typically in-house training rather than one of the accredited, industry-recognised programmes. This is shown on the following table, based on all those with supervisory or management duties (the final column also shows results specifically for those at ECITB sites).

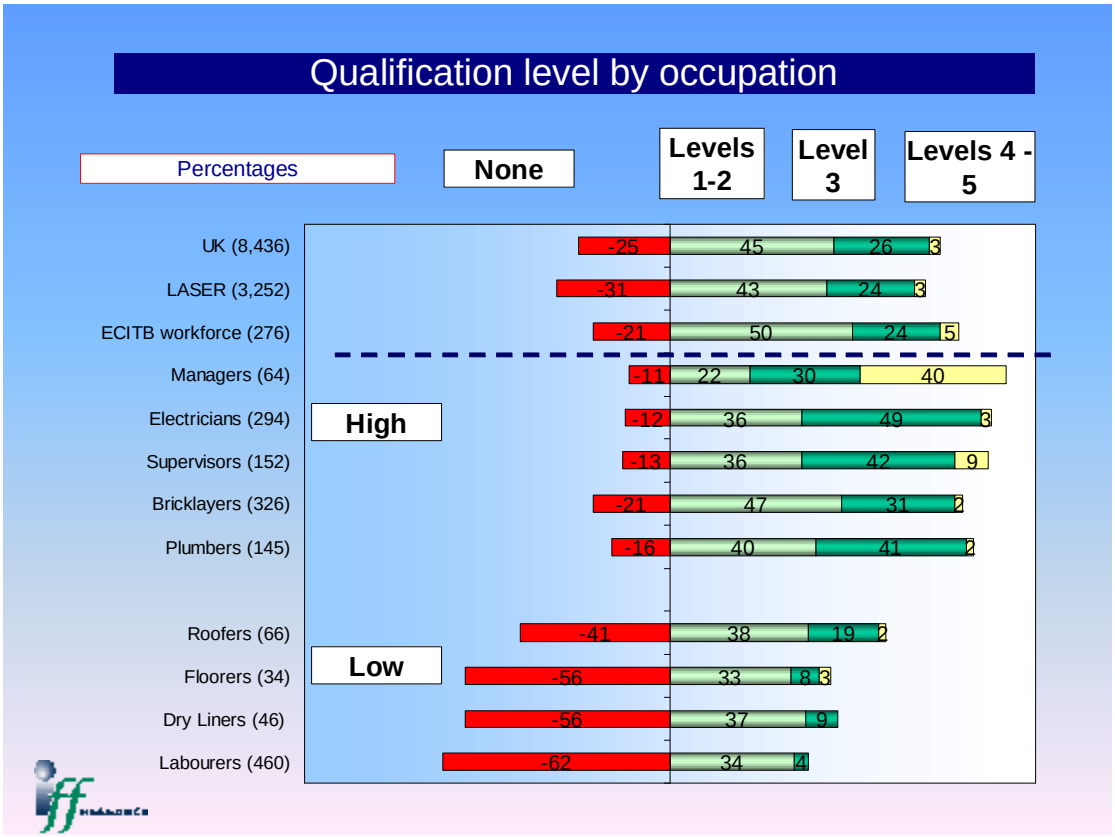
**Table 4.6: Type of training received to improve management or supervisory skills**

| *Base: all with management and supervisory skills* | All<br>682<br>% | ECITB<br>50<br>% |
|---|---|---|
| **None** | **61** | **51** |
| In-house training | 24 | 29 |
| SMSTS (Site Manager Safety Training Scheme) | 4 | 7 |
| Chargehand and team leader training | 3 | 8 |
| CIOB Site Supervisor (First Line Supervisor - FLS) | 3 | 7 |
| Supervisory Management Training and Development (SMTD) | 3 | - |
| CIOB Site Management Education and Training Scheme (SMETS) | 2 | 7 |
| Project Management short courses | 2 | - |
| Institute of Supervision and Management Workshops | 1 | 1 |
| Civil engineering Site Managers Scheme | 1 | 3 |
| CITB qualifications | 1 | 3 |
| Other training | 7 | 8 |

## Qualification level of the construction workforce

4.28 In this section to date we have discussed the qualifications and skill cards/certificates possessed and the managerial / supervisory training that workers have received. From this highest qualification levels have been derived for each worker (the technical appendix lists the definitions of each). As a note this has been defined in relation to qualifications relevant to construction, hence if somebody felt they had no such qualifications but they did have GCSEs or O levels from school, these latter qualifications would not be included.

4.29 For simplification we have merged levels 1 and two, and then 4 and 5 (overall less than half a per cent had a level 5 and 3% a level 4). We show the findings overall and by workers at ECITB sites, and then we present results by occupation showing occupations with higher and lower than average qualification levels.




4.30 The main overall finding is that around a third of the workforce (31%) at these large sites in LASER have no qualification level. Occupation is a key driver of this. As can be seen, among floorers, dry liners and general labourers /operatives half or more have no qualification level at all.

4.31 Predictably among groups such as managers and supervisors qualification levels are much higher, indeed managers are the only group with significant proportions qualified to level 4 or 5 (40%). Even so still almost one in nine (11%) of managers have no qualification level in construction specific terms.

4.32 Other factors appear to play an important part in affecting qualification levels. Not surprisingly time spent in the industry affects results on this measure, and as would be expected, relatively few new entrants have any qualification level. However, even among those that have been in the industry for 2-5 years (450 respondents) approaching half (43%) have no qualification level, and among the vast majority who have been in the industry for over 5 years (2,344 respondents) still approaching a quarter (22%) have no qualification.

4.33 Other variations include:

- Ø Those working on London sites tended to be more qualified than those on SEEDA sites (in London 28% had no qualifications compared with 33% in SEEDA)
- Ø Agency workers (among whom there is a high proportion of labourers / general operatives) are much less likely to have any qualification level (50%); the difference between the self-employed and those directly employed was relatively slight.

4.34 Clearly the general conclusion though is that to significantly increase qualification levels in the sector will require 'pushing' the uptake of qualifications across a much wider range of occupations than currently have significant take up. That any significant increase would need to be driven rather than demand led is evidenced by the fact that the vast majority of workers feel they have all the skills they need, and relatively few feel they need more training, even those who have no qualifications. This is shown in the following table.

| Table 4.7: Self-assessment of skill level and training needs for their current job | | |
|---|---|---|
| Base: | All (3,252) | No qualifications, skill card / certificates) nor working towards any (899) |
| | % | % |
| All the skills needed for current job | 81 | 79 |
| Need more training or qualifications | 12 | 11 |
| Need more experience | 5 | 7 |
| Don't know | 2 | 3 |

4.35 As illustrated, among those with no qualifications (including skill cards or certificates) and those who are not working towards any, four in five (79%) say they have all the skills they need for their current job. While this may be the case in some of the unskilled positions, it is surprising that other than for a few specific occupations, the proportion thinking they needed more training for their current job varied relatively little by occupation. Indeed the only occupations where a significantly higher than average proportion thought they needed more training were: technical positions (23%), electricians (21%), roofers (21%), managers (20%) and plumbers (15%).

4.36 And while young workers and new entrants were more ready to admit of the need for more training, still a third (32%) of 16 and 17 year olds interviewed and well over half (57%) who had been in the industry less than a year felt they had all the skills needed for their current job.

4.37 The other means by which increased training may arise from a demand-led worker angle is those wishing to change occupation within the sector. Overall, one in six (15%) say they want to change the kind of work they do, and the vast majority of these (76%) say that to achieve this aim they will need further training and qualifications. This represents 12% of all those interviewed, clearly a not insignificant number of workers. Two provisos need to be made. Most importantly, wanting to change occupation and actually making this step are two different things, hence these figures over state the demand. The other note is that a majority (55%) of these workers identifying training needs in order to change role already have qualifications.

4.38 As to who it is that wants to change job and the type of training that will be needed, the desire for a change of role was particularly apparent among labourers / general operatives (37%), and also among banksmen (27% - though on a relatively low base of 40 respondents). The clear desire is to take up more skilled positions which offer better pay (the key motive) but also offer more interesting work. Among the 164 labourers interviewed wishing to change the kind of work they do, the key jobs of interest were:

- Bricklaying (24%)
- Carpentry (15%)
- Plumbing (12%)
- Plant machine operators (8%)
- Plasterer (7%).

4.39 More generally among those wishing to change role, the target 'job' of interest is most often a move up to managerial (15%) or supervisory positions (9%), with other popular areas being bricklaying (13% of those wishing to change), plumbing (10%) and carpentry (9%).

# 5 Mobility

5.1 A key area of interest for the survey is the degree to which the LASER construction sector workforce is 'imported' from other regions of the country (and indeed further afield). Anecdotal evidence suggests a high degree of such importing takes place, people being attracted by a mix of such factors as high wages and the availability of more regular work. If this is the case, then this clearly has significant implications for training provision and support for training on a regional basis. For example, it could be argued that if LASER imports a high proportion of its workers through necessity, there not being sufficient supply locally, then support for training and training provision needs to be concentrated on where workers originate more so than where they end up working. Related to this, if regions are losing their skilled workers to London and the South East, then these regions cannot count on all of the stock of workers trained in the region being available to work in their area.

5.2 Deciding exactly what counts as an imported worker in this sense is not straightforward and hence measuring the degree to which the workforce is imported is not straightforward. Potentially it includes those who live outside the area and travel in, those who live in temporary accommodation which is in the region but whose permanent address is outside, those who have moved to the area on a semi-permanent basis, as well as those who received their construction training elsewhere but have now moved to the region on a permanent basis. Hence for the survey a number of measures were asked covering these issues. These were:

- Where respondents were from 'originally'
- The proportion of the time that they have worked in construction in the UK which has been on sites LASER
- The miles they travel to get to the site each day (as well as the town and postcode of where they travel from)
- Whether they travel from their permanent address or a temporary address (and if temporary why they work in LASER).
- Also, whether when they finish this site they expect to get a job which allows them to commute on a daily basis from their permanent address, and if not if they expect this to be on a site in LASER.

5.3 We discuss these in turn. In the last section we also look at how long workers typically work at an individual site, hence giving some idea of the frequency of moving between sites.

## Where workers from originally

5.4 Workers were asked where they were from originally. As a measure of mobility clearly it is very broad, since people may have moved to a region on a permanent basis and done so many years ago. It is not in itself an indication of willingness to travel far to work. That said, there are some interesting differences between the regions as far as importing and exporting workers is concerned which are shown in the following table.

