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# **Survey of Employment by Occupation in the Construction Industry**

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# Contents

<b>1</b>	<b>Introduction .....</b>	<b>7</b>
1.1	Background .....	7
1.2	Aims of the research .....	7
1.3	Methodology .....	7
<b>2</b>	<b>Executive summary .....</b>	<b>9</b>
<b>3</b>	<b>Findings .....</b>	<b>11</b>
3.1	Notes to tables .....	11
3.2	Overview of workforce .....	11
3.3	Manual occupations .....	13
3.4	Non-manual occupations.....	21
3.5	Main activity of company .....	24
3.6	Staff distribution, turnover and recruitment.....	32
<b>4</b>	<b>Tables .....</b>	<b>33</b>
<b>5</b>	<b>Time series analysis .....</b>	<b>48</b>
5.1	Manual and non-manual occupations 1998-2015.....	48
5.2	Employment status of the workforce 1998-2015 .....	48
5.3	Gender distribution of workforce 1998-2015.....	50
<b>6</b>	<b>Technical details .....</b>	<b>51</b>
6.1	Sample selection .....	51
6.1.1	Coverage of sectors in the construction industry .....	51
6.1.2	The basis for selecting companies .....	52
6.2	Questionnaire design .....	53
6.3	Pilot .....	53
6.4	Data collection.....	53
6.4.1	Fieldwork process.....	53
6.4.2	Questionnaire errors .....	54
6.5	Response rate .....	54
6.6	Data preparation.....	56
6.6.1	Potential sources of error .....	56
6.6.2	Checks .....	56

6.7	Weighting and grossing procedures .....	56
6.8	Comparison with the Labour Force Survey .....	58
	Appendix A. Invitation email .....	62
	Appendix B. Invitation letter .....	63
	Appendix C. Reminder letter .....	64
	Appendix D. Paper questionnaire .....	65

## Tables

Table 3.1	Distribution of the workforce by occupational group
Table 3.2	Employment status of the workforce
Table 3.4	Distribution of the manual workforce by occupational group: Main trades
Table 3.5	Distribution of the manual workforce by occupational group: Specialist building trades
Table 3.6	Distribution of the manual workforce by occupational group: Other operatives
Table 3.6	Distribution of the manual workforce by occupational group: Other operatives
Table 3.7	Distribution of the manual workforce by occupational group: Building services
Table 3.8	Distribution of the main trades by occupational group
Table 3.9	Distribution of the specialist building trades by occupational group
Table 3.10	Distribution of the other operatives by occupational group
Table 3.11	Distribution of the building services by occupational group
Table 3.12	Distribution of the non-manual workforce by occupational group
Table 3.13	Non-manual occupations by gender
Table 3.14	Distribution of the female workforce
Table 3.15	Number of workers within different sectors of the construction industry
Table 3.16	Distribution of the workforce by occupational group (House build and new build)
Table 3.17	Distribution of the workforce by occupational group (House build and repair and maintenance companies)
Table 3.18	Distribution of the workforce by occupational group (Non-residential and new build companies)
Table 3.19	Distribution of the workforce by occupational group (Non-residential and repair and maintenance companies)

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Table 3.20 Distribution of the workforce by occupational group (Engineering and new build companies)

Table 3.21 Distribution of the workforce by occupational group (Civil engineering and repair and maintenance companies)

Table 3.22 Distribution of staff and annual turnover

Table 3.23 Recruitment of on-site and office-based staff

Table 4.1 Total numbers by occupational category (page 1 of 4)

Table 4.1 Total numbers by occupational category (page 2 of 4)

Table 4.1 Total numbers by occupational category (page 3 of 4)

Table 4.1 Total numbers by occupational category (page 4 of 4)

Table 4.2 Occupational category by employment status (page 1 of 4)

Table 4.2 Occupational category by employment status (page 2 of 4)

Table 4.2 Occupational category by employment status (page 3 of 4)

Table 4.2 Occupational category by employment status (page 4 of 4)

Table 4.3 Occupational category by gender (page 1 of 4)

Table 4.3 Occupational category by gender (page 2 of 4)

Table 4.3 Occupational category by gender (page 3 of 4)

Table 4.3 Occupational category by gender (page 4 of 4)

Table 4.4 Employment status by gender (page 1 of 2)

Table 4.4 Employment status by gender (page 2 of 2)

Table 4.5 Occupational category by employment status

Table 4.6 Gender by occupation

Table 5.1 Manual and non-manual occupations 1998-2015

Table 5.2 Employment status of the workforce 1998-2015

Table 5.3 Employment status of the manual workforce 1998-2015

Table 5.4 Employment status of the non-manual workforce 1998-2015

Table 5.5 Gender distribution of workforce 1998-2015

Table 5.6 Gender distribution of manual workforce 1998-2015

Table 5.7 Gender distribution of non-manual workforce 1998-2015



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# 1 Introduction

## 1.1 Background

This is the fifth in a series of surveys that was first conducted in 1998 and repeated in 2001, 2005 and 2011. The survey sets out to provide accurate estimates of workforce size and composition in terms of the number of employees, trainees, and self-employed, by occupational category, and by gender across both non-manual and manual occupations.

The 2015 survey was commissioned by Construction Industry Training Board (CITB) in partnership with Department for Business and Innovation Skills and carried out by NatCen Social Research (NatCen). CITB is both the Industry Training Board and a partner in the Sector Skills Council for the construction industry, working with industry, for industry to deliver a safe, professional and fully qualified UK construction workforce. The results will enable CITB to express a reasonable opinion about the size and structure of occupations that cannot be easily disaggregated from national statistics (specifically the Labour Force Survey). They will also provide a basis for analysing skill needs and for planning future training requirements in the construction industry.

## 1.2 Aims of the research

Continuing and developing the work of the previous survey waves, the 2015 survey set out to establish accurate estimates of:

- The numbers of people employed by occupational categories which reflect the variety of skills in the industry;
- Employment by occupation across three main sub-sectors (non-residential building, housebuilding or civil engineering) along with the form of work mainly being undertaken (new build or repair and maintenance);
- The gender profile of the workforce (male or female);
- The composition of the workforce in terms of employment status (direct employees, trainees or self-employed).

## 1.3 Methodology

A sample of 4,000 companies was drawn from the Inter-Departmental Business Register (IDBR). This is widely considered to be the most comprehensive and accurate database of businesses in the UK. The sampled organisations were asked to report on the size of their workforce under three main headings: employees, trainees and the self-employed.

The sample aimed to be representative of the construction industry as defined by the Construction Industry Sector Skills Council (SSC) footprint. The SSC footprint is defined in terms of the Standard Industrial Classification (SIC 2007) and specifically includes categories in SIC 41, SIC 42, SIC 43, SIC 71 and SIC 74. The detailed sub-divisions are listed in the Chapter 6.

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For the first time in 2016 respondents were offered the opportunity to complete the survey online. To enable response online, the sample was matched with Experian database. The matching exercise provided NatCen with enhanced contact details, specifically a named contact within the organisations and their email address.

Each selected company was first invited to take part online or through a self-completion paper questionnaire and was asked to complete it in relation to a specific reference week – week commencing 5<sup>th</sup> December 2015. Organisations were sent a series of reminders and those not responding were then contacted by telephone to encourage response. The eventual response rate was 12%, yielding a total of 470 questionnaires for processing. This compares with 660 at the previous wave. After removal of duplicates and cases that did not contain enough information to be included in the results, 454 cases were brought into the analysis. The data from these were then ‘grossed up’ to the total number of companies on the original databases, resulting in estimates of the total workforce in those companies as a whole.

The procedures are described in more detail in Chapter 6.



## 2 Executive summary

- This report presents the results of a survey of employment by occupation in the construction industry. It was conducted in spring 2016 on behalf of the Construction Industry Training Board. Respondents were asked to record details of their workforce with reference to week commencing 5<sup>th</sup> December 2015.
- The survey was carried out amongst construction companies on the Inter-Departmental Business Register (IBDR), considered to be the most comprehensive and accurate database of businesses in the UK.
- The total estimated size of the construction industry workforce was around 1.89 million.
- Over half (65 per cent) of the construction industry workforce worked in manual occupations. Building services formed the largest group of manual workers.
- Just over a third (35 per cent) of the total workforce were in non-manual occupations. Construction professionals and technical workers were the largest group in this employment category.
- The distribution of the construction workforce across the main occupational groups is summarised in the following table:

Distribution of construction workforce across main occupational categories	
Occupation	%
<b>MANUAL OCCUPATIONS</b>	
Total bricklayers	8.8%
Total roofers	4.1%
Total scaffolders	1.9%
Total floorers	0.9%
Total painters and decorators	2.4%
Total partition operatives	2.5%
Total wood trades	11.1%
Total steel workers	1.1%
Total glaziers	1.9%
Total civil engineering operatives	4.6%
Total plant operatives	2.6%
Total building services	12.9%
Total specialists	2.2%
Total modern methods	0.4%
Total labourers and non-construction operatives	7.1%
<b>TOTAL MANUAL OCCUPATIONS</b>	<b>64.5%</b>

<b>NON-MANUAL OCCUPATIONS</b>	
Total office staff	9.8%
Total managers	9.0%
Total technicians	6.4%
Total professionals	10.3%
<b>TOTAL NON-MANUAL OCCUPATIONS</b>	<b>35.5%</b>
<b>Overall total: Manual and non-manual</b>	<b>100.0%</b>
<i>Unweighted base</i>	<i>42007</i>

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## 3 Findings

### 3.1 Notes to tables

There were a number of changes to the methodology in 2015 to improve the survey. These should be taken into account when interpreting the findings, particularly when making comparisons with earlier years.

- For the first time, all participants were offered the opportunity to complete the survey online as well as on paper.
- In 2015 the 'conservation system installers' occupation was removed from modern methods category. Carbon managers were changed to be called 'energy managers'.
- The 2015 and 2011 occupational categories included in the survey differ from those used in 2005. Whilst there is a high degree of overlap there are several new categories in manual and non-manual occupations.
- The 2015 and 2011 occupational groups differ from earlier years, with occupations being placed in different or new groups that better reflect the nature of the occupations. For example, electricians are included as building services and there is a new occupational group called 'modern methods' that includes many of the emerging 'green' occupations.

Despite very similar methodologies, the 2015 survey had a smaller response rate than the surveys carried out in previous years (see Section 6.5 for further details).

### 3.2 Overview of workforce

Based on our estimates, the overall size of the construction industry workforce at the time of the survey was 1,892,427. Of these:

- 65 per cent (1.2 million) were in manual occupations and 36 per cent (672 thousand) were in non-manual occupations.
- 75 per cent (1.4 million) were employees, 5 per cent trainees (93 thousand) and 20 per cent self-employed (380 thousand).
- 87 per cent were men (1.7 million) and 13 per cent women (238 thousand).

Table 3.1 gives an overview of the distribution of the workforce across the occupational groups. These have been combined into summary groups for analytical purposes. The more detailed breakdown of the occupational categories can be found in the reference tables in chapter 4. The category number on the left in the below table refers to the more detailed categories used in the questionnaire.

As the table below shows, 65 per cent of the workforce was in manual occupations in 2015. Building services was the largest occupational group within this category. Just over a third of the workforce (36 per cent) was in non-manual occupations with a fairly large proportion of constructions professionals and technical staff.

Table 3.1 Distribution of the workforce by occupational group

Survey category	Occupation	n	%
	<b>MANUAL OCCUPATIONS</b>		
1 - 6	Total bricklayers	167141	8.8%
7 - 14	Total roofers	77473	4.1%
15	Scaffolders	35268	1.9%
16 - 19	Total floorers	17371	0.9%
20 - 21	Total painters and decorators	45394	2.4%
22- 26	Total partition operatives	47357	2.5%
27 - 32	Total wood trades	210139	11.1%
33 - 34	Total steel workers	21695	1.1%
35	Glaziers	36741	1.9%
36 - 42	Total civil engineering operatives	87103	4.6%
43 - 47	Total plant operatives	48468	2.6%
48 - 51	Total building services	243233	12.9%
52 - 58	Total specialist	41501	2.2%
59 - 64	Total modern methods	8136	0.4%
77, 79, 81-83	Total non-construction operatives and labourers	133705	7.1%
	<b>TOTAL MANUAL OCCUPATIONS</b>	<b>1220726</b>	<b>64.5%</b>
	<b>NON-MANUAL OCCUPATIONS</b>		
78, 84	Total office staff	185695	9.8%
68, 71, 72, 76	Total managers	170069	9.0%
66-67, 70, 74	Total technicians	121293	6.4%
65, 69, 73, 75, 80	Total professionals	194644	10.3%
	<b>TOTAL NON-MANUAL OCCUPATIONS</b>	<b>671701</b>	<b>35.5%</b>
	<b>Overall total: Manual and non-manual</b>	<b>1892427</b>	<b>100.0%</b>
	<i>Unweighted base</i>	<i>42007</i>	

Employers were asked to categorise their workforce according to whether they were employees, trainees or self-employed. These were defined as follows:

- **Employees** were defined to exclude trainees, to avoid double-counting.
- **Trainees** were defined as persons (including apprentices and those on graduate schemes) learning a skill, whose employer had undertaken to provide managerial, administrative, professional, technical, or manual training for a specified period of at least 12 months.
- **Self-employed** were defined to include sub-contractors and those employed through a recruitment agency.