**Table 5.1: Where from originally / inter region movement**

| Where from originally… | Where currently working… | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | London | South East | East | NE | NW | Y&H | East Mids | West Mids | SW | Wales | Scot. | N. Ire |
| | % | % | % | % | % | % | % | % | % | % | % | % |
| London & South East | 40 | 66 | 16 | 2 | 1 | * | 4 | 3 | 10 | 2 | * | - |
| East | 7 | 3 | 55 | 1 | * | 1 | 1 | * | 1 | 1 | * | - |
| North East | 5 | 2 | 3 | 91 | 2 | 3 | 1 | 1 | 1 | 1 | 1 | * |
| North West | 5 | 2 | 4 | 1 | 75 | 3 | 2 | 4 | 3 | 3 | 1 | 1 |
| Yorkshire & Humberside | 1 | 2 | 2 | 2 | 9 | 81 | 8 | 2 | 1 | 2 | 1 | - |
| East Midlands | 3 | 3 | 5 | * | * | 5 | 65 | 5 | 1 | 1 | - | - |
| West Midlands | 2 | 2 | 2 | 1 | 3 | * | 8 | 76 | 3 | 3 | - | * |
| South West | 1 | 4 | * | 1 | * | 1 | 1 | * | 67 | 3 | * | * |
| Wales | 3 | 1 | 1 | - | 2 | * | 1 | 1 | 5 | 81 | 1 | - |
| Scotland | 4 | 2 | * | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 91 | 2 |
| Northern Ireland | - | * | 1 | 1 | 1 | * | * | * | 1 | - | 1 | 90 |
| Outside the UK | 30 | 12 | 11 | * | 5 | 5 | 7 | 7 | 5 | 2 | 4 | 7 |

5.5 Overall, just over half (54%) of the workforce on sites in LASER were originally from London and the South East. London, however, attracts many more from outside the SEEDA region than the South East, indeed a majority (60%) of workers on sites in London came from outside SEEDA. Many on sites in London were originally from outside the UK (30%), indeed one in ten workers were specifically from Eire. Mentions were also relatively high for Romania (3% of all London workers), Lithuania (2%) and India (2%), among others.

5.6 The difference between London and the South East is even more marked when looking specifically within these two regions rather than at the two combined. Only a quarter of workers on London sites (26%) were from London, whereas well over half those on sites in the South East were from this area (56%).

5.7 In the East, there is clearly a high cross over with the London workforce, with one in eight (12%) of its workers originally from London. Similarly 7% of workers on London sites were originally from the East of England.

5.8 It is interesting to compare these results with census figures for 2001. Results are summarised on the following table, where figures should be read across the page. As a note the census asks where people were born.

**Table 5.2: Where from: census v survey results**

| *Horizontal percentages* | From England | From the rest of the UK | From outside the UK |
|---|---|---|---|
| Census: London resident | 70% | 5% | 25% |
| Survey: London site workers | 63% | 7% | 30% |
| Census: South East residents | 88% | 4% | 8% |
| Survey: SE site workers | 85% | 3% | 12% |

5.9 Broadly the profile of the workforce reflects the country of origin of residents in the area, especially in the South East. In London the construction workforce consists of a much larger proportion originally from outside England than they make up of the resident population.

5.10 Across the survey (UK-wide) as a whole nine in ten (89%) said they had lived in the UK all their life. In London this falls to only just over two in three workers (69%). Four per cent of London workers had lived in the UK less than a year. In contrast in Scotland, the North East, Northern Ireland, Yorkshire and the Humber and Wales over 95% had been living in the UK all their life.

## Proportion of UK Construction careers spent in LASER

5.11 Workers were asked what proportion of the time they had worked in construction in the UK had been spent on sites in London and the South East[2]. Just less than half (45%) indicated that they had only ever worked on sites in LASER, confirmation that there is a high degree of mobility within the construction workforce (i.e. over half had spent time on sites outside LASER). Results are summarised on the following table, which shows results UK-wide, for all LASER workers and then London and the South East separately.

**Table 5.3: Proportion of construction careers spent in that region (for LASER: outside London and the South East combined)**

| | UK-wide | LASER | London | South East |
|---|---|---|---|---|
| *Base: all* | 8,436 % | 3,252 % | 993 % | 2,259 % |
| All of it | 41 | 45 | 37 | 51 |
| Most of it | 37 | 36 | 41 | 32 |
| Around half | 10 | 9 | 10 | 8 |
| Small proportion | 11 | 10 | 12 | 9 |

5.12 Around one in five workers (19%) interviewed indicated that they had spent half or less of their construction careers working on sites in London and the South East. This is actually close to the UK-wide figure (21%). Those working at London sites were more likely to have spent more of their career outside LASER.

5.13 There are also differences by county, with those bordering other regions generally more likely to have spent time working outside LASER. This was particularly so for workers currently working in Buckinghamshire, among whom a third (35%) had spent half or less of their careers in LASER.

5.14 Differences also exist by occupation. Predictably, managers and supervisors were more likely to have spent time outside LASER (as also were those in technical positions). Groups more likely to have spent all or most of their time in London and the South East included bricklayers, labourers / operatives, plasterers and dry liners. (It is worth noting here these findings reflect the general pattern in the wider economy that those in higher level occupations tend to be the most mobile workers).

[2] For the purposes of this survey, London and the South East was defined to respondents as including London, Berkshire, Bucks, Hampshire, Oxfordshire, Kent, Sussex, Surrey but NOT Hertfordshire or Essex. These two exclusions were to make the South East as defined for this survey match the counties covered by SEEDA.

### Living in temporary accommodation

5.15 While clearly not everyone based in temporary accommodation will necessarily be 'imported' to LASER from outside the region (some may have a permanent address within the region – we examine this later), this group is a proxy for the highly mobile workforce.

5.16 Overall 13% of those interviewed in LASER were based at a temporary address to get to work. This was higher among the following:

- Those working on London sites (19%, this compared to only 2% working in Surrey). It is not surprising that people are attracted to the capital simply because of the amount of work available, including some large, long term projects.
- Those working for a national employer (22%), presumably reflecting that employees are often sent to where they are needed.
- More generally, those directly employed by a company (17% compared with 8% among the self-employed). It is no surprise that the self-employed are more likely to work within commuting distance of their home.
- Workers at ECITB sites (41%)
- Steel erectors / riggers (52%), glaziers (47%) and welders (35%) – low base sizes with the latter two groups mean some caution is needed.

### Region of workplace, current residence and permanent residence[3]

5.17 Respondents were all asked about where they were living to get to their current place of work, whether this was their permanent address and, if not, where their permanent address was. Table 5.4 presents results showing:

- the percentage of workers whose *permanent* residence is in the same region as their current work (the column shown in bold on the table 5.4); and
- the percentage of workers currently living in the same region while working.

In each instance, the percentages resident in neighbouring regions are also presented.

[3] Analysis in this section has been taken from analysis carried out by Anne Green and David Owen of the University of Warwick.

**Table 5.4: Region of establishment, work residence and permanent residence**

| | Region of **permanent** residence | | | | Region of **current** residence | | |
|---|---|---|---|---|---|---|---|
| Region of site… | Valid cases | % from different region | % from same region | % from neighbouring regions | % from different region | % from same region | % from neighbouring regions |
| South West | *470* | 13 | **87** | 8 | 8 | 92 | 5 |
| East | *593* | 32 | **68** | 27 | 30 | 70 | 28 |
| North East | *352* | 5 | **95** | 4 | 4 | 96 | 3 |
| North West | *636* | 19 | **81** | 17 | 13 | 87 | 12 |
| Yorkshire & H. | *570* | 12 | **88** | 10 | 8 | 92 | 8 |
| West Midlands | *436* | 11 | **89** | 10 | 10 | 90 | 9 |
| East Midlands | *364* | 25 | **75** | 18 | 20 | 80 | 16 |
| Northern Ireland | *381* | 0.5 | **99.5** | - | 0.5 | 99.5 | - |
| Wales | *355* | 10 | **90** | 5 | 8 | 92 | 4 |
| Scotland | *544* | 2 | **98** | 1 | 1 | 99 | 1 |
| London | *944* | 43 | **57** | 25 | 29 | 71 | 26 |
| South East | *2,151* | 27 | **73** | 23 | 21 | 79 | 21 |

5.18 Reflecting high levels living in temporary accommodation as already discussed, London has the lowest proportion of its workers who have their permanent address within the region (57%). In the South East around three in four workers live within the region. Clearly both regions import a relatively substantial proportion of their construction labour force from outside the regions.

5.19 The majority of workers from outside each region are from neighbouring regions.[4] Such journeys may be over short distances only, and reflect more general commuting patterns across regional boundaries (especially in London and the 'Greater South East').

5.20 While sites in London attract workers mainly from the neighbouring regions of the South East and East of England, around 4 per cent have permanent residences in each of the North West and North East regions, and each other region contributes 1.5-2.0% of London's construction workforce (see table A1 in the appendix).

5.21 Table 5.5 shows the percentage of construction workers working outside the region where they have their permanent residence (the first column of data) and then the percentage working outside the region where they are currently resident. Hence for example, a third (35%) of those with a permanent address in London work outside the region. By contrast, among those with a permanent address in the South East, only one in eight (12%) work outside the region, the lowest figure of all the English regions.

[4] For example, workers at sites in the East of England are drawn mainly from London, the East Midlands and the South East; while workers at sites in the East Midlands are drawn mainly from permanent residences in the West Midlands and Yorkshire & the Humber.

**Table 5.5: Percentage working outside their region of permanent or current residence**

| Region | Permanent % | Current % |
|---|---|---|
| East Midlands | 43 | 38 |
| London | 35 | 30 |
| East | 29 | 27 |
| West Midlands | 27 | 22 |
| South West | 27 | 21 |
| Yorkshire & Humber | 22 | 15 |
| North East | 21 | 2 |
| Wales | 18 | 8 |
| North West | 15 | 6 |
| South East | 12 | 11 |
| Scotland | 8 | 2 |
| Northern Ireland | 2 | - |
| All | 21 | 16 |

## Travel to work distances

5.22 On average (mean average), our sample of construction workers in LASER were travelling 23 miles to get to work (each way). Around this average figure there are large variations, with a quarter (27%) travelling five miles or less and half (54%) travelling less than 15 miles. At the other extreme 14% were travelling more than 50 miles each way to work. The situation is summarised on the following table which compares London and the South East to the rest of the UK.

**Table 5.6: Distance travelled by region of establishment (%)**

| Region of establishment | < 5miles | < 10 miles | < 25 miles | > 50 miles | > 100 miles |
|---|---|---|---|---|---|
| | % | % | % | % | % |
| South West | 35 | 46 | 66 | 11 | 1 |
| London | 33 | 55 | 78 | 9 | 1 |
| East Midlands | 30 | 46 | 70 | 15 | 1 |
| Northern Ireland | 29 | 39 | 63 | 13 | * |
| Scotland | 28 | 43 | 73 | 6 | * |
| North West | 27 | 45 | 69 | 11 | 1 |
| Yorkshire & Humberside | 25 | 40 | 66 | 13 | * |
| West Midlands | 25 | 50 | 74 | 10 | * |
| Wales | 25 | 41 | 62 | 15 | 4 |
| South East | 24 | 38 | 64 | 18 | 1 |
| North East | 22 | 41 | 78 | 8 | * |
| East | 17 | 25.6 | 49 | 24 | 2 |
| *All* | *26* | *42* | *67* | *15* | *1* |

5.23 Predictably, those based in temporary accommodation travel much shorter distances to work (just over half travel less than 5 miles and the average is 13 miles). Workers on ECITB sites also have lower travel to work distances than average (a mean of 17 miles) - again we have seen that among ECITB workers there is a high proportion living in temporary accommodation.

5.24 There were quite wide variations in the average travel to work distance by occupation. Relatively specialised occupations who would be expected to be on site for relatively short periods of time (roofers, floorers, plasterers, glaziers, plumbers) had much higher average travel to work distances (averages ranging from 30-39 miles). This contrasts with the situation for labourers and bricklayers where the average was 15 miles respectively for each.

5.25 Construction workers are travelling much further distances to work than residents in London and the South East more generally. This is to be expected given the nature of the sector and the site-based nature of the work. However the degree of the difference may be surprising. Figures for the 1991 census (figures are not available yet from the 2001 census) are shown, these based on those working within an area.

**Table 5.7: Miles travelled to work**

| | Survey | | 1991 Census | |
|---|---|---|---|---|
| | London % | South East % | London % | South East % |
| 5 miles or less | 31 | 24 | 59 | 72 |
| 6 – 15 miles | 33 | 23 | 21 | 15 |
| 16 – 25 miles | 10 | 16 | 10 | 8 |
| > 25 miles | 21 | 35 | 10 | 5 |

## Travelling in to LASER from outside the region

5.26 We have seen that around two in five workers on sites in London and one in five in the South East live (have their permanent address) outside these regions.

5.27 The main reasons for choosing to work in LASER among those unable to commute daily from their permanent address were a mix of necessity, there being no or little work in their home area (31%) or better job opportunities (20%). Some put their motivation as better pay (32%). A quarter of these respondents (25%) had no choice, saying they were sent by their company.

### Current site duration and likely location of future sites

5.28 The following table shows how long workers expect in total their work at the current site to last (this including any time they have currently spent on this project). Results are shown among all workers and then those at ECITB sites, since the pattern is quite different at the latter where projects are often continuous rather than of fixed duration (hence the high level of 'don't know').

**Table 5.8: Length of time expect in total to work at the site**

| | All (3,252) % | ECITB (276) % |
|---|---|---|
| Less than a month | 13 | 3 |
| 1 - 3 months | 17 | 2 |
| > 3 months up to 6 months | 20 | 3 |
| > 6 months up to a year | 22 | 16 |
| More than a year | 20 | 53 |
| Don't know | 7 | 24 |

5.29 Perhaps the key point from a training perspective is the relatively short period of time that many workers are on site, even for these quite large (£1m plus value) projects. Approaching a third expect to work no more than 3 months at the location, and half (50%) expect it to be for six months or less. This clearly suggests quite serious limitations on the likelihood of skill development training or training designed to lead to qualifications taking place in situ.

5.30 Perhaps surprisingly the figures varied very little by key type of project covered in the research (housing, commercial or civil engineering), nor particularly by occupation. Floorers were more likely than average to cite a short duration (half saying it would be a month or less) as were plasterers (57% 3 months or less), and managers were more likely to expect to work on site for longer (36% for 6 months to a year). Otherwise differences were quite slight.

5.31 After finishing at their current site workers were asked if they expect the next job to be in LASER. Only 1% definitely expected their next project to be outside the region (with the most popular common response being 'abroad' mentioned by 0.5% of all respondents), but for a fair number it was clear that there is a fair degree of uncertainty, implying it is dependant on where work is available. Thus for example, 12% were unsure if the next site would be one allowing them to commute on a daily basis from their home address (this as high as 17% among those working for a national employer).

5.32 A fair proportion (21%) of those working in LASER based in temporary accommodation expect their next job to be closer to home.

5.33 The other outflow from the LASER workforce is those expecting to leave the industry. Results as to whether those aged under 60 expect to be in the industry in five years time are presented below.

**Table 5.9: Likelihood of working in construction in 5 years time**

| *Base: all aged under 60* | *All (3,118) %* | *Less than 1 year in construction (260) %* |
|---|---|---|
| Definitely will | 40 | 29 |
| Very likely | 34 | 29 |
| Quite likely | 12 | 17 |
| Quite unlikely | 3 | 5 |
| Very unlikely | 3 | 7 |
| Definitely will not | 4 | 7 |
| Don't know | 4 | 7 |

5.34 One in ten think it unlikely that they will still be in the industry in five years time. It was noticeably higher among those new to the industry (one in five) suggesting that either they are doing the work on a short term basis or that they made the wrong choice of career. That the former is more common is evident in that those thinking it unlikely are particularly high among those working for an agency (21%). Those working as general labourers / operatives were the most likely to think they would be working in other industries in five years time (18%), so broadly speaking the more skilled and qualified part of the construction sector are more likely to foresee continuing in their current career.

# TECHNICAL APPENDIX

## Appendix A: Non-English site workers

As noted in the methodology, twelve contractors that were interviewed had what they described as a significant number of non-English workers on site. Ten (seven of these were in London, where the prevalence of non-English speakers was higher) were later re-contacted to conduct a short telephone interview covering:

- Numbers of such workers and their nationalities
- Their level of English
- How they came to be employed and in what occupations
- The broad reasons as to why they were employed
- How health and safety operated among these workers.

Non-English speakers were most often employed in an unskilled capacity; seven of the ten employers interviewed said these workers were working on site as labourers. Other trades mentioned more than once included groundworkers and dry liners. The number of non-English speakers on site is typically relatively small in absolute terms (25 or less), though one employer indicated that a third of his 500 strong workforce was made up of Eastern European, Turkish and Portuguese workers. "Eastern European" was the most often cited answer in terms of where non-English speakers had originated from, and often employers could rarely be more specific (some were not sure what languages were spoken by these workers). The main reason for this was that for most of the main contractors we spoke to, the non-English speakers were employed and were the responsibility of sub-contractors working on their site.

When contacting employers to re-interview those that initially told us about their having a significant number of non-English workers on site, it became clear that some meant this in terms of English not being the first language of the workers. Perhaps because the issue of health and safety was raised, a common response from the employers / contractors was that all or most of these workers had *some* English. One example: *"the majority speak some English. One or two have very good English."*

The example quote illustrates another more general theme, in that it was common for employers to say that health and safety issues were tackled by one or two of the foreign workers who spoke good English being in charge of a gang of foreign workers, and acting as a go-between where necessary. From a health and safety perspective this is clearly less than ideal.

In terms of how health and safety issues were described as being dealt with the following covers the range of responses given:

- All employers said they gave such workers a health and safety induction (how this was given for non-English speakers was not always clear though the implication was that it would be provided / translated by a workers able to speak the language).
- Two made all workers sit written health and safety tests (in English) which they had to pass to work on site. Again the implication is that all workers had a minimum level of English, hence 'non-English speakers' in these cases is really referring to their not being fluent.

The dangers in regard to health and safety are apparent in that one of the ten sites had recently experienced a bad accident involving one of its foreign workers. At the time of interview the internal inquiry being carried out pointed towards communication difficulties as one of the reasons behind it.

## Appendix B: Web survey

The questionnaire used for site workers for face-to-face interviewing was also available as a web survey, this hosted on the CITB and ECITB websites. The survey went live at the beginning of July and ran till the end of August allowing any press releases aimed at stimulating some response to take effect. In the end, 24 completed responses were received, 22 via the CITB site and two via the ECITB website. To complete the survey, respondents had to be working on construction sites in London and the South East. A relatively large proportion (27%) who logged on to complete the survey were screened out on this criteria.

Web survey respondents diverged from the average site worker interviewed face-to-face or via self-completion in that they tended to be:

- More experienced: half had worked in the industry for over 20 years (36% among those interviewed face-to-face or by self-completion)
- More senior: 5 of the 24 were managers or supervisors, and over half (13) had supervisory or management duties at the site.
- Somewhat better qualified: half had skill certificates and cards, most commonly CSCS cards, and these tending to be at a relatively high level (5 of the 7 with CSCS cards had gold, platinum or black cards).

For these reasons we have not included these respondents in the main body of the survey findings.

## Appendix C: Definition of qualification level

| Level | Qualification / Construction skill card held |
|---|---|
| 1 | NVQ level 1<br>Construction Award – Foundation<br>50% mentions NSDS<br>CSCS card – Red<br>55% Spontaneous 'other' mentions(e.g. JIB, ECITB unspecified, Airport construction cert) |
| 2 | NVQ level 2 (plus 50% of NVQ unspecified / unsure of level)<br>City and Guilds craft (plus 50% unspecified / unsure of level)<br>Construction Award – Intermediate<br>Modern Apprenticeship (FMA)<br>50% other unnamed Apprenticeship<br>50% informal Apprenticeship<br>50% mentions NSDS<br>BTEC / Scotvec first general<br>Certificate in Training Achievement - basic (CTA)<br>Scaffolder's Record Card Scheme – basic or advanced card<br>CSCS card – Blue / Green<br>CPCS (Construction Plant Competence Scheme)<br>CITB Ticket<br>ECI skills database card Grade 2,3<br>35% Spontaneous 'other' mentions (e.g. JIB, ECITB unspecified, Airport construction cert)<br>SMSTS (Site Manager Safety Training Scheme)<br>Civil engineering Site Managers Scheme Supervisory Management Training and Development (SMTD)<br>Chargehand and Team Leader Training<br>Institute of Supervision and Management Workshops<br>Project Management Short Courses<br>Assessor and Verifier Training<br>Misc formal CITB qualifications for managerial or supervisory duties |
| 3 | NVQ level 3 (plus 50% of NVQ unspecified / unsure of level)<br>City & Guilds advanced craft (plus 50% unspecified / unsure of level)<br>Construction Award – Advanced<br>Advanced Modern Apprenticeship (AMA)<br>50% other unnamed Apprenticeship<br>50% informal Apprenticeship<br>OND / ONC / BTEC or Scotvec National<br>NASEC<br>Certificate in Training Achievement – advanced (CTA)<br>ECI skills database card Grade 3<br>CIOB Site Supervisor (First Line Supervisor – FLS)<br>CSCS card – Gold<br>ECI skills database card Grade 4-6<br>10% Spontaneous 'other' mentions by respondents (e.g. JIB, ECITB unspecified) |
| 4 | NVQ level 4<br>Degree (MSc, PhD etc)<br>HNC / HND / BTEC higher<br>CIOB Site Management Education and Training Scheme (SMETS)<br>CSCS card – Platinum |
| 5 | NVQ level 5<br>CSCS card – Black |

## Appendix D: Housing sites

At the presentation of the research findings interest was expressed in seeing the extent to which projects of a similar sort at different phases employ different occupational groups, and the extent to which within projects of the same type and phase there were occupational differences, perhaps suggesting that occupations had been designed out of the construction process. This is an area of the research that the Access Database is designed to tackle but as an indication of the analysis that is possible, we show an example for housing projects below.