Table 3.2 gives an overview of the employment status of the workforce. Across both manual and non-manual categories the majority of the workforce consisted of employees. This group

formed 65 per cent of the manual workforce, and 93 per cent of those in non-manual occupations. The proportion of self-employed workers was far higher in manual occupations (29 per cent) than non-manual occupations (4 per cent). There were also slightly more trainees in the manual workforce (6 per cent) in comparison to those working in non-manual occupations (3 per cent).

**Table 3.2 Employment status of the workforce**

Employment status	Manual		Non-manual		Total	
	n	%	n	%	n	%
Employees	792100	64.9%	626297	93.2%	1418397	75.0%
Trainees	75118	6.2%	17980	2.7%	93098	4.9%
Self-employed	353508	29.0%	27424	4.1%	380932	20.1%
Total	1220726	100.0%	671701	100.0%	1892427	100.0%
<i>Unweighted base</i>	25719		16288		42007	

Table 3.3 gives an overview of the gender status of the workforce. Women comprised a relatively small proportion of the workforce (13 per cent) in the sectors covered by the survey. Men dominated both the manual and non-manual occupations – although the proportion of women in the non-manual occupations (35 per cent) was far higher than the proportion in the manual occupations (1 per cent).

**Table 3.3 Gender of the workforce**

Employment status	Manual		Non-manual		Total	
	n	%	n	%	n	%
Men	1214635	99.5%	439973	65.5%	1654608	87.4%
Women	6091	0.5%	231728	34.5%	237819	12.6%
Total	1220726	100.0%	671701	100.0%	1892427	100.0%
<i>Unweighted base</i>	37548		4558		42007	

### 3.3 Manual occupations

As already noted above, the majority (65 per cent) of the construction industry workforce covered by the survey were in manual occupation categories. The following tables show the distribution of the manual workforce classified into main trades, specialist building trades, other operatives and building services. The tables show the number of employees, trainees, self-employed and the overall workforce total as a proportion of all manual occupations.

The main trades accounted for 39 per cent of all manual workers. Thirty-seven per cent of manual employees, 54 per cent were trainees and 38 per cent of those who worked as self-employed people were working in the main trades occupational categories.

Table 3.4 Distribution of the manual workforce by occupational group: Main trades

Main trades occupation	Employees		Trainees		Self-employed		Overall total	
	n	%	n	%	n	%	n	%
Bricklayers	78368	9.9%	12466	16.6%	25888	7.3%	116723	9.6%
Cavity wall tie installers	138	0.0%	17	0.0%	152	0.0%	307	0.0%
Façade maintenance/cleaning	31731	4.0%	6311	8.4%	5843	1.7%	43885	3.6%
Mason paviors	1418	0.2%	99	0.1%	297	0.1%	1814	0.1%
Stonemasons	3827	0.5%	0	0.0%	143	0.0%	3970	0.3%
Retractory engineers	375	0.0%	65	0.1%	2	0.0%	442	0.0%
<b>Total bricklayers</b>	<b>115857</b>	<b>14.6%</b>	<b>18958</b>	<b>25.2%</b>	<b>32327</b>	<b>9.1%</b>	<b>167141</b>	<b>13.7%</b>
Carpenters and joiners (benchwork)	12216	1.5%	811	1.1%	8720	2.5%	21747	1.8%
Carpenters and joiners (sitework)	105882	13.4%	18563	24.7%	30645	8.7%	155089	12.7%
Fitted interior contractors	2069	0.3%	12	0.0%	2169	0.6%	4251	0.3%
Formworkers	1963	0.2%	0	0.0%	1544	0.4%	3506	0.3%
Shopfitters	12584	1.6%	125	0.2%	11711	3.3%	24420	2.0%
Wood machinists	1106	0.1%	0	0.0%	19	0.0%	1126	0.1%
<b>Total wood trades</b>	<b>135820</b>	<b>17.1%</b>	<b>19511</b>	<b>26.0%</b>	<b>54808</b>	<b>15.5%</b>	<b>210139</b>	<b>17.2%</b>
Demountable partition erectors	54	0.0%	0	0.0%	980	0.3%	1033	0.1%
Dry liners (Finishers)	1145	0.1%	0	0.0%	934	0.3%	2079	0.2%
Dry liners (Fixers)	1455	0.2%	408	0.5%	16488	4.7%	18351	1.5%
Plasterers (Fibrous)	564	0.1%	0	0.0%	1074	0.3%	1638	0.1%
Plasterers (Solid)	10795	1.4%	287	0.4%	13174	3.7%	24255	2.0%
<b>Total partition operatives</b>	<b>14013</b>	<b>1.8%</b>	<b>695</b>	<b>0.9%</b>	<b>32649</b>	<b>9.2%</b>	<b>47357</b>	<b>3.9%</b>
Commercial painters	5163	0.7%	226	0.3%	3913	1.1%	9301	0.8%
Painters and decorators	25705	3.2%	1507	2.0%	8880	2.5%	36093	3.0%
<b>Total painters and decorators</b>	<b>30869</b>	<b>3.9%</b>	<b>1733</b>	<b>2.3%</b>	<b>12793</b>	<b>3.6%</b>	<b>45394</b>	<b>3.7%</b>
<b>Total main trades</b>	<b>296559</b>	<b>37.4%</b>	<b>40896</b>	<b>54.4%</b>	<b>132577</b>	<b>37.5%</b>	<b>470031</b>	<b>38.5%</b>
<b>Total manual</b>	<b>792100</b>	<b>100.0%</b>	<b>75118</b>	<b>100.0%</b>	<b>353508</b>	<b>100.0%</b>	<b>1220726</b>	<b>100.0%</b>

Table 3.5 Distribution of the manual workforce by occupational group: Specialist building trades

Main trades occupation	Employees		Trainees		Self-employed		Overall total	
	n	%	n	%	n	%	n	%
Built-up felt roofers	7960	1.0%	0	0.0%	6784	1.9%	14745	1.2%
Leadworker	1233	0.2%	0	0.0%	116	0.0%	1349	0.1%
Liquid applied roofers	1701	0.2%	0	0.0%	422	0.1%	2123	0.2%
Mastic asphalters	322	0.0%	12	0.0%	199	0.1%	533	0.0%
Sheeters and cladders	14171	1.8%	83	0.1%	27470	7.8%	41724	3.4%
Single ply roofers	1786	0.2%	65	0.1%	677	0.2%	2529	0.2%
Slaters and tilers	8067	1.0%	1118	1.5%	5287	1.5%	14472	1.2%
Thatchers	0	0.0%	0	0.0%	0	0.0%	0	0.0%
<b>Total roofers</b>	<b>35241</b>	<b>4.4%</b>	<b>1278</b>	<b>1.7%</b>	<b>40954</b>	<b>11.6%</b>	<b>77473</b>	<b>6.3%</b>
<b>Glaziers</b>	<b>23276</b>	<b>2.9%</b>	<b>242</b>	<b>0.3%</b>	<b>13223</b>	<b>3.7%</b>	<b>36741</b>	<b>3.0%</b>
Access flooring installers	22	0.0%	0	0.0%	143	0.0%	165	0.0%
Resin flooring installers	4887	0.6%	0	0.0%	2925	0.8%	7812	0.6%
Floorcoverers, incl. carpet fitters	1748	0.2%	25	0.0%	2242	0.6%	4015	0.3%
Wall and floor tilers	2305	0.3%	245	0.3%	2828	0.8%	5379	0.4%
<b>Total floorers</b>	<b>8963</b>	<b>1.1%</b>	<b>270</b>	<b>0.4%</b>	<b>8138</b>	<b>2.3%</b>	<b>17371</b>	<b>1.4%</b>
Ceiling fixers	3167	0.4%	92	0.1%	6075	1.7%	9334	0.8%
Chimney engineers	14173	1.8%	5843	7.8%	49	0.0%	20065	1.6%
Damproofer	2323	0.3%	0	0.0%	83	0.0%	2406	0.2%
Demolition operatives	271	0.0%	0	0.0%	718	0.2%	988	0.1%
Fire protection	2202	0.3%	220	0.3%	5765	1.6%	8187	0.7%
Steeplejacks/Lightening conductor engineers	312	0.0%	62	0.1%	12	0.0%	387	0.0%
Thermal insulation engineers	110	0.0%	0	0.0%	24	0.0%	135	0.0%
<b>Total specialist</b>	<b>22558</b>	<b>2.8%</b>	<b>6218</b>	<b>8.3%</b>	<b>12725</b>	<b>3.6%</b>	<b>41501</b>	<b>3.4%</b>
<b>Scaffolders</b>	<b>26894</b>	<b>3.4%</b>	<b>3936</b>	<b>5.2%</b>	<b>4439</b>	<b>1.3%</b>	<b>35268</b>	<b>2.9%</b>
<b>Total specialist building trades</b>	<b>116932</b>	<b>14.8%</b>	<b>11944</b>	<b>15.9%</b>	<b>79479</b>	<b>22.5%</b>	<b>208355</b>	<b>17.1%</b>
<b>Total manual</b>	<b>792100</b>	<b>100.0%</b>	<b>75118</b>	<b>100.0%</b>	<b>353508</b>	<b>100.0%</b>	<b>1220726</b>	<b>100.0%</b>

Table 3.6 Distribution of the manual workforce by occupational group: Other operatives

Main trades occupation	Employees		Trainees		Self-employed		Overall total	
	n	%	n	%	n	%	n	%
Steel erectors/riggers	1572	0.2%	51	0.1%	956	0.3%	2579	0.2%
Structural steel workers	6946	0.7%	71	0.1%	12099	3.3%	19116	1.6%
<b>Total steel workers</b>	<b>8518</b>	<b>0.8%</b>	<b>122</b>	<b>0.2%</b>	<b>13055</b>	<b>3.6%</b>	<b>21695</b>	<b>1.8%</b>
Crane drivers	3237	0.3%	223	0.3%	17	0.0%	3477	0.3%
Drilling, tunnelling and piling operatives	4953	0.5%	36	0.0%	33	0.0%	5022	0.4%
Plant mechanics	2596	0.3%	44	0.1%	242	0.1%	2882	0.2%
Slinger/Signaller/Banksman	2141	0.2%	0	0.0%	225	0.1%	2366	0.2%
Plant operators	30711	3.0%	127	0.2%	3883	1.1%	34721	2.8%
<b>Total plant operatives</b>	<b>43637</b>	<b>4.3%</b>	<b>430</b>	<b>0.5%</b>	<b>4400</b>	<b>1.2%</b>	<b>48468</b>	<b>4.0%</b>
Labourers	60077	6.0%	201	0.3%	7835	2.2%	68112	5.6%
General operatives excl. CE	4557	0.5%	131	0.2%	806	0.2%	5494	0.5%
Maintenance operatives	23034	2.3%	198	0.2%	26557	7.3%	49789	4.1%
Non-construction operatives	2641	0.3%	59	0.1%	216	0.1%	2917	0.2%
Road vehicle drivers	7204	0.7%	0	0.0%	189	0.1%	7393	0.6%
<b>Total non-construction operatives and labourers</b>	<b>97513</b>	<b>9.7%</b>	<b>589</b>	<b>0.7%</b>	<b>35603</b>	<b>9.8%</b>	<b>133705</b>	<b>11.0%</b>
Asphalters	2934	0.3%	388	0.5%	311	0.1%	3634	0.3%
Concrete drilling and sawing	1405	0.1%	0	0.0%	353	0.1%	1759	0.1%
Groundwork and site preparation	43978	4.4%	287	0.4%	12914	3.6%	57178	4.7%
Road Markers	6180	0.6%	0	0.0%	221	0.1%	6401	0.5%
Jet patchers and other	4537	0.4%	16	0.0%	36	0.0%	4590	0.4%
Public utilities distribution operatives	11397	1.1%	126	0.2%	273	0.1%	11795	1.0%
Trackworker/Railwayworkers	1695	0.2%	0	0.0%	52	0.0%	1746	0.1%
<b>Total civil engineering operatives</b>	<b>72126</b>	<b>7.2%</b>	<b>817</b>	<b>1.0%</b>	<b>14160</b>	<b>3.9%</b>	<b>87103</b>	<b>7.1%</b>
Solar panel installers	5210	0.5%	24	0.0%	364	0.1%	5598	0.5%
Energy managers	133	0.0%	0	0.0%	12	0.0%	145	0.0%
Panel wall systems installer	0	0.0%	0	0.0%	24	0.0%	24	0.0%



Green systems installer	49	0.0%	0	0.0%	12	0.0%	61	0.0%
Renewable energy installers	1846	0.2%	437	0.5%	24	0.0%	2308	0.2%
<b>Total modern methods</b>	<b>7238</b>	<b>0.7%</b>	<b>461</b>	<b>0.6%</b>	<b>437</b>	<b>0.1%</b>	<b>8136</b>	<b>0.7%</b>
<b>Total other operatives</b>	<b>229033</b>	<b>22.7%</b>	<b>2420</b>	<b>3.0%</b>	<b>67655</b>	<b>18.6%</b>	<b>299107</b>	<b>24.5%</b>
<b>Total manual</b>	<b>1008459</b>	<b>100.0%</b>	<b>79700</b>	<b>100.0%</b>	<b>363622</b>	<b>100.0%</b>	<b>1220726</b>	<b>100.0%</b>

Table 3.7 Distribution of the manual workforce by occupational group: Building services

Main trades occupation	Employees		Trainees		Self-employed		Overall total	
	n	%	n	%	n	%	n	%
Electricians	85314	10.8%	15055	20.0%	40378	11.4%	140747	11.5%
Heating and ventilating engineers	27342	3.5%	1453	1.9%	19046	5.4%	47841	3.9%
Plumbers	31410	4.0%	3032	4.0%	13732	3.9%	48174	3.9%
Refrigeration and air conditioning engineers	5511	0.7%	318	0.4%	642	0.2%	6470	0.5%
<b>Total building services</b>	<b>149578</b>	<b>18.9%</b>	<b>19858</b>	<b>26.4%</b>	<b>73797</b>	<b>20.9%</b>	<b>243233</b>	<b>19.9%</b>
<b>Total manual</b>	<b>792100</b>	<b>100.0%</b>	<b>75118</b>	<b>100.0%</b>	<b>353508</b>	<b>100.0%</b>	<b>1220726</b>	<b>100.0%</b>

Tables 3.8 - 3.11 show the numbers of the manual workforce classified into main trades, specialist building trades, other operatives and building services and grouped as above into the 18 summary groups. The percentages given here are as a proportion of their summary group.