The following table shows some of the main occupations employed on housing projects overall and by different phases (the phase as indicated by the contractor), this simply based on the profile of the workers interviewed. The data is unweighted.

| **Profile of those interviewed at housing projects** | | | | |
|---|---|---|---|---|
| | All housing projects | Early phase | Mid phase | End phase |
| *Base: all workers* | *1,192*<br>*%* | *395*<br>*%* | *658*<br>*%* | *139*<br>*%* |
| Labourers | 14 | 15 | 13 | 18 |
| Bricklayers | 14 | 24 | 10 | 6 |
| Carpenters / joiners | 14 | 15 | 13 | 9 |
| Electricians | 8 | 4 | 10 | 14 |
| Groundworkers | 7 | 9 | 6 | 10 |
| Plant machine operatives | 6 | 7 | 6 | 6 |
| Scaffolders | 5 | 5 | 5 | 7 |
| Roofers | 3 | 1 | 5 | 1 |
| Dry liners | 2 | 2 | 2 | 2 |
| Glaziers | 2 | 1 | 3 | 1 |
| Floorers | 1 | 1 | - | 1 |

Highlighted are some of the areas where the occupational profile of housing sites differs by phase. Bricklayers, for example, are much more likely to be employed at sites in the early phase, and electricians at the mid and late phase.

As an example, looking at the early phase *new* housing projects where we interviewed there were three such sites where no bricklayers were interviewed. In one of these, the contractor indicated that bricklayers were one of the main occupational groups, hence either we simply failed to capture this group in the interviewing or by the time we interviewed on site, the project had 'moved on'. Either way the implication is not that bricklaying had somehow been designed out. At the other two of these sites, there were relatively large numbers of groundworkers, indicating that the project was at a stage prior to bricklayers being needed.

## Appendix E: Occupational switching within construction

Chapter 3 of the report (from section 3.27) discusses the range and pattern of occupational switching within the construction sector. This focused on those occupations where there was a relatively large number of respondents. Here we present figures for nearly all those occupations encountered. **In many instances caution is needed because of low bases sizes**. For this reason in the second column of data we show the actual number of respondents we interviewed who had switched occupation / role into their current position.

*Hence for example while 71% of cladders interviewed had started out in a different occupation within construction, we only interviewed 5 cladders who had switched occupation (i.e. of the 7 interviewed 5 had started out in a different role).*

The table is ranked by the likelihood of having switched occupation. The data presented is unweighted.

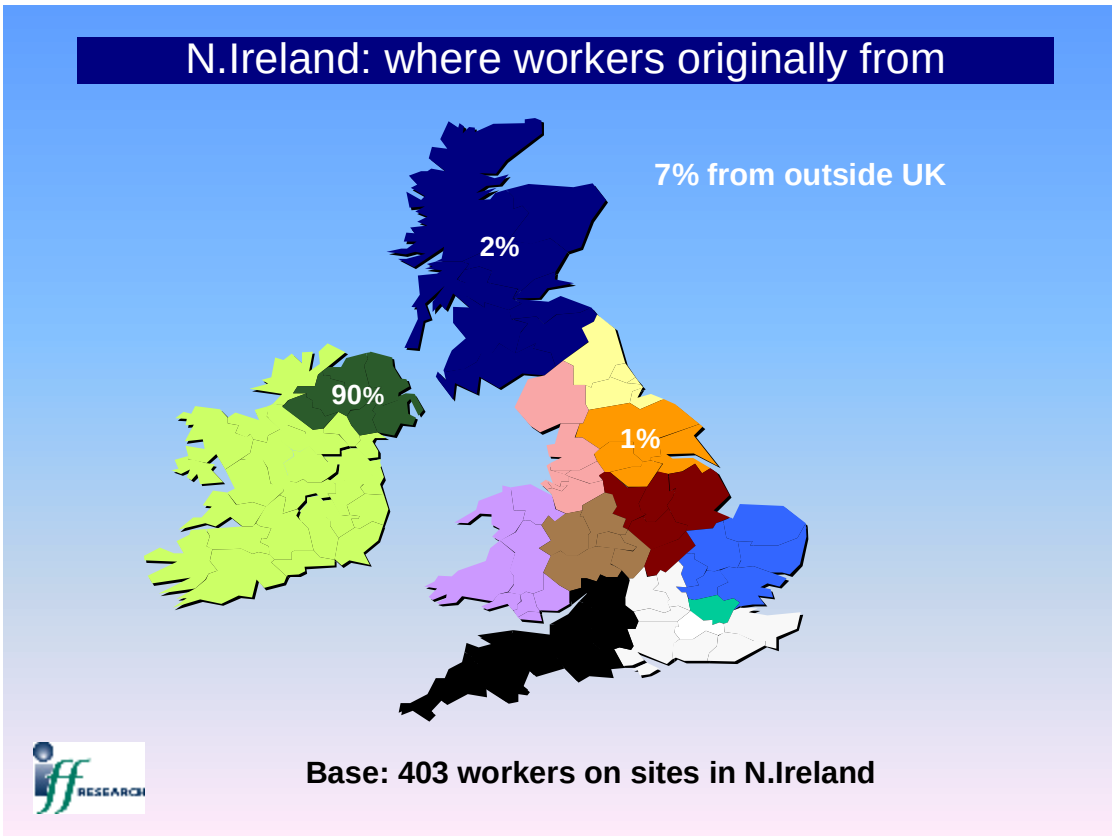
| **Degree of occupational switching within construction** | | | | |
|---|---|---|---|---|
| *Current occupation* | **% of that occupation who have switched into it from another that construction occupation** | **Number switching into that construction occupations (1,118)** | **Main occupations switched from** | **% of that occupation who have worked in other industries** |
| Cladder | **71** | 5 | Banksman, carpenter / joiner, ceiling fixer, dry liner, labourer | 0 |
| Banksmen / Banksperson | **68** | 27 | Labourer / operatives (44%), steel erector / rigger (22%), plant machine operator (19%), groundworker (15%), supervisors and roofers (both 11%) | 8 |
| Concrete repair | **65** | 11 | Carpenter / joiner, groundworker (both 27%). | 12 |
| Ceiling fixer | **60** | 15 | Carpenter / joiner (47%), groundworker (13%). | 8 |

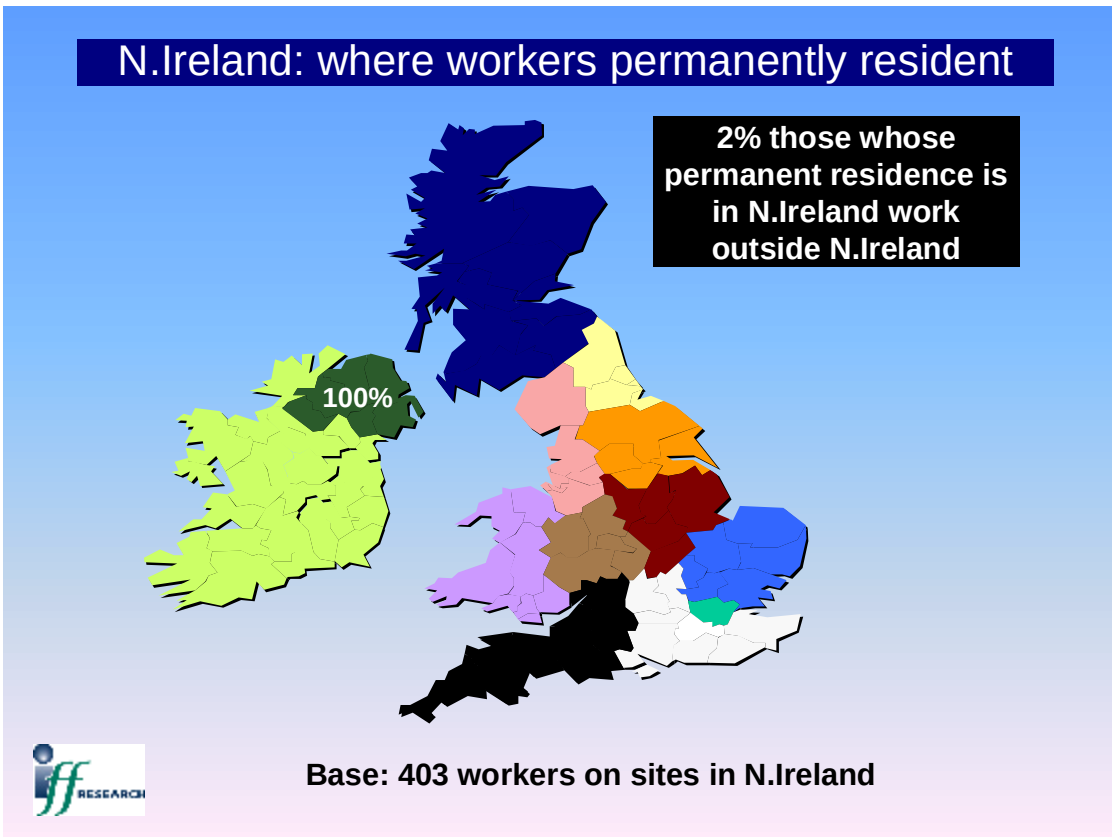
| | | | | |
|---|---|---|---|---|
| Plant machine op. | **59** | 104 | Labourer / operatives (56%), groundworker (32%), banksman / bankperson (21%), | 10 |
| Glazier | **59** | 23 | Carpenter / joiner (39%), labourer / operatives (30%) | 8 |
| Technical worker | **53** | 58 | Labourer / operative (24%), supervisor (17%), plant machine operator (14%), painter / decorator (12%), groundworker (10%). | 6 |
| Sign fitter | **50** | 2 | Labourer, groundworker, bricklayer | 0 |
| Fire protection | **50** | 5 | Dry liners, floorers, labourers | 10 |
| Steel fixer | **45** | 10 | Labourer / operatives (60%), carpenter / joiner (40%) | 9 |
| Hod carrier | **44** | 12 | Labourer / operatives, floorers, plasterers (all 17%) | 7 |
| Steel erector / rigger | **43** | 41 | Labourers / operatives (15%), then painter / decorators, bricklayers, banksmen, carpenter / joiner all 10%-12% | 9 |
| Chainsman | **40** | 4 | Labourers, pipe fitters, plumbers | 40 |
| Groundworker | **38** | 70 | Labourer / operatives (37%) | 10 |
| Duct worker | **38** | 10 | Labourer / operatives (50%) | 15 |
| Stone mason / fixer | **38** | 5 | Labourer / operatives, dry liner, painter/decorator, scaffolder | 0 |
| Welder | **37** | 13 | Labourer / operatives (31%), plant machine operators and plumbers (both 15%) | 6 |