Table 3.8 Distribution of the main trades by occupational group			
Main trades occupation	n	%	Unweighted base
Bricklayers	116723	69.8%	1146
Cavity wall tie installers	307	0.2%	15
Façade maintenance/cleaning	43885	26.3%	44
Mason paviors	1814	1.1%	110
Stonemasons	3970	2.4%	34
Retractory engineers	442	0.3%	23
<b>Total bricklayers</b>	<b>167141</b>	<b>100.0%</b>	<b>1372</b>
Carpenters and joiners (benchwork)	21747	10.3%	254
Carpenters and joiners (sitework)	155089	73.8%	1373
Fitted interior contractors	4251	2.0%	57
Formworkers	3506	1.7%	94
Shopfitters	24420	11.6%	24
Wood machinists	1126	0.5%	30
<b>Total wood trades</b>	<b>210139</b>	<b>100.0%</b>	<b>1832</b>
Demountable partition erectors	1033	2.2%	16
Dry liners (Finishers)	2079	4.4%	66
Dry liners (Fixers)	18351	38.8%	535
Plasterers (Fibrous)	1638	3.5%	67
Plasterers (Solid)	24255	51.2%	223
<b>Total partition operatives</b>	<b>47357</b>	<b>100.0%</b>	<b>907</b>
Commercial painters	9301	20.5%	403
Painters and decorators	36093	79.5%	1039
<b>Total painters and decorators</b>	<b>45394</b>	<b>100.0%</b>	<b>1442</b>

Table 3.9 Distribution of the specialist building trades by occupational group

Main trades occupation	n	%	Unweighted base
Built-up felt roofers	14745	19.0%	126
Leadworker	1349	1.7%	17
Liquid applied roofers	2123	2.7%	64
Mastic asphalters	533	0.7%	27
Sheeters and cladders	41724	53.9%	743
Single ply roofers	2529	3.3%	139
Slaters and tilers	14472	18.7%	302
Thatchers	0	0.0%	0
<b>Total roofers</b>	<b>77473</b>	<b>100.0%</b>	<b>1418</b>
<b>Glaziers</b>	<b>36741</b>	<b>100.0%</b>	<b>163</b>
Access flooring installers	165	0.9%	20
Resin flooring installers	7812	45.0%	35
Floorcoverers, incl. carpet fitters	4015	23.1%	170
Wall and floor tilers	5379	31.0%	205
<b>Total floorers</b>	<b>17371</b>	<b>100.0%</b>	<b>430</b>
Ceiling fixers	9334	22.5%	289
Chimney engineers	20065	48.3%	20
Damproofer	2406	5.8%	15
Demolition operatives	988	2.4%	125
Fire protection	8187	19.7%	319
Steeplejacks/Lightening conductor engineers	387	0.9%	23
Thermal insulation engineers	135	0.3%	8
<b>Total specialist</b>	<b>41501</b>	<b>100.0%</b>	<b>799</b>
<b>Scaffolders</b>	<b>35268</b>	<b>100.0%</b>	<b>1093</b>

Table 3.10 Distribution of the other operatives by occupational group

Main trades occupation	n	%	Unweighted base
Steel erectors/riggers	2579	11.9%	226
Structural steel workers	19116	88.1%	148
<b>Total steel workers</b>	<b>21695</b>	<b>100.0%</b>	<b>374</b>
Crane drivers	3477	7.2%	336
Drilling, tunnelling and piling operatives	5022	10.4%	260
Plant mechanics	2882	5.9%	227
Slinger/Signaller/Banksman	2366	4.9%	266
Plant operators	34721	71.6%	2085
<b>Total plant operatives</b>	<b>48468</b>	<b>100.0%</b>	<b>3174</b>
Labourers	68112	50.9%	2279
General operatives excl. CE	5494	4.1%	540
Maintenance operatives	49789	37.2%	623
Non-construction operatives	2917	2.2%	183
Road vehicle drivers	7393	5.5%	441
<b>Total non-construction operatives and labourers</b>	<b>133705</b>	<b>100.0%</b>	<b>4066</b>
Asphalters	3634	4.2%	394
Concrete drilling and sawing	1759	2.0%	90
Groundwork and site preparation	57178	65.6%	4206
Road Markers	6401	7.3%	229
Jet patchers and other	4590	5.3%	153
Public utilities distribution operatives	11795	13.5%	2518
Trackworker/ Railwayworkers	1746	2.0%	199
<b>Total civil engineering operatives</b>	<b>87103</b>	<b>100.0%</b>	<b>7853</b>
Solar panel installers	5598	68.8%	333
Energy managers	145	1.8%	8
Panel wall systems installer	24	0.3%	4
Green systems installer	61	0.7%	6
Renewable energy installers	2308	28.4%	13
<b>Total modern methods</b>	<b>8136</b>	<b>100.0%</b>	<b>364</b>

Table 3.11 Distribution of the building services by occupational group

Main trades occupation	n	%	Unweighted base
Electricians	140747	57.9%	760
Heating and ventilating engineers	47841	19.7%	217
Plumbers	48174	19.8%	245
Refrigeration and air conditioning engineers	6470	2.7%	48
<b>Total building services</b>	<b>243233</b>	<b>100.0%</b>	<b>1270</b>

### 3.4 Non-manual occupations

Table 3.12 shows the distribution of non-manual occupations in the construction industry. The largest group within non-manual occupations was made up of professionals, consisting of legal or business professionals, engineering professionals, architects, qualified quantity and chartered surveyors as well as town planners. This group made up 29 per cent of those working in non-manual occupations. Twenty-eight per cent of non-manual workers were office staff, such as those working as in administrative and clerical support occupations or sales and customer service roles. Twenty-five per cent of non-manual workers were in managerial positions – this includes general managers, contracts managers and site managers. A further 18 per cent of the non-manual workforce was made up of technicians.

Table 3.12 Distribution of the non-manual workforce by occupational group

Non-manual occupation	n	% non-manual occupations	Unweighted base
Administrative and clerical support	160868	23.9%	113
Sales and customer services	24826	3.7%	103
<b>Total office staff</b>	<b>185695</b>	<b>27.6%</b>	<b>216</b>
Site supervisors	27472	4.1%	1490
Contracts managers	32339	4.8%	1235
Site managers	45188	6.7%	1658
General managers	65069	9.7%	1814
<b>Total managers</b>	<b>170069</b>	<b>25.3%</b>	<b>6197</b>
Architectural support	98459	14.7%	489
Building inspectors	934	0.1%	59
Engineering technicians	14163	2.1%	269
Surveyors - Estimating support	7737	1.2%	412
<b>Total technicians</b>	<b>121293</b>	<b>18.1%</b>	<b>1229</b>
Legal/Business professionals and associates	11337	1.7%	94

Engineering professionals	97548	14.5%	2412
Architects	56990	8.5%	501
Surveyors, qualified quantity and chartered surveyors	25464	3.8%	1125
Town planners	3305	0.5%	201
<b>Total professionals</b>	<b>194644</b>	<b>29.0%</b>	<b>2458</b>
<b>TOTAL NON-MANUAL</b>	<b>671701</b>	<b>100.0%</b>	<b>16288</b>

Table 3.13 shows the non-manual occupational categories split by gender. In 2015 the proportion of women exceeded that of men in administrative and clerical support roles as well as in sales and customer services occupations. In administrative and clerical support roles women made up 88 per cent of the workforce in comparison to 12 per cent of men. In sales and customer services, 64 per cent of the workforce were women whilst only 36 per cent were men.

The proportion of men and women was equal amongst legal or business professionals.

Table 3.13 Non-manual occupations by gender

Non-manual occupation	Men	Women	Totals		Unwtd base
	%	%	n	%	n
Administrative and clerical support	12.4%	87.6%	160868	100.0%	2840
Sales and customer services	36.3%	63.7%	24826	100.0%	1142
<b>Total office staff</b>	<b>15.6%</b>	<b>84.4%</b>	<b>185695</b>	<b>100.0%</b>	<b>3982</b>
Site supervisors	99.3%	0.7%	27472	100.0%	1490
Contracts managers	96.9%	3.1%	32339	100.0%	1235
Site managers	99.1%	0.9%	45188	100.0%	1658
General managers	81.4%	18.6%	65069	100.0%	1814
<b>Total managers</b>	<b>92.0%</b>	<b>8.0%</b>	<b>170069</b>	<b>100.0%</b>	<b>6197</b>
Architectural support	66.7%	33.3%	98459	100.0%	489
Building inspectors	68.7%	31.3%	934	100.0%	59
Engineering technicians	89.2%	10.8%	14163	100.0%	269
Surveyors - Estimating support	93.7%	6.3%	7737	100.0%	412
<b>Total technicians</b>	<b>71.1%</b>	<b>28.9%</b>	<b>121293</b>	<b>100.0%</b>	<b>2443</b>
Legal/Business professionals and associates	50.0%	50.0%	11337	100.0%	641
Engineering professionals	90.2%	9.8%	97548	100.0%	2412
Architects	87.4%	12.6%	56990	100.0%	501

Surveyors, qualified quantity and chartered surveyors	87.6%	12.4%	25464	100.0%	1125
Town planners	77.4%	22.6%	3305	100.0%	201
<b>Total professionals</b>	<b>85.2%</b>	<b>13.1%</b>		<b>100.0%</b>	<b>4880</b>
<b>TOTAL NON-MANUAL</b>	<b>65.5%</b>	<b>34.5%</b>	<b>671701</b>	<b>100.0%</b>	<b>16288</b>

The distribution of the non-manual female workforce is presented in Table 3.14. This shows that 61 per cent of all female non-manual workers were in administrative and clerical support roles (59 per cent of the total female workforce, including manual occupations).

Table 3.14 Distribution of the female workforce

Non-manual occupation	n	% non-manual women	% women
Administrative and clerical support	140886	60.8%	59.2%
Sales and customer services	15826	6.8%	6.7%
<b>Total professionals</b>	<b>156713</b>	<b>67.6%</b>	<b>65.9%</b>
Site supervisors	190	0.1%	0.1%
Contracts managers	988	0.4%	0.4%
Site managers	389	0.2%	0.2%
General managers	12115	5.2%	5.1%
<b>Total managers</b>	<b>13683</b>	<b>5.9%</b>	<b>5.8%</b>
Architectural support	32738	14.1%	13.8%
Building inspectors	292	0.1%	0.1%
Engineering technicians	1535	0.7%	0.6%
Surveyors - Estimating support	485	0.2%	0.2%
<b>Total technicians</b>	<b>35051</b>	<b>15.1%</b>	<b>14.7%</b>
Legal/Business professionals and associates	5673	2.4%	2.4%
Engineering professionals	9540	4.1%	4.0%
Architects	7162	3.1%	3.0%
Surveyors, qualified quantity and chartered surveyors	3161	1.4%	1.3%
Town planners	25535	0.3%	0.3%
<b>Total professionals</b>	<b>51071</b>	<b>11.3%</b>	<b>11.1%</b>
<b>TOTAL NON-MANUAL</b>	<b>231728</b>	<b>100.0%</b>	<b>97.4%</b>
<b>TOTAL MANUAL WOMEN</b>	<b>6091</b>		<b>2.6%</b>
<b>TOTAL WOMEN</b>	<b>237819</b>		<b>100.0%</b>

### 3.5 Main activity of company

Companies were asked two questions about the main activity of their company and the main type of work done by the company. The two questions were:

*Which of these activities your company is **mainly** engaged in:*

- *House building;*
- *non-residential building; or*
- *civil engineering?*

*What type of work does your company **mainly** carry out:*

- *New build; or*
- *repair and maintenance?*

Table 3.15 shows the distribution of employees, trainees and the self-employed within the house building, non-residential and civil engineering sectors of the construction industry and by whether the company within that sector is mainly new build or repair and maintenance. Counts are not available for companies that specified more than one main activity or did not specify it at all.