| | | | | |
|---|---|---|---|---|
| Bricklayer | **35** | 115 | Labourer / operatives (43%), groundworker (20%), roofer (10%), | 6 |
| Dry liner / Plasterers | **35** | 32 | Labourer / operatives (31%), carpenter / joiner (22%) | 9 |
| Scaffolder | **33** | 57 | Labourer / operatives (40%), steel erector / rigger (11%), | 5 |
| Painter / Decorator | **29** | 34 | Labourer / operatives (26%), plasterer (18%), carpenter / joiner (12%), roofer (12%), | 13 |
| Carpenter/joiner | **27** | 106 | Labourer / operatives (36%), groundworker (20%), Roofer (14%), Steel erector / rigger (10%) | 6 |
| Labourer | **26** | 121 | Groundworker (25%), banksman (14%), bricklayer (12%) | 14 |
| Pipe fitter | **26** | 25 | Labourer / operative (28%), groundworker (24%), plumber (24%), steel erectors / riggers (12%) | 6 |
| Floorer | **26** | 9 | Labourer / operatives (33%) | 9 |
| Roofer | **24** | 16 | Carpenter / joiner (25%), Electricians / plant machine operator (both 19%), Labourers / operatives / banksmen ( both 13%), | 8 |
| Curtain wall / cavity wall | **23** | 5 | Labourer / operatives (60%) | 9 |
| Demolition | **20** | 2 | Mixture of plant / machine operator, painter/ decorator, Roofer, groundworker | 0 |
| Plumber | **19** | 27 | Labourer / operative (26%), technicians / technical (19%), pipe fitter (15%), carpenter / joiner (11%). | 3 |

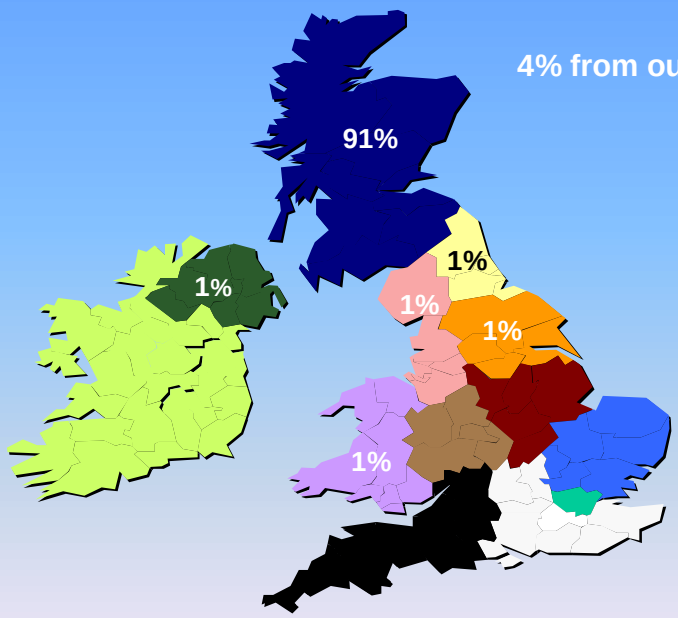
| | | | | |
|---|---|---|---|---|
| Electrician | **12** | 35 | Labourer / operatives (34%), otherwise no previous specific occupation was mentioned by more than 10% | 6 |
| Mechanical fitter | **4** | 1 | Hod carrier | 4 |