Nearly half (49 per cent) of the workforce were working for companies which main activity was house building. A slightly lower proportion (37 per cent) were working for companies with main activity reported as non-residential building, while 14 per cent of the workforce were working for companies active mainly in civil engineering.

Thirty-eight per cent of workers were working for companies defining themselves as focusing on new build, in comparison to 62 per cent focusing on repair and maintenance.

**Table 3.15 Number of workers within different sectors of the construction industry**

	<b>House building</b>	<b>Non-residential building</b>	<b>Civil engineering</b>	<b>Total</b>
New build	298385	246570	126895	671850
Repair and maintenance	564198	404174	117690	1086061
<b>Total</b>	<b>862583</b>	<b>650744</b>	<b>244584</b>	<b>1757912</b>
New build	17.0%	14.0%	7.2%	38.2%
Repair and maintenance	32.1%	23.0%	6.7%	61.8%
<b>Total</b>	<b>49.1%</b>	<b>37.0%</b>	<b>13.9%</b>	<b>100.0%</b>



The ratio of manual and non-manual workers varied by main activity and main form of work, as shown in the table below:

**Summary: Percentage of manual and non-manual workers, by main activity and main form of work of company**

Main activity	New build		Repair and maintenance	
	% manual	% non-manual	% manual	% non-manual
House building	45.4%	54.6%	76.0%	24.0%
Non-residential building	67.1%	32.9%	67.8%	32.2%
Civil engineering	44.2%	55.8%	56.6%	43.4%

The following tables (Table 3.16 to Table 3.21) show counts of employees, trainees and the self-employed in the construction industry for each activity and whether that activity is either mainly new build or repair and maintenance. Because these tables are based on smaller sub-samples of responding companies, the unweighted base of companies is also shown underneath each table.

There was a relatively even split of manual and non-manual workers for house building and civil engineering companies involved in new build with the difference between them being less than ten percentage points. By contrast, in non-residential building companies involved in new build, 67 per cent of workers were in manual occupations in comparison to 33 working in non-manual roles.

There was also variation in companies whose main work was repair and maintenance or refurbishment. Across all three activity categories, the proportion of those working in manual occupations was higher than those in non-manual roles. Companies involved in house building had the highest proportion of manual workers (76 per cent) while those involved in civil engineering had the lowest (57 per cent).

Table 3.16 Distribution of the workforce by occupational group (House build and new build)

Survey category	Occupation	n	%
	<b>MANUAL OCCUPATIONS</b>		
1 - 6	Total bricklayers	16914	5.9%
7 - 14	Total roofers	6948	2.4%
15	Scaffolders	13026	4.5%
16 - 19	Total floorers	785	0.3%
20 - 21	Total painters and decorators	5377	1.9%
22- 26	Total partition operatives	15407	5.4%
27 - 32	Total wood trades	18522	6.4%
33 - 34	Total steel workers	247	0.1%
35	Glaziers	4222	1.5%
36 - 42	Total civil engineering operatives	10871	3.8%
43 - 47	Total plant operatives	9058	3.2%
48 - 51	Total building services	18686	6.5%
52 - 58	Total specialist	0	0.0%
59 - 64	Total modern methods	0	0.0%
77, 79, 81-83	Total non-construction operatives and labourers	15365	5.3%
	<b>TOTAL MANUAL OCCUPATIONS</b>	<b>135428</b>	<b>47.1%</b>
	<b>NON-MANUAL OCCUPATIONS</b>		
78, 84	Total office staff	26352	9.2%
68, 71, 72, 76	Total managers	30559	10.6%
66-67, 70, 74	Total technicians	63539	22.1%
65, 69, 73, 75, 80	Total professionals	31413	10.9%
	<b>TOTAL NON-MANUAL OCCUPATIONS</b>	<b>162957</b>	<b>54.6%</b>
	<b>Overall total: Manual and non-manual</b>	<b>298385</b>	<b>100.0%</b>
	<i>Unweighted base</i>	<i>7565</i>	

Table 3.17 Distribution of the workforce by occupational group (House build and repair and maintenance companies)

Survey category	Occupation	n	%
	<b>MANUAL OCCUPATIONS</b>		
1 - 6	Total bricklayers	90606	16.1%
7 - 14	Total roofers	13151	2.3%
15	Scaffolders	1643	0.3%
16 - 19	Total floorers	6248	1.1%
20 - 21	Total painters and decorators	17567	3.1%
22- 26	Total partition operatives	19989	3.5%
27 - 32	Total wood trades	95282	16.9%
33 - 34	Total steel workers	514	0.1%
35	Glaziers	12673	2.2%
36 - 42	Total civil engineering operatives	2309	0.4%
43 - 47	Total plant operatives	225	0.0%
48 - 51	Total building services	102607	18.2%
52 - 58	Total specialist	20559	3.6%
59 - 64	Total modern methods	2560	0.5%
77, 79, 81-83	Total non-construction operatives and labourers	42724	7.6%
	<b>TOTAL MANUAL OCCUPATIONS</b>	<b>428658</b>	<b>76.0%</b>
	<b>NON-MANUAL OCCUPATIONS</b>		
78, 84	Total office staff	60799	10.8%
68, 71, 72, 76	Total managers	15346	2.7%
66-67, 70, 74	Total technicians	26239	4.7%
65, 69, 73, 75, 80	Total professionals	33156	5.9%
	<b>TOTAL NON-MANUAL OCCUPATIONS</b>	<b>135540</b>	<b>24.0%</b>
	<b>Overall total: Manual and non-manual</b>	<b>564198</b>	<b>100.0%</b>
	<i>Unweighted base</i>	<i>2773</i>	

Table 3.18 Distribution of the workforce by occupational group (Non-residential and new build companies)

Survey category	Occupation	n	%
	<b>MANUAL OCCUPATIONS</b>		
1 - 6	Total bricklayers	26464	10.7%
7 - 14	Total roofers	35843	14.5%
15	Scaffolders	1155	0.5%
16 - 19	Total floorers	4636	1.9%
20 - 21	Total painters and decorators	1739	0.7%
22- 26	Total partition operatives	7776	3.2%
27 - 32	Total wood trades	2059	0.8%
33 - 34	Total steel workers	14154	5.7%
35	Glaziers	17736	7.2%
36 - 42	Total civil engineering operatives	7058	2.9%
43 - 47	Total plant operatives	4000	1.6%
48 - 51	Total building services	31690	12.9%
52 - 58	Total specialist	3632	1.5%
59 - 64	Total modern methods	88	0.0%
77, 79, 81-83	Total non-construction operatives and labourers	7410	3.0%
	<b>TOTAL MANUAL OCCUPATIONS</b>	<b>165440</b>	<b>67.1%</b>
	<b>NON-MANUAL OCCUPATIONS</b>		
78, 84	Total office staff	18466	7.5%
68, 71, 72, 76	Total managers	32554	13.2%
66-67, 70, 74	Total technicians	8335	3.4%
65, 69, 73, 75, 80	Total professionals	21777	8.8%
	<b>TOTAL NON-MANUAL OCCUPATIONS</b>	<b>81131</b>	<b>32.9%</b>
	<b>Overall total: Manual and non-manual</b>	<b>246570</b>	<b>100.0%</b>
	<i>Unweighted base</i>	<i>6374</i>	

Table 3.19 Distribution of the workforce by occupational group (Non-residential and repair and maintenance companies)

Survey category	Occupation	n	%
	<b>MANUAL OCCUPATIONS</b>		
1 - 6	Total bricklayers	24419	6.0%
7 - 14	Total roofers	21036	5.2%
15	Scaffolders	12501	3.1%
16 - 19	Total floorers	5432	1.3%
20 - 21	Total painters and decorators	12954	3.2%
22- 26	Total partition operatives	1500	0.4%
27 - 32	Total wood trades	71214	17.6%
33 - 34	Totals steel workers	809	0.2%
35	Glaziers	2072	0.5%
36 - 42	Total civil engineering operatives	2565	0.6%
43 - 47	Total plant operatives	1346	0.3%
48 - 51	Total building services	54997	13.6%
52 - 58	Total specialist	13228	3.3%
59 - 64	Total modern methods	3297	0.8%
77, 79, 81-83	Total non-construction operatives and labourers	46683	11.6%
	<b>TOTAL MANUAL OCCUPATIONS</b>	<b>274051</b>	<b>67.8%</b>
	<b>NON-MANUAL OCCUPATIONS</b>		
78, 84	Total office staff	37098	9.2%
68, 71, 72, 76	Total managers	51021	12.6%
66-67, 70, 74	Total technicians	12734	3.2%
65, 69, 73, 75, 80	Total professionals	29270	7.2%
	<b>TOTAL NON-MANUAL OCCUPATIONS</b>	<b>130123</b>	<b>32.2%</b>
	<b>Overall total: Manual and non-manual</b>	<b>404174</b>	<b>100.0%</b>
	<i>Unweighted base</i>	<i>5847</i>	

Table 3.20 Distribution of the workforce by occupational group (Engineering and new build companies)

Survey category	Occupation	n	%
	<b>MANUAL OCCUPATIONS</b>		
1 - 6	Total bricklayers	470	0.4%
7 - 14	Total roofers	185	0.1%
15	Scaffolders	255	0.2%
16 - 19	Total floorers	21	0.0%
20 - 21	Total painters and decorators	397	0.3%
22- 26	Total partition operatives	417	0.3%
27 - 32	Total wood trades	961	0.8%
33 - 34	Total steel workers	5408	4.3%
35	Glaziers	14	0.0%
36 - 42	Total civil engineering operatives	26496	20.9%
43 - 47	Total plant operatives	16096	12.7%
48 - 51	Total building services	299	0.2%
52 - 58	Total specialist	198	0.2%
59 - 64	Total modern methods	146	0.1%
77, 79, 81-83	Total non-construction operatives and labourers	4730	3.7%
	<b>TOTAL MANUAL OCCUPATIONS</b>	<b>56095</b>	<b>44.2%</b>
	<b>NON-MANUAL OCCUPATIONS</b>		
78, 84	Total office staff	17802	14.0%
68, 71, 72, 76	Total managers	12160	9.6%
66-67, 70, 74	Total technicians	2296	1.8%
65, 69, 73, 75, 80	Total professionals	38541	30.4%
	<b>TOTAL NON-MANUAL OCCUPATIONS</b>	<b>70800</b>	<b>55.8%</b>
	<b>Overall total: Manual and non-manual</b>	<b>126895</b>	<b>100.0%</b>
	<i>Unweighted base</i>	<i>6297</i>	

Table 3.21 Distribution of the workforce by occupational group (Civil engineering and repair and maintenance companies)

Survey category	Occupation	n	%
	<b>MANUAL OCCUPATIONS</b>		
1 - 6	Total bricklayers	1552	1.3%
7 - 14	Total roofers	101	0.1%
15	Scaffolders	4028	3.4%
16 - 19	Total floorers	69	0.1%
20 - 21	Total painters and decorators	528	0.4%
22- 26	Total partition operatives	180	0.2%
27 - 32	Total wood trades	1087	0.9%
33 - 34	Total steel workers	376	0.3%
35	Glaziers	9	0.0%
36 - 42	Total civil engineering operatives	34563	29.4%
43 - 47	Total plant operatives	15733	13.4%
48 - 51	Total building services	2203	1.9%
52 - 58	Total specialist	55	0.0%
59 - 64	Total modern methods	0	0.0%
77, 79, 81-83	Total non-construction operatives and labourers	6118	5.2%
	<b>TOTAL MANUAL OCCUPATIONS</b>	<b>66603</b>	<b>56.6%</b>
	<b>NON-MANUAL OCCUPATIONS</b>		
78, 84	Total office staff	9298	7.9%
68, 71, 72, 76	Total managers	14438	12.3%
66-67, 70, 74	Total technicians	7130	6.1%
65, 69, 73, 75, 80	Total professionals	20220	17.2%
	<b>TOTAL NON-MANUAL OCCUPATIONS</b>	<b>51087</b>	<b>43.4%</b>
	<b>Overall total: Manual and non-manual</b>	<b>117690</b>	<b>100.0%</b>
	<i>Unweighted base</i>	8686	

## 3.6 Staff distribution, turnover and recruitment

In 2011, three new questions were introduced to establish staff distribution, turnover and recruitment. Each organisation was asked to indicate:

- The percentage of staff who worked mainly on-site and in the office;
- the percentage of the annual turnover accounted for by on-site and by office staff;
- and the percentage of on-site and office staff recruited locally (within 25 miles of the organisation), regionally (within 75 miles of the organisation) and nationally (from elsewhere in the UK).

The number of staff was then established for each category.

Table 3.22 shows staff distribution and turnover and Table 3.23 shows the distribution of staff recruited locally, regionally and nationally.

	On site		In office		Overall total
	n	%	n	%	n
Staff distribution (% of staff mainly on site/in office)	1245720	68.4%	574800	31.6%	1820520
<i>Unweighted base</i>					39646
Turnover (% of annual turnover on site/in office)	988698	73.4%	358352	26.6%	1347051
<i>Unweighted base</i>					35016

	On site	In office	Overall total
	n	n	n
Local recruitment (<25 miles)	812124	240391	1052515
Regional recruitment (<75 miles)	87487	9291	96778
National recruitment (elsewhere in UK)	43998	4538	48536
<b>Total</b>	<b>943609</b>	<b>254219</b>	<b>1197828</b>
	%	%	%
Local recruitment (<25 miles)	67.8%	20.1%	87.9%
Regional recruitment (<75 miles)	7.3%	0.8%	8.1%
National recruitment (elsewhere in UK)	3.7%	0.4%	4.1%
<i>Unweighted base</i>	38702		



## 4 Tables

Table 4.1 Total numbers by occupational category (page 1 of 4)

Survey category	Occupation	Employees		Trainees		Self-employed		Overall total	Unwtd base
		Men	Women	Men	Women	Men	Women		
	<b>MANUAL OCCUPATIONS</b>								
1	Bricklayers	78177	192	12466	0	25877	11	116723	1146
2	Cavity wall tie installers	138	0	17	0	152	0	307	15
3	Façade maintenance/cleaning	31668	62	6311	0	5843	0	43885	44
4	Mason paviors	1418	0	99	0	297	0	1814	110
5	Stonemasons	3827	0	0	0	121	22	3970	34
6	Retractory engineers	312	62	65	0	2	0	442	23
	<b>Total bricklayers</b>	<b>115540</b>	<b>317</b>	<b>18958</b>	<b>0</b>	<b>32293</b>	<b>33</b>	<b>167141</b>	<b>1372</b>
7	Built-up felt roofers	7960	0	0	0	6784	0	14745	126
8	Leadworker	1233	0	0	0	116	0	1349	17
9	Liquid applied roofers	1701	0	0	0	422	0	2123	64
10	Mastic asphalters	322	0	12	0	199	0	533	27
11	Sheeters and cladders	14171	0	83	0	27470	0	41724	743
12	Single ply roofers	1786	0	65	0	677	0	2529	139
13	Slaters and tilers	8067	0	1118	0	5287	0	14472	302
14	Thatchers	0	0	0	0	0	0	0	0
	<b>Total roofers</b>	<b>35241</b>	<b>0</b>	<b>1278</b>	<b>0</b>	<b>40954</b>	<b>0</b>	<b>77473</b>	<b>1418</b>
15	<b>Scaffolders</b>	<b>26665</b>	<b>229</b>	<b>3936</b>	<b>0</b>	<b>4439</b>	<b>0</b>	<b>35268</b>	<b>832</b>
16	Access flooring installers	22	0	0	0	76	67	165	11
17	Resin flooring installers	4887	0	0	0	2925	0	7812	21
18	Floorcoverers	1748	0	25	0	2242	0	4015	96
19	Wall and floor tilers	2305	0	245	0	2828	0	5379	133
	<b>Total floorers</b>	<b>8963</b>	<b>0</b>	<b>270</b>	<b>0</b>	<b>8071</b>	<b>67</b>	<b>17371</b>	<b>261</b>
20	Commercial painters	5049	114	217	9	3913	0	9301	403
21	Painters and decorators	25356	349	1452	55	8880	0	36093	1039
	<b>Total painters and decorators</b>	<b>30405</b>	<b>463</b>	<b>1668</b>	<b>64</b>	<b>12793</b>	<b>0</b>	<b>45394</b>	<b>1442</b>
22	Demountable partition erectors	54	0	0	0	980	0	1033	16
23	Dry liners (Finishers)	1145	0	0	0	800	134	2079	66
24	Dry liners (Fixers)	1455	0	408	0	16219	269	18351	535
25	Plasterers (Fibrous)	564	0	0	0	1074	0	1638	67
26	Plasterers (Solid)	10795	0	286	0	13103	71	24255	223
	<b>Total partition operatives</b>	<b>14013</b>	<b>0</b>	<b>695</b>	<b>0</b>	<b>32176</b>	<b>473</b>	<b>47357</b>	<b>907</b>

Table 4.1 Total numbers by occupational category (page 2 of 4)

Survey category	Occupation	Employees		Trainees		Self-employed		Overall total	Unwtd base
		Men	Women	Men	Women	Men	Women		
27	Carpenters and joiners (benchwork)	12216	0	811	0	8720	0	21747	254
28	Carpenters and joiners (sitework)	105882	0	18487	75	30645	0	155089	1373
29	Fitted interior contractors	2069	0	12	0	2169	0	4251	57
30	Formworkers	1963	0	0	0	1473	71	3506	94
31	Shopfitters	12584	0	125	0	11711	0	24420	24
32	Wood machinists	1106	0	0	0	19	0	1126	30
	<b>Total wood trades</b>	<b>135820</b>	<b>0</b>	<b>19435</b>	<b>75</b>	<b>54737</b>	<b>71</b>	<b>210139</b>	1832
33	Steel erectors/riggers	1572	0	51	0	956	0	2579	154
34	Structural steel workers	6946	0	71	0	12099	0	19116	113
	<b>Total steel workers</b>	<b>8518</b>	<b>0</b>	<b>122</b>	<b>0</b>	<b>13055</b>	<b>0</b>	<b>21695</b>	267
35	<b>Glaziers</b>	<b>22793</b>	<b>483</b>	<b>242</b>	<b>0</b>	<b>13223</b>	<b>0</b>	<b>36741</b>	99
36	Asphalters	2934	0	388	0	311	0	3634	336
37	Concrete drilling and sawing	1405	0	0	0	353	0	1759	72
38	Groundwork and site preparation	43978	0	287	0	12914	0	57178	3405
39	Road markers	6180	0	0	0	221	0	6401	214
40	Jet patchers and other	4492	45	16	0	36	0	4590	148
41	Public utilities distribution operatives	11374	23	107	18	273	0	11795	2395
42	Trackworker/ Railwayworkers	1695	0	0	0	52	0	1746	195
	<b>Total civil engineering operatives</b>	<b>72057</b>	<b>69</b>	<b>798</b>	<b>19</b>	<b>14160</b>	<b>0</b>	<b>87103</b>	6765
43	Crane drivers	3226	11	223	0	17	0	3477	313
44	Drilling, tunnelling and piling operatives	4953	0	36	0	33	0	5022	251
45	Plant mechanics	2596	0	44	0	242	0	2882	206
46	Slinger/Signaller/Banksman	2141	0	0	0	225	0	2366	222
47	Plant operators	30681	29	127	0	3879	5	34721	1782
	<b>Total plant operatives</b>	<b>43596</b>	<b>41</b>	<b>430</b>	<b>0</b>	<b>4396</b>	<b>5</b>	<b>48468</b>	<b>2774</b>
48	Electricians	85043	272	15026	29	40365	12	140747	1772
49	Heating and ventilating engineers	27226	116	1433	20	19046	0	47841	664
50	Plumbers	31397	13	3032	0	13732	0	48174	560
51	Refrigeration and air conditioning engineers	5511	0	318	0	642	0	6470	343
	<b>Total building services</b>	<b>149177</b>	<b>401</b>	<b>19809</b>	<b>49</b>	<b>73785</b>	<b>12</b>	<b>243233</b>	<b>3339</b>

Table 4.1 Total numbers by occupational category (page 3 of 4)

Survey category	Occupation	Employees		Trainees		Self-employed		Overall total	Unwtd base
		Men	Women	Men	Women	Men	Women		
52	Ceiling fixers	3167	0	92	0	6075	0	9334	163
53	Chimney engineers	14173	0	5843	0	49	0	20065	15
54	Damproofer	2323	0	0	0	83	0	2406	9
55	Demolition operatives	271	0	0	0	718	0	988	76
56	Fire protection	2191	11	220	0	5753	11	8187	199
57	Steeplejacks/Lightening conductor engineers	312	0	62	0	12	0	387	19
58	Thermal insulation engineers	110	0	0	0	24	0	135	6
	<b>Total specialist</b>	<b>22547</b>	<b>11</b>	<b>6218</b>	<b>0</b>	<b>12714</b>	<b>11</b>	<b>41501</b>	<b>487</b>
59	Solar panel installers	5210	0	24	0	364	0	5598	304
60	Energy managers	133	0	0	0	12	0	145	7
61	Panel wall systems installer	0	0	0	0	24	0	24	2
62	Green systems installer	49	0	0	0	12	0	61	5
64	Renewable energy installers	1846	0	437	0	24	0	2308	10
	<b>Total modern methods</b>	<b>7238</b>	<b>0</b>	<b>461</b>	<b>0</b>	<b>437</b>	<b>0</b>	<b>8136</b>	<b>328</b>
77	Labourers	57781	2295	201	0	7835	0	68112	1995
79	General operatives excl. CE	4557	0	131	0	806	0	5494	455
81	Maintenance operatives	22984	50	178	20	26557	0	49789	547
82	Non-construction operatives	1909	733	20	40	216	0	2917	167
83	Road vehicle drivers	7144	60	0	0	189	0	7393	432
	<b>Total non-construction operatives and labourers</b>	<b>94375</b>	<b>3138</b>	<b>530</b>	<b>59</b>	<b>35603</b>	<b>0</b>	<b>133705</b>	<b>3596</b>
	<b>TOTAL MANUAL</b>	<b>786948</b>	<b>5152</b>	<b>74851</b>	<b>266</b>	<b>352835</b>	<b>673</b>	<b>1220726</b>	<b>25719</b>
	<b>NON-MANUAL OCCUPATIONS</b>								
65	Architects	49192	6809	72	312	565	41	56990	501
66	Architectural support	64924	32554	272	124	525	61	98459	489
67	Building inspectors	371	292	0	0	270	0	934	59
68	Contracts managers	30691	915	230	18	430	55	32339	1235
69	Engineering professionals	75266	8185	4288	711	8455	643	97548	2412
70	Engineering technicians	10876	1446	1457	89	295	0	14163	269
71	Site managers	42089	351	1478	38	1233	0	45188	1658
72	Site supervisors	25771	151	658	40	854	0	27472	1490
73	Surveyors, qualified quantity and chartered surveyors	19375	2791	2448	353	479	18	25464	1125
74	Surveyors - Estimating support	6107	401	493	85	651	0	7737	412
75	Town planners	2084	566	309	120	166	60	3305	201
	<b>Total construction professionals and technical</b>	<b>326745</b>	<b>54460</b>	<b>11706</b>	<b>1890</b>	<b>13922</b>	<b>877</b>	<b>409600</b>	<b>9851</b>

Table 4.1 Total numbers by occupational category (page 4 of 4)

Survey category	Occupation	Employees		Trainees		Self-employed		Overall total	Unwtd base
		Men	Women	Men	Women	Men	Women		
76	General managers	52167	11708	454	223	333	184	65069	1814
78	Administrative and clerical support	18242	130669	822	789	918	9428	160868	2840
80	Legal/Business professionals and associates	4404	5090	296	322	965	262	11337	641
84	Sales and customer services	8380	14433	120	1358	499	35	24826	1142
	<b>Total support staff</b>	<b>83193</b>	<b>161899</b>	<b>1692</b>	<b>2693</b>	<b>2715</b>	<b>9909</b>	<b>262101</b>	<b>6437</b>
	<b>TOTAL NON-MANUAL</b>	<b>409938</b>	<b>216359</b>	<b>13398</b>	<b>4582</b>	<b>16637</b>	<b>10787</b>	<b>671701</b>	<b>16288</b>
	<b>TOTAL MANUAL AND NON-MANUAL</b>	<b>1196886</b>	<b>221511</b>	<b>88249</b>	<b>4848</b>	<b>369473</b>	<b>11459</b>	<b>1892427</b>	<b>42007</b>

Table 4.2 Occupational category by employment status (page 1 of 4)

Survey category	Occupation	Employees		Trainees		Self-employed		Overall total		Unwtd base
		n	%	n	%	n	%	n	%	
	<b>MANUAL OCCUPATIONS</b>									
1	Bricklayers	78368	6	12466	13	25888	7	116723	6	1146
2	Cavity wall tie installers	138	0	17	0	152	0	307	0	15
3	Façade maintenance/cleaning	31731	2	6311	7	5843	2	43885	2	44
4	Mason paivors	1418	0	99	0	297	0	1814	0	110
5	Stonemasons	3827	0	0	0	143	0	3970	0	34
6	Retractory engineers	375	0	65	0	2	0	442	0	23
	<b>Total bricklayers</b>	<b>115857</b>	<b>8</b>	<b>18958</b>	<b>20</b>	<b>32327</b>	<b>8</b>	<b>167141</b>	<b>9</b>	<b>1372</b>
7	Built-up felt roofers	7960	1	0	0	6784	2	14745	1	126
8	Leadworker	1233	0	0	0	116	0	1349	0	17
9	Liquid applied roofers	1701	0	0	0	422	0	2123	0	64
10	Mastic asphalters	322	0	12	0	199	0	533	0	27
11	Sheeters and cladders	14171	1	83	0	27470	7	41724	2	743
12	Single ply roofers	1786	0	65	0	677	0	2529	0	139
13	Slaters and tilers	8067	1	1118	1	5287	1	14472	1	302
14	Thatchers	0	0	0	0	0	0	0	0	0
	<b>Total roofers</b>	<b>35241</b>	<b>2</b>	<b>1278</b>	<b>1</b>	<b>40954</b>	<b>11</b>	<b>77473</b>	<b>4</b>	<b>1418</b>
15	<b>Scaffolders</b>	<b>26894</b>	<b>2</b>	<b>3936</b>	<b>4</b>	<b>4439</b>	<b>1</b>	<b>35268</b>	<b>2</b>	<b>832</b>