**Appendix F: Maps of UK charting mobility across the regions**



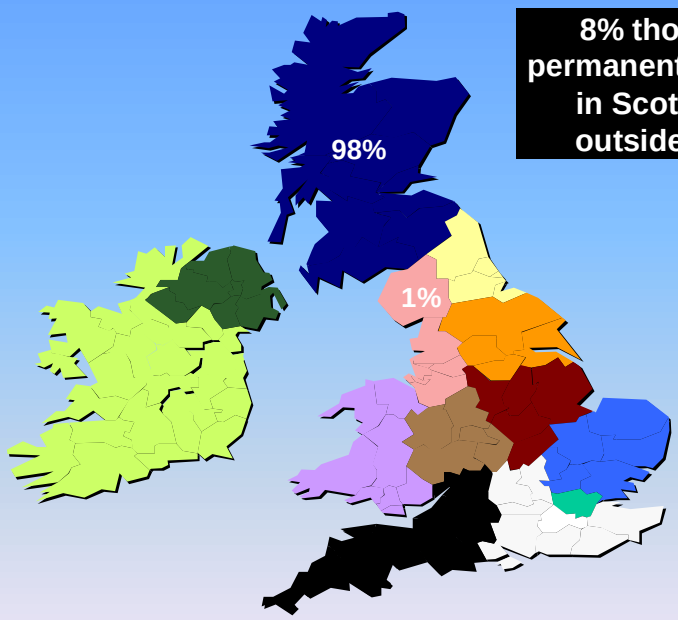



## Scotland: where workers originally from



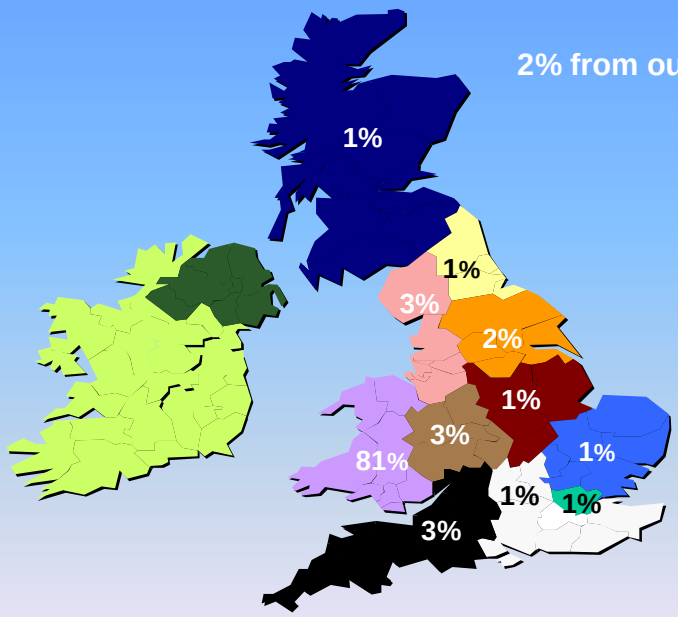

Base: 585 workers on sites in Scotland

## Scotland: where workers permanently resident



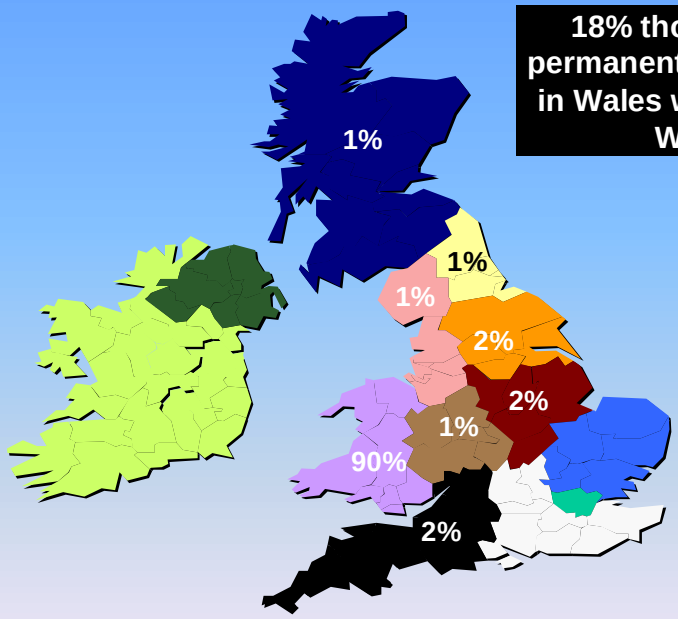

Base: 585 workers on sites in Scotland

## Wales: where workers originally from



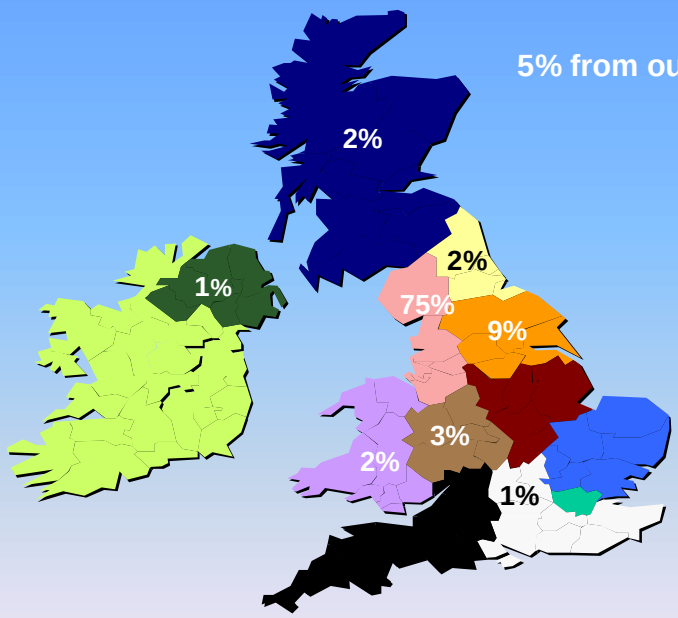

Base: 399 workers on sites in Wales

## Wales: where workers permanently resident



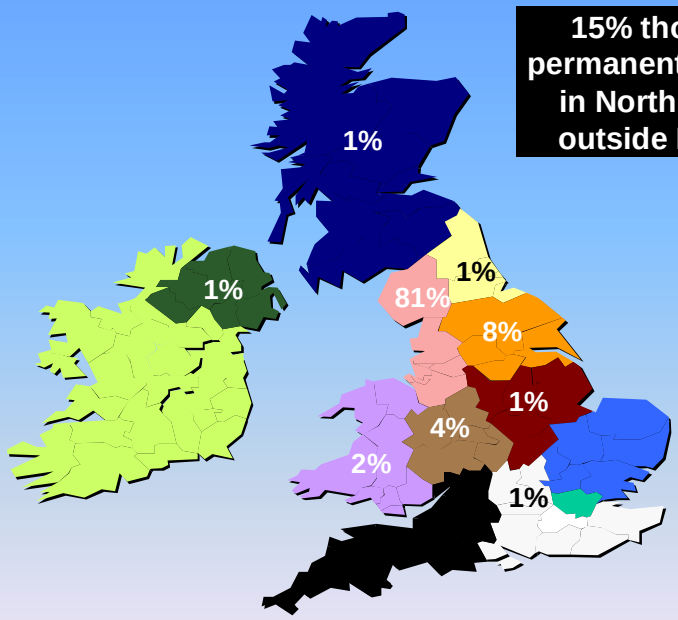

Base: 399 workers on sites in Wales

## North West: where workers originally from



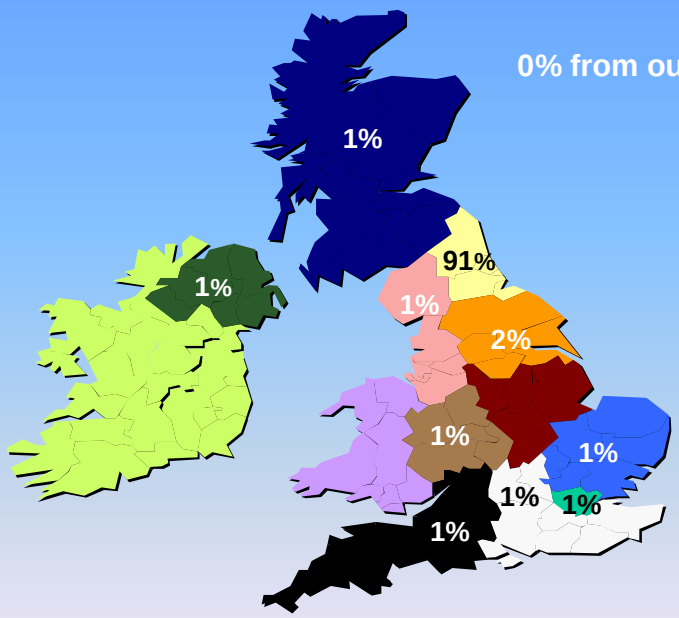

Base: 686 workers on sites in North West

## North West: where workers permanently resident



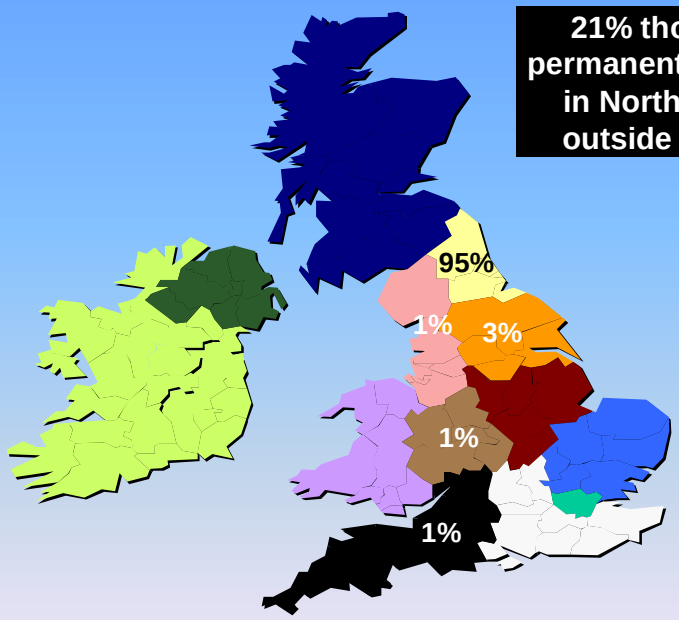

Base: 686 workers on sites in North West

## North East: where workers originally from



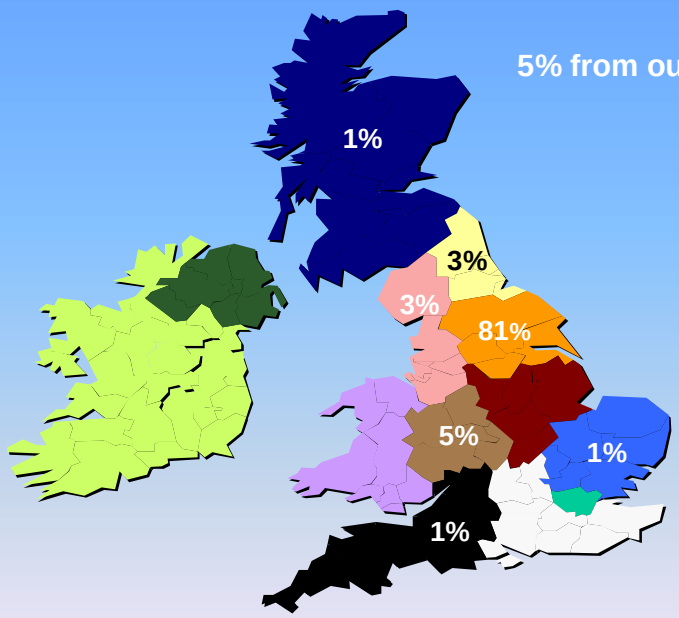

Base: 378 workers on sites in North East

## North East: where workers permanently resident



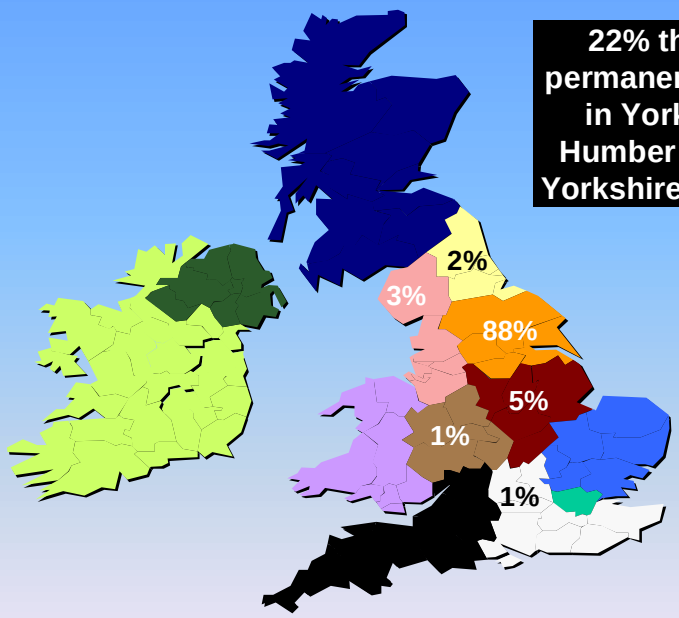

Base: 378 workers on sites in North East

## Yorkshire & the Humber: where workers originally from



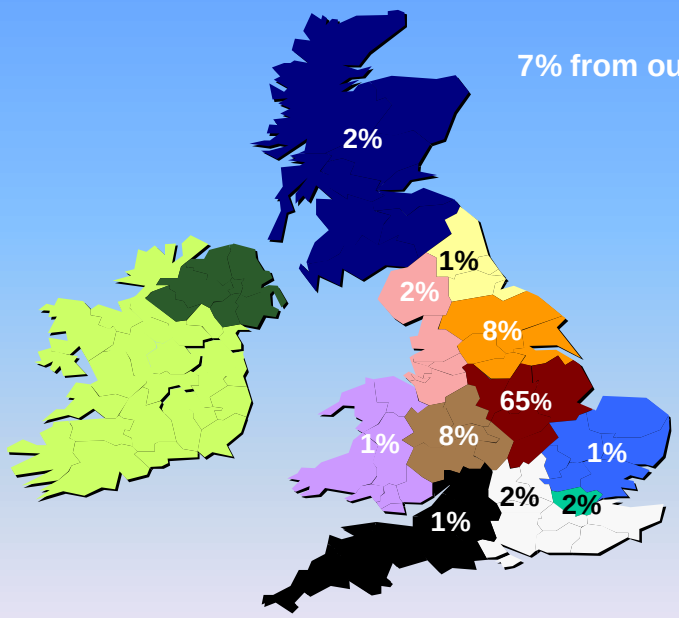

Base: 604 workers on sites in Yorkshire & the Humber

## Yorkshire & the Humber: where workers permanently resident



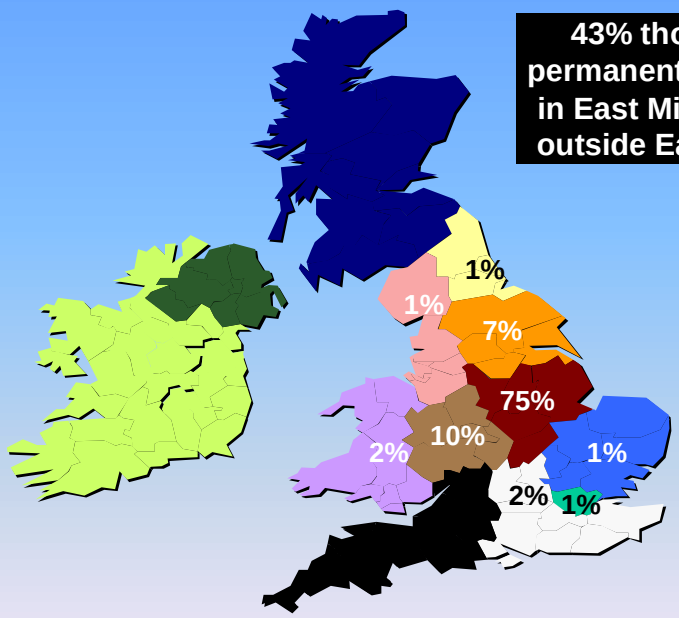

Base: 604 workers on sites in Yorkshire & the Humber

## East Midlands: where workers originally from



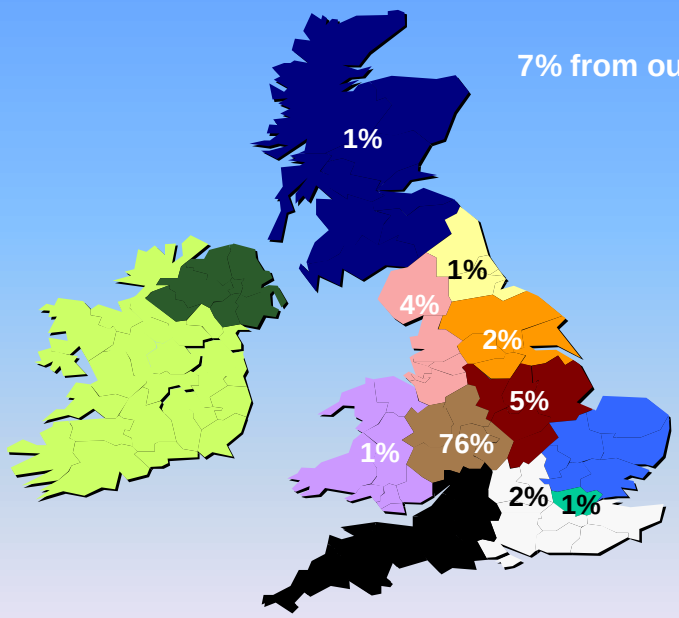

Base: 452 workers on sites in the East Midlands