Table 4.2 Occupational category by employment status (page 2 of 4)

Survey category	Occupation	Employees		Trainees		Self-employed		Overall total		Unwtd base
		n	%	n	%	n	%	n	%	
16	Access flooring installers	22	0	0	0	143	0	165	0	11
17	Resin flooring installers	4887	0	0	0	2925	1	7812	0	21
18	Floorcoverers, incl. carpet fitters	1748	0	25	0	2242	1	4015	0	96
19	Wall and floor tilers	2305	0	245	0	2828	1	5379	0	133
	<b>Total floorers</b>	<b>8963</b>	<b>1</b>	<b>270</b>	<b>0</b>	<b>8138</b>	<b>2</b>	<b>17371</b>	<b>1</b>	<b>261</b>
20	Commercial painters	5163	0	226	0	3913	1	9301	0	403
21	Painters and decorators	25705	2	1507	2	8880	2	36093	2	1039
	<b>Total painters and decorators</b>	<b>30869</b>	<b>2</b>	<b>1733</b>	<b>2</b>	<b>12793</b>	<b>3</b>	<b>45394</b>	<b>2</b>	<b>1442</b>
22	Demountable partition erectors	54	0	0	0	980	0	1033	0	16
23	Dry liners (Finishers)	1145	0	0	0	934	0	2079	0	66
24	Dry liners (Fixers)	1455	0	408	0	16488	4	18351	1	535
25	Plasterers (Fibrous)	564	0	0	0	1074	0	1638	0	67
26	Plasterers (Solid)	10795	1	287	0	13174	3	24255	1	223
	<b>Total partition operatives</b>	<b>14013</b>	<b>1</b>	<b>695</b>	<b>1</b>	<b>32649</b>	<b>9</b>	<b>47357</b>	<b>3</b>	<b>907</b>
27	Carpenters and joiners (benchwork)	12216	1	811	1	8720	2	21747	1	254
28	Carpenters and joiners (sitework)	105882	7	18563	20	30645	8	155089	8	1373
29	Fitted interior contractors	2069	0	12	0	2169	1	4251	0	57
30	Formworkers	1963	0	0	0	1544	0	3506	0	94
31	Shopfitters	12584	1	125	0	11711	3	24420	1	24
32	Wood machinists	1106	0	0	0	19	0	1126	0	30
	<b>Total wood trades</b>	<b>135820</b>	<b>10</b>	<b>19511</b>	<b>21</b>	<b>54808</b>	<b>14</b>	<b>210139</b>	<b>11</b>	<b>1832</b>
33	Steel erectors/riggers	1572	0	51	0	956	0	2579	0	154
34	Structural steel workers	6946	0	71	0	12099	3	19116	1	113
	<b>Total steel workers</b>	<b>8518</b>	<b>1</b>	<b>122</b>	<b>0</b>	<b>13055</b>	<b>3</b>	<b>21695</b>	<b>1</b>	<b>267</b>
35	<b>Glaziers</b>	<b>23276</b>	<b>2</b>	<b>242</b>	<b>0</b>	<b>13223</b>	<b>3</b>	<b>36741</b>	<b>2</b>	<b>99</b>
36	Asphalters	2934	0	388	0	311	0	3634	0	336
37	Concrete drilling and sawing	1405	0	0	0	353	0	1759	0	72
38	Groundwork and site preparation	43978	3	287	0	12914	3	57178	3	3405
39	Road markers	6180	0	0	0	221	0	6401	0	214
40	Jet patchers and other	4537	0	16	0	36	0	4590	0	148
41	Public utilities distribution operatives	11397	1	126	0	273	0	11795	1	2395
42	Trackworker/Railwayworkers	1695	0	0	0	52	0	1746	0	195
	<b>Total civil engineering operatives</b>	<b>72126</b>	<b>5</b>	<b>817</b>	<b>1</b>	<b>14160</b>	<b>4</b>	<b>87103</b>	<b>5</b>	<b>6765</b>

Table 4.2 Occupational category by employment status (page 3 of 4)

Survey category	Occupation	Employees		Trainees		Self-employed		Overall total		Unwtd base
		n	%	n	%	n	%	n	%	
43	Crane drivers	3237	0	223	0	17	0	3477	0	313
44	Drilling, tunnelling and piling operatives	4953	0	36	0	33	0	5022	0	251
45	Plant mechanics	2596	0	44	0	242	0	2882	0	206
46	Slinger/signaller/banksman	2141	0	0	0	225	0	2366	0	222
47	Plant operators	30711	2	127	0	3883	1	34721	2	1782
	<b>Total plant operatives</b>	<b>43637</b>	<b>3</b>	<b>430</b>	<b>0</b>	<b>4400</b>	<b>1</b>	<b>48468</b>	<b>3</b>	<b>2774</b>
48	Electricians	85314	6	15055	16	40378	11	140747	7	1772
49	Heating and ventilating engineers	27342	2	1453	2	19046	5	47841	3	664
50	Plumbers	31410	2	3032	3	13732	4	48174	3	560
51	Refrigeration and air conditioning engineers	5511	0	318	0	642	0	6470	0	343
	<b>Total building services</b>	<b>149578</b>	<b>11</b>	<b>19858</b>	<b>21</b>	<b>73797</b>	<b>19</b>	<b>243233</b>	<b>13</b>	<b>3339</b>
52	Ceiling fixers	3167	0	92	0	6075	2	9334	0	163
53	Chimney engineers	14173	1	5843	6	49	0	20065	1	15
54	Damproofer	2323	0	0	0	83	0	2406	0	9
55	Demolition operatives	271	0	0	0	718	0	988	0	76
56	Fire protection	2202	0	220	0	5765	2	8187	0	199
57	Steeplejacks/Lightening conductor engineers	312	0	62	0	12	0	387	0	19
58	Thermal insulation engineers	110	0	0	0	24	0	135	0	6
	<b>Total specialist</b>	<b>22558</b>	<b>2</b>	<b>6218</b>	<b>7</b>	<b>12725</b>	<b>3</b>	<b>41501</b>	<b>2</b>	<b>487</b>
59	Solar panel installers	5210	0	24	0	364	0	5598	0	304
60	Energy managers	133	0	0	0	12	0	145	0	7
61	Panel wall systems installer	0	0	0	0	24	0	24	0	2
62	Green systems installer	49	0	0	0	12	0	61	0	5
64	Renewable energy installers	1846	0	437	0	24	0	2308	0	10
	<b>Total modern methods</b>	<b>7238</b>	<b>1</b>	<b>461</b>	<b>0</b>	<b>437</b>	<b>0</b>	<b>8136</b>	<b>0</b>	<b>328</b>
77	Labourers	60077	4	201	0	7835	2	68112	4	1995
79	General operatives excl. CE	4557	0	131	0	806	0	5494	0	455
81	Maintenance operatives	23034	2	198	0	26557	7	49789	3	547
82	Non-construction operatives	2641	0	59	0	216	0	2917	0	167
83	Road vehicle drivers	7204	1	0	0	189	0	7393	0	432
	<b>Total other manual and non-construction operatives</b>	<b>97513</b>	<b>7</b>	<b>589</b>	<b>1</b>	<b>35603</b>	<b>9</b>	<b>133705</b>	<b>7</b>	<b>3596</b>
	<b>TOTAL MANUAL OCCUPATIONS</b>	<b>792100</b>	<b>56</b>	<b>75118</b>	<b>81</b>	<b>353508</b>	<b>93</b>	<b>1220726</b>	<b>65</b>	<b>25719</b>

Table 4.2 Occupational category by employment status (page 4 of 4)

Survey category	Occupation	Employees		Trainees		Self-employed		Overall total		Unwtd base
		n	%	n	%	n	%	n	%	
	<b>NON-MANUAL OCCUPATIONS</b>									
65	Architects	56000	4	384	0	606	0	56990	3	501
66	Architectural support	97478	7	395	0	586	0	98459	5	489
67	Building inspectors	663	0	0	0	270	0	934	0	59
68	Contracts managers	31606	2	248	0	485	0	32339	2	1235
69	Engineering professionals	83451	6	4999	5	9098	2	97548	5	2412
70	Engineering technicians	12322	1	1546	2	295	0	14163	1	269
71	Site managers	42440	3	1516	2	1233	0	45188	2	1658
72	Site supervisors	25921	2	697	1	854	0	27472	1	1490
73	Surveyors, qualified quantity and chartered surveyors	22166	2	2801	3	496	0	25464	1	1125
74	Surveyors - Estimating support	6508	0	578	1	651	0	7737	0	412
75	Town planners	2650	0	430	0	225	0	3305	0	201
	<b>Total construction professionals and technical</b>	<b>381205</b>	<b>27</b>	<b>13595</b>	<b>15</b>	<b>14799</b>	<b>4</b>	<b>409600</b>	<b>22</b>	<b>9851</b>
76	General managers	63874	5	678	1	517	0	65069	3	1814
78	Administrative and clerical support	148911	10	1611	2	10346	3	160868	9	2840
80	Legal/Business professionals and associates	9493	1	618	1	1226	0	11337	1	641
84	Sales and customer services	22813	2	1478	2	535	0	24826	1	1142
	<b>Total support staff - non-manual</b>	<b>245092</b>	<b>17</b>	<b>4385</b>	<b>5</b>	<b>12625</b>	<b>3</b>	<b>262101</b>	<b>14</b>	<b>6437</b>
	<b>TOTAL NON-MANUAL OCCUPATIONS</b>	<b>626297</b>	<b>44</b>	<b>17980</b>	<b>19</b>	<b>27424</b>	<b>7</b>	<b>671701</b>	<b>35</b>	<b>16288</b>
	<b>Overall total: Manual and non-manual</b>	<b>1418397</b>	<b>100</b>	<b>93098</b>	<b>100</b>	<b>380932</b>	<b>100</b>	<b>1892427</b>	<b>100</b>	<b>42007</b>
	<i>Unweighted base</i>	<i>32830</i>		<i>2180</i>		<i>6997</i>		<i>42007</i>		

Table 4.3 Occupational category by gender (page 1 of 4)

Survey category	Occupation	Men			Women			Overall total		Unwtd base
		n	% of men	% of all	n	% of men	% of all	n	% of all	
	<b>MANUAL OCCUPATIONS</b>									
1	Bricklayers	78368	6	12466	13	25888	7	116723	6	1146
2	Cavity wall tie installers	138	0	17	0	152	0	307	0	15
3	Façade maintenance/Cleaning	31731	2	6311	7	5843	2	43885	2	44
4	Mason paviors	1418	0	99	0	297	0	1814	0	110
5	Stonemasons	3827	0	0	0	143	0	3970	0	34
6	Retractory engineers	375	0	65	0	2	0	442	0	23
	<b>Total bricklayers</b>	<b>115857</b>	<b>8</b>	<b>18958</b>	<b>20</b>	<b>32327</b>	<b>8</b>	<b>167141</b>	<b>9</b>	<b>1372</b>
7	Built-up felt roofers	7960	1	0	0	6784	2	14745	1	126
8	Leadworker	1233	0	0	0	116	0	1349	0	17
9	Liquid applied roofers	1701	0	0	0	422	0	2123	0	64
10	Mastic asphalters	322	0	12	0	199	0	533	0	27
11	Sheeters and cladders	14171	1	83	0	27470	7	41724	2	743
12	Single ply roofers	1786	0	65	0	677	0	2529	0	139
13	Slaters and tilers	8067	1	1118	1	5287	1	14472	1	302
14	Thatchers	0	0	0	0	0	0	0	0	0
	<b>Total roofers</b>	<b>35241</b>	<b>2</b>	<b>1278</b>	<b>1</b>	<b>40954</b>	<b>11</b>	<b>77473</b>	<b>4</b>	<b>1418</b>
15	<b>Scaffolders</b>	<b>26894</b>	<b>2</b>	<b>3936</b>	<b>4</b>	<b>4439</b>	<b>1</b>	<b>35268</b>	<b>2</b>	<b>832</b>
16	Access flooring installers	22	0	0	0	143	0	165	0	11
17	Resin flooring installers	4887	0	0	0	2925	1	7812	0	21
18	Floorcoverers, incl. carpet fitters	1748	0	25	0	2242	1	4015	0	96
19	Wall and floor tilers	2305	0	245	0	2828	1	5379	0	133
	<b>Total floorers</b>	<b>8963</b>	<b>1</b>	<b>270</b>	<b>0</b>	<b>8138</b>	<b>2</b>	<b>17371</b>	<b>1</b>	<b>261</b>
20	Commercial painters	5163	0	226	0	3913	1	9301	0	403
21	Painters and decorators	25705	2	1507	2	8880	2	36093	2	1039
	<b>Total painters and decorators</b>	<b>30869</b>	<b>2</b>	<b>1733</b>	<b>2</b>	<b>12793</b>	<b>3</b>	<b>45394</b>	<b>2</b>	<b>1442</b>
22	Demountable partition erectors	54	0	0	0	980	0	1033	0	16
23	Dry liners (Finishers)	1145	0	0	0	934	0	2079	0	66
24	Dry liners (Fixers)	1455	0	408	0	16488	4	18351	1	535
25	Plasterers (Fibrous)	564	0	0	0	1074	0	1638	0	67
26	Plasterers (Solid)	10795	1	287	0	13174	3	24255	1	223
	<b>Total partition operatives</b>	<b>14013</b>	<b>1</b>	<b>695</b>	<b>1</b>	<b>32649</b>	<b>9</b>	<b>47357</b>	<b>3</b>	<b>907</b>



Table 4.3 Occupational category by gender (page 2 of 4)

Survey category	Occupation	Men			Women			Overall total		Unwtd base
		n	% of men	% of all	n	% of men	% of all	n	% of all	
27	Carpenters and joiners (benchwork)	12216	1	811	1	8720	2	21747	1	254
28	Carpenters and joiners (sitework)	105882	7	18563	20	30645	8	155089	8	1373
29	Fitted interior contractors	2069	0	12	0	2169	1	4251	0	57
30	Formworkers	1963	0	0	0	1544	0	3506	0	94
31	Shopfitters	12584	1	125	0	11711	3	24420	1	24
32	Wood machinists	1106	0	0	0	19	0	1126	0	30
	<b>Total wood trades</b>	<b>135820</b>	<b>10</b>	<b>19511</b>	<b>21</b>	<b>54808</b>	<b>14</b>	<b>210139</b>	<b>11</b>	<b>1832</b>
33	Steel erectors/Riggers	1572	0	51	0	956	0	2579	0	154
34	Structural steel workers	6946	0	71	0	12099	3	19116	1	113
	<b>Total steel workers</b>	<b>8518</b>	<b>1</b>	<b>122</b>	<b>0</b>	<b>13055</b>	<b>3</b>	<b>21695</b>	<b>1</b>	<b>267</b>
35	<b>Glaziers</b>	<b>23276</b>	<b>2</b>	<b>242</b>	<b>0</b>	<b>13223</b>	<b>3</b>	<b>36741</b>	<b>2</b>	<b>99</b>
36	Asphalters	2934	0	388	0	311	0	3634	0	336
37	Concrete drilling and sawing	1405	0	0	0	353	0	1759	0	72
38	Groundwork and site preparation	43978	3	287	0	12914	3	57178	3	3405
39	Road markers	6180	0	0	0	221	0	6401	0	214
40	Jet patchers and other	4537	0	16	0	36	0	4590	0	148
41	Public utilities distribution operatives	11397	1	126	0	273	0	11795	1	2395
42	Trackworker/ Railwayworkers	1695	0	0	0	52	0	1746	0	195
	<b>Total civil engineering operatives</b>	<b>72126</b>	<b>5</b>	<b>817</b>	<b>1</b>	<b>14160</b>	<b>4</b>	<b>87103</b>	<b>5</b>	<b>6765</b>
43	Crane drivers	3237	0	223	0	17	0	3477	0	313
44	Drilling, tunnelling and piling operatives	4953	0	36	0	33	0	5022	0	251
45	Plant mechanics	2596	0	44	0	242	0	2882	0	206
46	Slinger/Signaller/Banksman	2141	0	0	0	225	0	2366	0	222
47	Plant operators	30711	2	127	0	3883	1	34721	2	1782
	<b>Total plant operatives</b>	<b>43637</b>	<b>3</b>	<b>430</b>	<b>0</b>	<b>4400</b>	<b>1</b>	<b>48468</b>	<b>3</b>	<b>2774</b>
48	Electricians	85314	6	15055	16	40378	11	140747	7	1772
49	Heating and ventilating engineers	27342	2	1453	2	19046	5	47841	3	664
50	Plumbers	31410	2	3032	3	13732	4	48174	3	560
51	Refrigeration and air conditioning engineers	5511	0	318	0	642	0	6470	0	343
	<b>Total building services</b>	<b>149578</b>	<b>11</b>	<b>19858</b>	<b>21</b>	<b>73797</b>	<b>19</b>	<b>243233</b>	<b>13</b>	<b>3339</b>

Table 4.3 Occupational category by gender (page 3 of 4)

Survey category	Occupation	Men			Women			Overall total		Unwtd base
		n	% of men	% of all	n	% of men	% of all	n	% of all	
52	Ceiling fixers	3167	0	92	0	6075	2	9334	0	163
53	Chimney engineers	14173	1	5843	6	49	0	20065	1	15
54	Damproofer	2323	0	0	0	83	0	2406	0	9
55	Demolition operatives	271	0	0	0	718	0	988	0	76
56	Fire protection	2202	0	220	0	5765	2	8187	0	199
57	Steeplejacks/Lightening conductor engineers	312	0	62	0	12	0	387	0	19
58	Thermal insulation engineers	110	0	0	0	24	0	135	0	6
	<b>Total specialist</b>	<b>22558</b>	<b>2</b>	<b>6218</b>	<b>7</b>	<b>12725</b>	<b>3</b>	<b>41501</b>	<b>2</b>	<b>487</b>
59	Solar panel installers	5210	0	24	0	364	0	5598	0	304
60	Energy managers	133	0	0	0	12	0	145	0	7
61	Panel wall systems installer	0	0	0	0	24	0	24	0	2
62	Green systems installer	49	0	0	0	12	0	61	0	5
64	Renewable energy installers	1846	0	437	0	24	0	2308	0	10
	<b>Total modern methods</b>	<b>7238</b>	<b>1</b>	<b>461</b>	<b>0</b>	<b>437</b>	<b>0</b>	<b>8136</b>	<b>0</b>	<b>328</b>
77	Labourers	60077	4	201	0	7835	2	68112	4	1995
79	General operatives excl. CE	4557	0	131	0	806	0	5494	0	455
81	Maintenance operatives	23034	2	198	0	26557	7	49789	3	547
82	Non-construction operatives	2641	0	59	0	216	0	2917	0	167
83	Road vehicle drivers	7204	1	0	0	189	0	7393	0	432
	<b>Total other manual and non-construction operatives</b>	<b>97513</b>	<b>7</b>	<b>589</b>	<b>1</b>	<b>35603</b>	<b>9</b>	<b>133705</b>	<b>7</b>	<b>3596</b>
	<b>TOTAL MANUAL OCCUPATIONS</b>	<b>792100</b>	<b>56</b>	<b>75118</b>	<b>81</b>	<b>353508</b>	<b>93</b>	<b>1220726</b>	<b>65</b>	<b>25719</b>

Table 4.3 Occupational category by gender (page 4 of 4)

Survey category	Occupation	Men			Women			Overall total		Unwtd base
		n	% of men	% of all	n	% of men	% of all	n	% of all	
	<b>NON-MANUAL OCCUPATIONS</b>									
65	Architects	56000	4	384	0	606	0	56990	3	501
66	Architectural support	97478	7	395	0	586	0	98459	5	489
67	Building inspectors	663	0	0	0	270	0	934	0	59
68	Contracts managers	31606	2	248	0	485	0	32339	2	1235
69	Engineering professionals	83451	6	4999	5	9098	2	97548	5	2412
70	Engineering technicians	12322	1	1546	2	295	0	14163	1	269
71	Site managers	42440	3	1516	2	1233	0	45188	2	1658
72	Site supervisors	25921	2	697	1	854	0	27472	1	1490
73	Surveyors, qualified quantity and chartered surveyors	22166	2	2801	3	496	0	25464	1	1125
74	Surveyors - Estimating support	6508	0	578	1	651	0	7737	0	412
75	Town planners	2650	0	430	0	225	0	3305	0	201
	<b>Total construction professionals and technical</b>	<b>381205</b>	<b>27</b>	<b>13595</b>	<b>15</b>	<b>14799</b>	<b>4</b>	<b>409600</b>	<b>22</b>	<b>9851</b>
76	General managers	63874	5	678	1	517	0	65069	3	1814
78	Administrative and clerical support	148911	10	1611	2	10346	3	160868	9	2840
80	Legal/Business professionals and associates	9493	1	618	1	1226	0	11337	1	641
84	Sales and customer services	22813	2	1478	2	535	0	24826	1	1142
	<b>Total support staff - non-manual</b>	<b>245092</b>	<b>17</b>	<b>4385</b>	<b>5</b>	<b>12625</b>	<b>3</b>	<b>262101</b>	<b>14</b>	<b>6437</b>
	<b>TOTAL NON-MANUAL OCCUPATIONS</b>	<b>626297</b>	<b>44</b>	<b>17980</b>	<b>19</b>	<b>27424</b>	<b>7</b>	<b>671701</b>	<b>35</b>	<b>16288</b>
	<b>Overall total: Manual and non-manual</b>	<b>1418397</b>	<b>100</b>	<b>93098</b>	<b>100</b>	<b>380932</b>	<b>100</b>	<b>1892427</b>	<b>100</b>	<b>42007</b>
	<i>Unweighted base</i>	32830		2180		6997		42007		

Table 4.4 Employment status by gender (page 1 of 2)

Employment status	Men	Women	Total	Unweighted base
<b>All occupations</b>	<b>Number</b>			
Employees	1196886	221511	1418397	32830
Trainees	88249	4848	93098	2180
Self-employed	369473	11459	380932	6997
<b>Overall total: Manual and non-manual</b>	<b>1654608</b>	<b>237819</b>	<b>1892427</b>	<b>42007</b>
<b>Manual occupations</b>				
Employees	786948	5152	792100	18364
Trainees	74851	266	75118	1415
Self-employed	352835	673	353508	5940
<b>Total manual occupations</b>	<b>1214635</b>	<b>6091</b>	<b>1220726</b>	<b>25719</b>
<b>Non-manual occupations</b>				
Employees	409938	216359	626297	14466
Trainees	13398	4582	17980	765
Self-employed	16637	10787	27424	1057
<b>Total non-manual occupations</b>	<b>439973</b>	<b>231728</b>	<b>671701</b>	<b>16288</b>
	<b>Row percentages</b>			
<b>All occupations</b>				
Employees	72%	93%	75%	32830
Trainees	5%	2%	5%	2180
Self-employed	22%	5%	20%	6997
<b>Overall total: Manual &amp; non-manual</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>42007</b>
<i>Unweighted base</i>	37451	4556	42007	
<b>Manual occupations</b>				
Employees	65%	85%	65%	18364
Trainees	6%	4%	6%	1415
Self-employed	29%	11%	29%	5940
<b>Total manual occupations</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>25719</b>
<i>Unweighted base</i>	21994	129	22123	
<b>Non-manual occupations</b>				
Employees	93%	93%	93%	14466
Trainees	3%	2%	3%	765
Self-employed	4%	5%	4%	1057
<b>Total non-manual occupations</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>16288</b>
<i>Unweighted base</i>	11938	4350	16288	

Table 4.4 Employment status by gender (page 2 of 2)

Employment status	Men	Women	Total	Unweighted base
	<b>Row percentages</b>			
<b>All occupations</b>				
Employees	84%	16%	100%	32830
Trainees	95%	5%	100%	2180
Self-employed	97%	3%	100%	6997
<b>Overall total: Manual &amp; non-manual</b>	<b>87%</b>	<b>13%</b>	<b>100%</b>	<b>42007</b>
<i>Unweighted base</i>	<i>1654608</i>	<i>237819</i>	<i>1892427</i>	
<b>Manual occupations</b>				
Employees	99%	1%	100%	18364
Trainees	100%	0%	100%	1415
Self-employed	100%	0%	100%	5940
<b>Total manual occupations</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>	<b>25719</b>
<i>Unweighted base</i>	<i>1214635</i>	<i>6091</i>	<i>1220726</i>	
<b>Non-manual occupations</b>				
Employees	65%	35%	100%	14466
Trainees	75%	25%	100%	765
Self-employed	61%	39%	100%	1057
<b>Total non-manual occupations</b>	<b>66%</b>	<b>34%</b>	<b>100%</b>	<b>16288</b>
<i>Unweighted base</i>	<i>439973</i>	<i>231728</i>	<i>671701</i>	