## East Midlands: where workers permanently resident



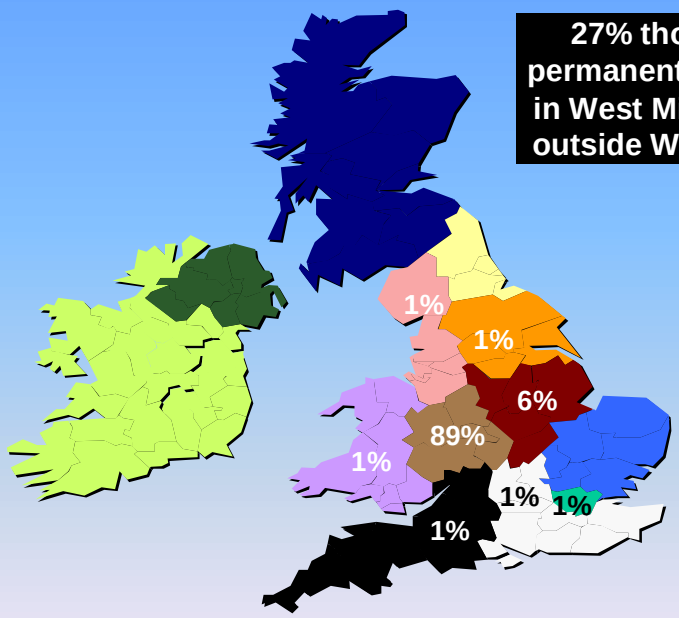

Base: 452 workers on sites in the East Midlands

## West Midlands: where workers originally from



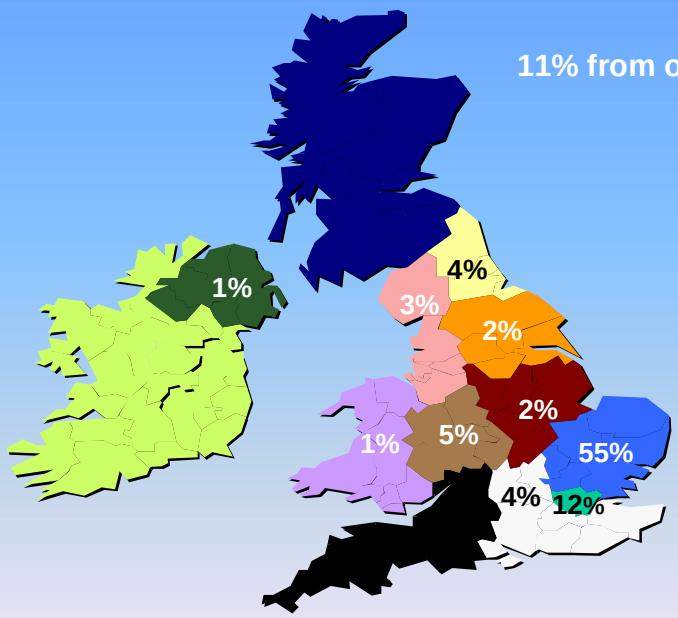

Base: 517 workers on sites in the West Midlands

## West Midlands: where workers permanently resident



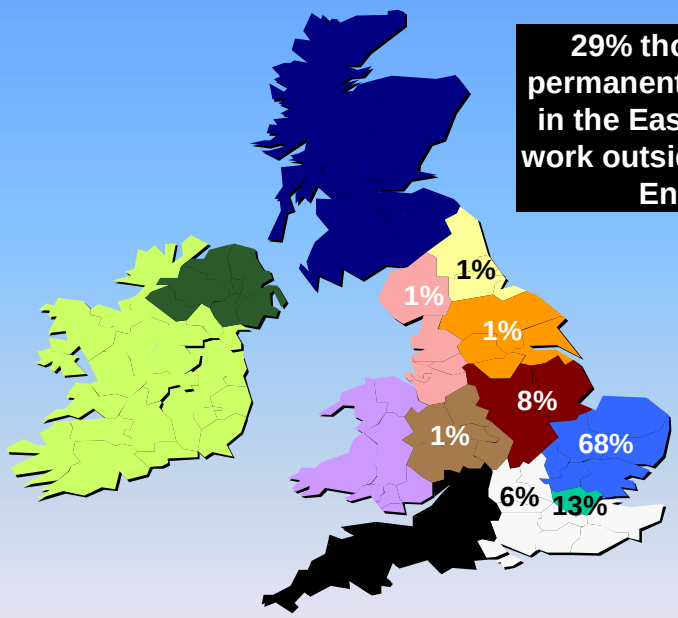

Base: 517 workers on sites in the West Midlands

## East of England: where workers originally from

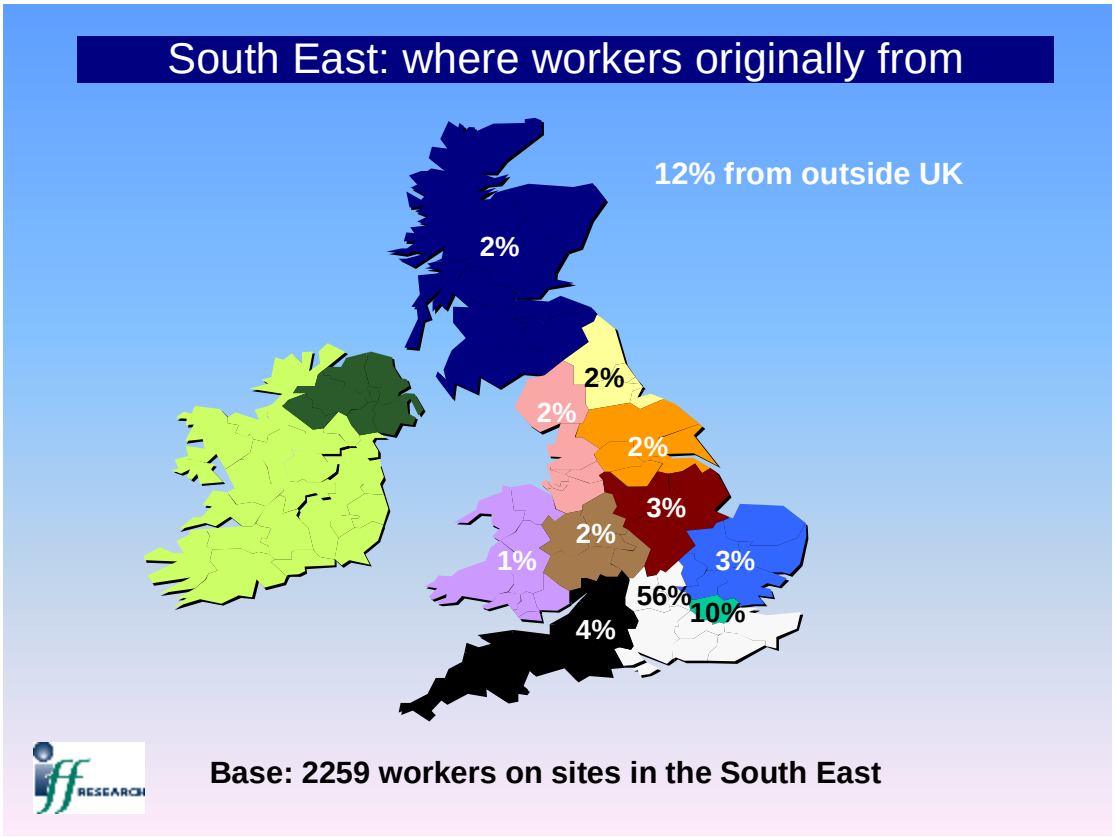


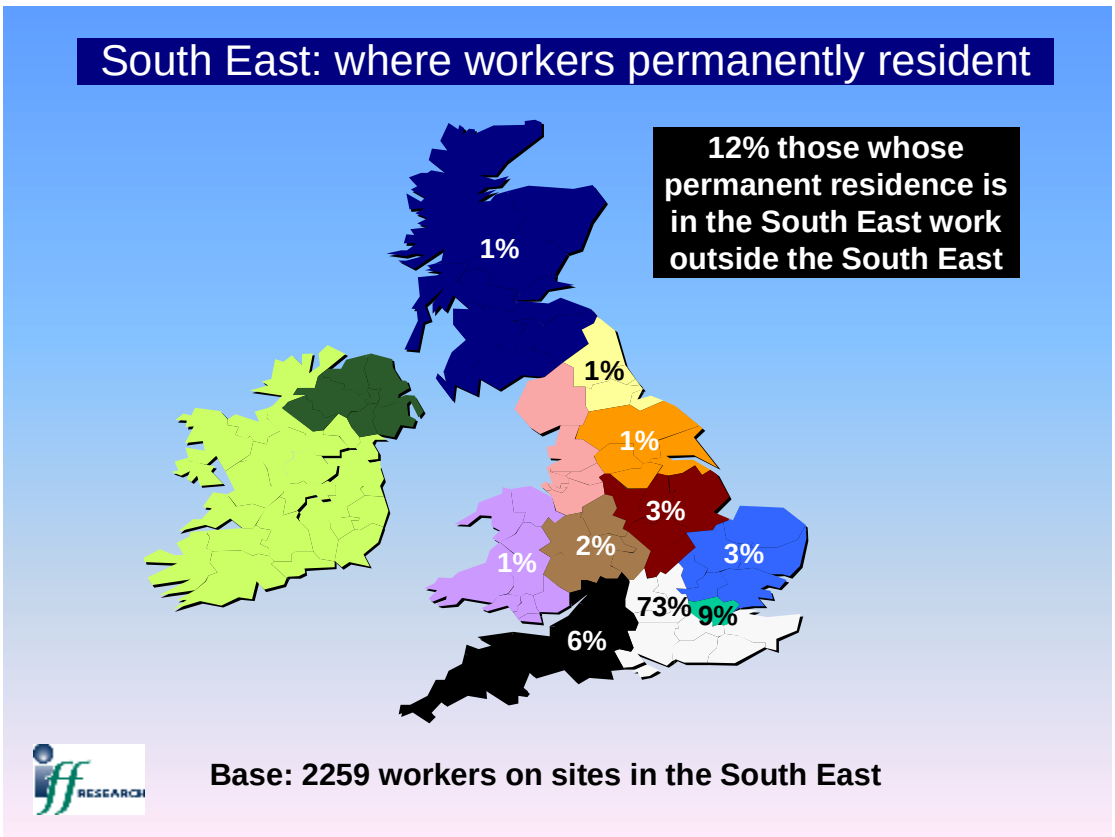

Base: 651 workers on sites in the East of England

## East of England: where workers permanently resident

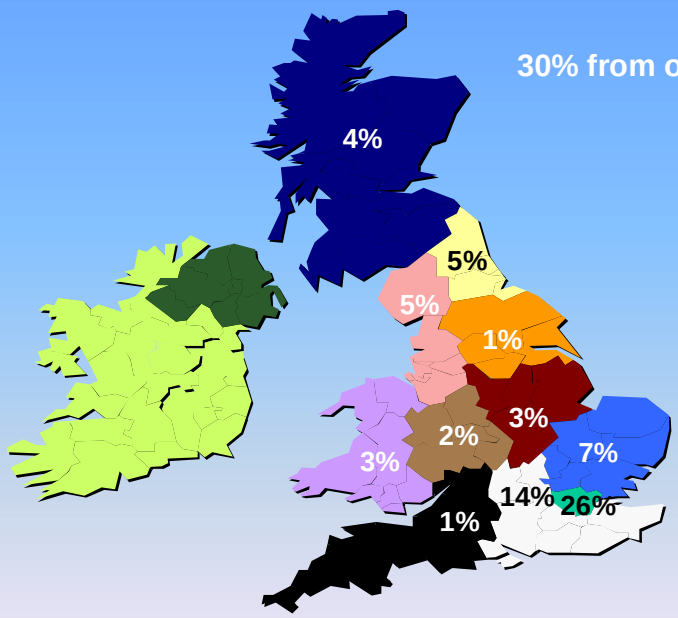



Base: 651 workers on sites in the East of England


South East: where workers originally from
12% from outside UK
2%
2%
2%
2%
3%
2%
1%
3%
56%
10%
4%
Base: 2259 workers on sites in the South East

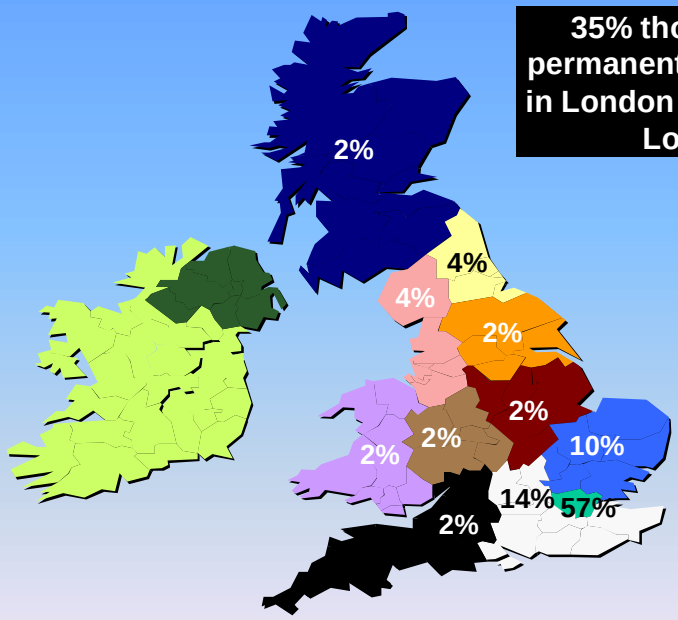

South East: where workers permanently resident
12% those whose permanent residence is in the South East work outside the South East
1%
1%
1%
3%
2%
3%
1%
73%
9%
6%
Base: 2259 workers on sites in the South East

## London: where workers originally from



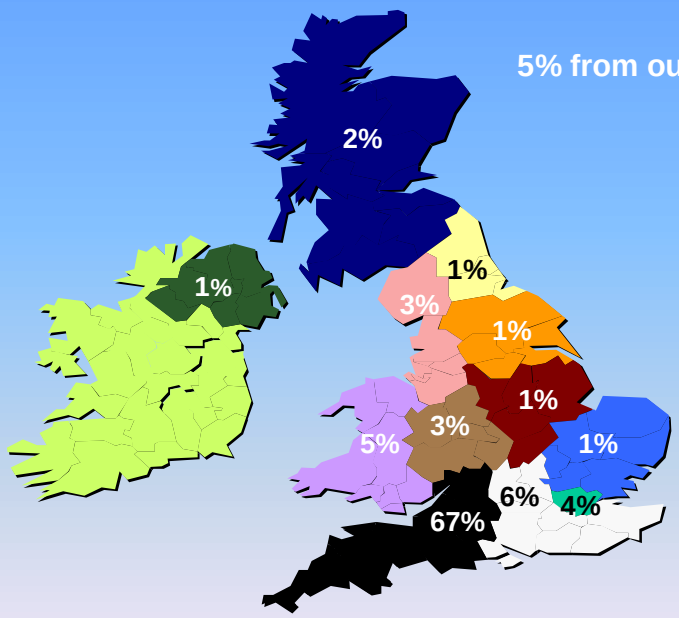

Base: 993 workers on sites in London

## London: where workers permanently resident



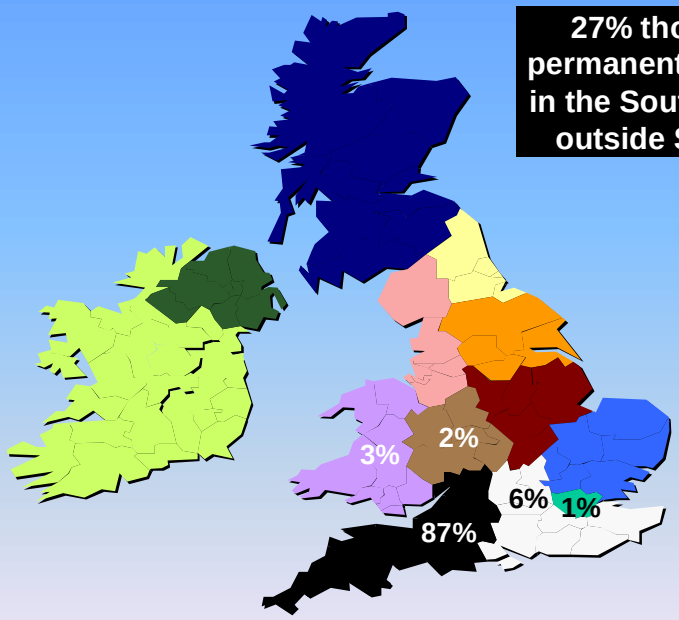

Base: 993 workers on sites in London

## South West: where workers originally from




Base: 509 workers on sites in the South West

## South West: where workers permanently resident




Base: 509 workers on sites in the South West

## Table A1: Percentage of workers permanently resident in each region (horizontal %)

| *Region of Site* | *Base: all with region codes* | | *North East* | *North West* | *Y&H* | *East Mids* | *West Mids* | *East* | *London* | *South East* | *South West* | *Scot.* | *Wales* | *N Ire.* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Northern Ireland | 381 | % | 0.0 | 0.3 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | **99.5** |
| South West | 470 | % | 0.2 | 0.0 | 0.0 | 0.4 | 1.7 | 0.2 | 1.3 | 6.2 | **86.6** | 0.4 | 3.0 | 0.0 |
| East | 593 | % | 0.8 | 1.0 | 0.5 | 7.9 | 1.3 | **68.3** | 13.3 | 5.9 | 0.2 | 0.2 | 0.3 | 0.2 |
| North West | 636 | % | 1.4 | **81.4** | 8.0 | 0.9 | 3.8 | 0.2 | 0.2 | 0.6 | 0.0 | 0.9 | 1.7 | 0.8 |
| Yorkshire & Humb. | 570 | % | 2.3 | 3.0 | **88.4** | 4.7 | 0.7 | 0.4 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| West Midlands | 436 | % | 0.0 | 1.4 | 0.9 | 6.4 | **88.8** | 0.0 | 0.7 | 0.5 | 0.5 | 0.0 | 0.9 | 0.0 |
| East Midlands | 364 | % | 1.4 | 0.8 | 6.9 | **75.3** | 9.3 | 0.5 | 1.1 | 2.2 | 0.0 | 0.3 | 2.2 | 0.0 |
| North East | 352 | **%** | **94.6** | 0.6 | 2.8 | 0.0 | 0.6 | 0.0 | 0.0 | 0.3 | 0.6 | 0.3 | 0.3 | 0.0 |
| Wales | 355 | % | 0.8 | 1.4 | 2.3 | 1.7 | 1.4 | 0.0 | 0.3 | 0.0 | 1.7 | 0.6 | **89.9** | 0.0 |
| Scotland | 544 | % | 0.4 | 0.7 | 0.2 | 0.0 | 0.0 | 0.2 | 0.2 | 0.0 | 0.0 | **98.2** | 0.2 | 0.0 |
| London | 944 | % | 3.5 | 4.1 | 1.5 | 1.8 | 1.6 | 10.1 | **57.3** | 14.4 | 1.8 | 1.9 | 2.0 | 0.0 |
| South East | 2,151 | % | 0.7 | 0.4 | 1.3 | 3.3 | 1.9 | 3.1 | 9.3 | **73.4** | 5.5 | 0.6 | 0.5 | 0.1 |
| *All* | *7,796* | *%* | *5.4* | *7.8* | *8.3* | *6.1* | *6.8* | *7.3* | *10.7* | *23.0* | *7.1* | *7.4* | *5.0* | *5.0* |