Table 4.5 Occupational category by employment status

Survey category	Occupation	Employees	Trainees	Self-employed	Overall total	Unwtd base	
	<b>MANUAL OCCUPATIONS</b>						
1 - 6	Total bricklayers	69%	11%	19%	100%	167141	1372
7 - 14	Total roofers	45%	2%	53%	100%	77473	1418
15	Scaffolders	76%	11%	13%	100%	35268	832
16 - 19	Total floorers	52%	2%	47%	100%	17371	261
20 - 21	Total painters and decorators	68%	4%	28%	100%	45394	1442
22- 26	Total partition operatives	30%	1%	69%	100%	47357	907
27 - 32	Total wood trades	65%	9%	26%	100%	210139	1832
33 - 34	Total steel workers	39%	1%	60%	100%	21695	267
35	Glaziers	63%	1%	36%	100%	36741	99
36 - 42	Total civil engineering operatives	83%	1%	16%	100%	87103	6765
43 - 47	Total plant operatives	90%	1%	9%	100%	48468	2774
48 - 51	Total building services	61%	8%	30%	100%	243233	3339
52 - 58	Total specialist	54%	15%	31%	100%	41501	487
59 - 64	Total modern methods	89%	6%	5%	100%	8136	328
77, 79, 81-83	Total non-construction operatives and labourers	73%	0%	27%	100%	133705	3596
	<b>TOTAL MANUAL OCCUPATIONS</b>	<b>65%</b>	<b>6%</b>	<b>29%</b>	<b>100%</b>	<b>1220726</b>	<b>25719</b>
	<b>NON-MANUAL OCCUPATIONS</b>						
65 - 75	Total construction professionals and technical	93%	3%	4%	100%	617827	28057
76, 78, 80, 84	Total support staff	94%	2%	5%	100%	404928	28044
	<b>TOTAL NON-MANUAL OCCUPATIONS</b>	<b>93%</b>	<b>3%</b>	<b>4%</b>	<b>100%</b>	<b>1022755</b>	<b>56101</b>
	Overall total: Manual and non-manual	75%	5%	20%	100%	1892427	42007

Table 4.6 Gender by occupation

Survey category	Occupation	Male	Female	Overall total		Unwtd base
	<b>MANUAL OCCUPATIONS</b>	<b>% manual</b>	<b>% manual</b>			
1 - 6	Total bricklayers	13.9%	0.0%	14.0%	112501	1658
7 - 14	Total roofers	7.2%	0.0%	7.2%	57826	992
15	Scaffolders	2.4%	0.0%	2.4%	19149	1833
16 - 19	Total floorers	2.9%	0.1%	2.9%	23596	469
20 - 21	Total painters and decorators	9.4%	0.3%	9.7%	78118	1762
22- 26	Total partition operatives	3.5%	0.0%	3.5%	28028	699
27 - 32	Total wood trades	15.4%	0.0%	15.4%	124292	3060
33 - 34	Total steel workers	1.2%	0.0%	1.2%	9986	813
35	Glaziers	2.8%	0.0%	2.8%	22962	149
36 - 42	Total civil engineering operatives	5.8%	0.0%	5.8%	46543	5597
43 - 47	Total plant operatives	4.4%	0.1%	4.5%	36100	2445
48 - 51	Total building services	26.9%	0.2%	27.1%	218653	7231
52 - 58	Total specialist	2.1%	0.0%	2.1%	17135	1120
59 - 64	Total modern methods	1.4%	0.0%	1.4%	11427	63
77, 79, 81-83	Total labourers and non-construction operatives	17.2%	3.3%	20.5%	165677	15211
	<b>TOTAL MANUAL</b>	<b>99.2%</b>	<b>0.8%</b>	<b>100.0%</b>	<b>971991</b>	<b>43102</b>
	<b>NON-MANUAL OCCUPATIONS</b>	<b>% non-manual</b>	<b>% non-manual</b>			
65 - 75	Total construction professionals and technical	53.7%	6.7%	60.4%	1433663	1433663
76, 78, 80, 84	Total support staff	21.6%	18.0%	39.6%	1270191	1270191
	<b>TOTAL NON-MANUAL</b>	<b>75.3%</b>	<b>24.7%</b>	<b>100.0%</b>	<b>1022755</b>	<b>56101</b>
	<b>TOTAL: MANUAL AND NON-MANUAL</b>	<b>86.4%</b>	<b>13.6%</b>	<b>100.0%</b>	<b>1994746</b>	<b>99203</b>

## 5 Time series analysis

This is the fifth wave of the survey in the series, which will have covered a period of around 17 years. Putting the key results from the 2015 survey in the context of those from earlier waves sheds some light on what changes have taken place in the size and structure of the industry workforce.

### 5.1 Manual and non-manual occupations 1998-2015

Table 5.1 shows the distribution of manual and non-manual occupations across each survey year. Since the first wave of the survey in 1998 the proportion of non-manual occupations has increased. The 2011 saw the record number of workers in non-manual occupations (51 per cent) exceeding those in the manual categories (49 per cent) for the first time. However, in 2015 those in non-manual occupations formed just over a third of the whole workforce (35 per cent).

Table 5.1 Manual and non-manual occupations 1998-2015

Occupation	1998		2001		2005		2011		2015	
	n	%	n	%	n	%	n	%	n	%
Manual	504453	76.2	614632	75.7	1300586	77.6	971991	48.7	1220726	65.4
Non-manual	157191	23.8	196901	24.3	376252	22.4	1022755	51.3	671701	35.5
<b>Total</b>	<b>661644</b>	<b>100.0</b>	<b>811533</b>	<b>100.0</b>	<b>1 676838</b>	<b>100.0</b>	<b>1994746</b>	<b>100.0</b>	<b>1892427</b>	<b>100.0</b>
<i>Unwtd base</i>	44961		47334		87800		99203		42007	

### 5.2 Employment status of the workforce 1998-2015

Table 5.2, Table 5.3 and Table 5.4 show the employment status of the workforce from 1998 until 2015. The overall proportion of employees in the workforce has slightly increased across the five survey years. This employment status category formed 69 per cent of the total workforce in 1998. This figure dropped to 61 per cent in 2005, and has climbed up to 78 per cent in 2011 and 76 per cent in 2015. In comparison, the numbers of self-employed have shown a slight decrease. Whereas the self-employed people formed 27 per cent of the workforce in 1998 and 28 per cent in 2001, the proportion has since decreased to 15 per cent in 2011 and 20 per cent in 2015. The proportion of trainees has remained fairly consistent across the 17 years and five waves of the survey.



Table 5.2 Employment status of the workforce 1998-2015

Occupation	1998		2001		2005		2011		2015	
	n	%	n	%	n	%	n	%	n	%
Employees	458226	69	548886	68	1030065	61	1551384	78	1418397	75
Trainees	28026	4	39316	5	85041	5	152144	8	93098	5
Self-employed	175352	27	223331	28	561732	33	291217	15	380932	20
<b>Total</b>	<b>661604</b>	<b>100</b>	<b>811533</b>	<b>100</b>	<b>1676838</b>	<b>100</b>	<b>1994746</b>	<b>100</b>	<b>1892427</b>	<b>100</b>
<i>Unwtd base</i>	44961		47334		87800		99203		42007	

As Table 5.3 and Table 5.4 show, the increase in numbers of employees has come mostly from those in the manual workforce. Whilst in 1998 62 per cent and in 2001 60 per cent of those in manual occupations were employees, the same proportion in 2011 was 70 per cent and in 2015 66 per cent.

Table 5.3 Employment status of the manual workforce 1998-2015

Occupation	1998		2001		2005		2011		2015	
	n	%	n	%	n	%	n	%	n	%
Employees	313207	62	371011	60	690923	53	682354	70	792100	66
Trainees	25224	5	35092	6	78071	6	51192	5	75118	6
Self-employed	166022	33	208529	34	531593	41	238444	25	353508	28
<b>Total</b>	<b>504453</b>	<b>100</b>	<b>614632</b>	<b>100</b>	<b>1300586</b>	<b>100</b>	<b>971991</b>	<b>100</b>	<b>1220726</b>	<b>100</b>
<i>Unwtd base</i>	30675				59732		43102		25719	

Table 5.4 Employment status of the non-manual workforce 1998-2015

Occupation	1998		2001		2005		2011		2015	
	n	%	n	%	n	%	n	%	n	%
Employees	145059	92	177874	90	339143	90	869030	85	626297	93
Trainees	2802	2	4223	2	6970	2	100952	10	17980	3
Self-employed	9330	6	14804	8	30139	8	52773	5	27424	4
<b>Total</b>	<b>157191</b>	<b>100</b>	<b>196901</b>	<b>100</b>	<b>376252</b>	<b>100</b>	<b>1022755</b>	<b>100</b>	<b>671701</b>	<b>100</b>
<i>Unwtd base</i>	14286		196901		28068		56101		16288	

## 5.3 Gender distribution of workforce 1998-2015

Table 5.5 shows the gender distribution overall across the five survey years. As can be seen, the proportion of women in the construction industry has increased from 2005 onwards peaking at 14.3 per cent of the total workforce in 2011.

Table 5.5 Gender distribution of workforce 1998-2015

Occupation	1998		2001		2005		2011		2015	
	n	%	n	%	n	%	n	%	n	%
Male	616761	93.2	758706	93.5	1561408	93.1	1709194	85.7	1654608	87.4
Female	44883	6.8	52827	6.5	115430	6.9	285552	14.3	237819	12.6
<b>Total</b>	<b>661644</b>	<b>100.0</b>	<b>811533</b>	<b>100.0</b>	<b>1676838</b>	<b>100.0</b>	<b>1994746</b>	<b>100.0</b>	<b>1892427</b>	<b>100.0</b>
<i>Unwtd base</i>	44961		47334		87800		99203		42007	

Table 5.6 and Table 5.7 show the distribution of male and female workforce across manual and non-manual occupations. The proportion of female workers in non-manual occupations has remained consistently higher than in manual occupations.

Table 5.6 Gender distribution of manual workforce 1998-2015

Occupation	1998		2001		2005		2011		2015	
	n	%	n	%	n	%	n	%	n	%
Male	502235	99.6	612543	99.7	1287301	99.0	938753	96.6	1654608	99.5
Female	2218	0.4	2089	0.3	13285	1.0	33238	3.4	237819	0.5
<b>Total</b>	<b>504453</b>	<b>100</b>	<b>614632</b>	<b>100</b>	<b>1300586</b>	<b>100</b>	<b>971991</b>	<b>100</b>	<b>1892427</b>	<b>100</b>
<i>Unwtd base</i>	30675		31769		59732		43102		37548	

Table 5.7 Gender distribution of non-manual workforce 1998-2015

Occupation	1998		2001		2005		2011		2015	
	n	%	n	%	n	%	n	%	n	%
Male	114526	73	146165	74.2	274107	72.9	770441	75.3	439973	65.5
Female	42665	27	50736	25.8	102145	27.1	252315	24.7	231728	34.5
<b>Total</b>	<b>157191</b>	<b>100</b>	<b>614632</b>	<b>100</b>	<b>376252</b>	<b>100</b>	<b>1022755</b>	<b>100</b>	<b>671701</b>	<b>100</b>
<i>Unwtd base</i>	14286		15565		28068		56101		4558	

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## 6 Technical details

### 6.1 Sample selection

The key objective of the survey sample was that it should be representative of the construction industry as defined by the Construction Industry Sector Skills Council (SSC) footprint. The SSC footprint is defined in terms of the Standard Industrial Classification (SIC 2007) and specifically includes categories SIC 41, SIC 42, SIC 43, SIC 71 and SIC 74

We note that the footprint is not inclusive of all sub-divisions of the major two-digit categories listed above. For example, SIC group 71.12 includes three sub-divisions, 71.12.1, 71.12.2 and 71.12.9, however, the first of these 7.12.1 Engineering design activities for industrial process and production is not covered by the ConstructionSkills footprint.

#### 6.1.1 Coverage of sectors in the construction industry

To meet the requirements described above, the coverage of this survey needed to be adequately representative of companies from all sectors of the industry.

Previous surveys were conducted in 2011, 2005, 2001 and 1998. The 1998 and 2001 surveys used the ConstructionSkills registers as the sampling frame (supplemented by some databases covering specific sectors). In 2005 the registers were used in conjunction with the CISTATS database held by the then DTI.

As was done on the previous wave of the study in 2011, the 2015 sample was drawn from the Inter-Departmental Business Register (IDBR). This is recognised as the most comprehensive and accurate database of businesses in the UK, covering over 2 million records.

Altogether 4,000 companies were selected from the population defined below. This was to be split into 3,000 companies for the main sample and a smaller reserve sample of 1,000 companies. The reserve was only to be used if the response rate was low.

Companies with the following SIC codes were included:

- **SIC 41 Construction of buildings**
  - 41.1 Development of building projects
    - 41.10 Development of building projects
  - 41.2 Construction of residential and non-residential buildings
    - 41.20 Construction of residential and non-residential buildings
    - 41.20/1 Construction of commercial buildings
    - 41.20/2 Construction of domestic buildings
- **SIC 42 Civil engineering**
  - 42.1 Construction of roads and railways
    - 42.11 Construction of roads and motorways
    - 42.12 Construction of railways and underground railways
    - 42.13 Construction of bridges and tunnels
  - 42.2 Construction of utility projects
    - 42.21 Construction of utility projects for fluids
    - 42.22 Construction of utility projects for electricity and telecommunications

- 42.9 Construction of other civil engineering projects
  - 42.91 Construction of water projects
  - 42.99 Construction of other civil engineering projects n.e.c.
- **SIC 43 Specialised construction activities**
  - 43.1 Demolition and site preparation
    - 43.11 Demolition
    - 43.12 Site preparation
    - 43.13 Test drilling and boring
    - 43.29 Other construction installation
  - 43.2 Electrical, plumbing and other construction installation activities
    - 43.21 Electrical installation
    - 43.22 Plumbing, heat and air-conditioning installation
  - 43.3 Building completion and finishing
    - 43.31 Plastering
    - 43.32 Joinery installation
    - 43.33 Floor and wall covering
    - 43.34 Painting and glazing
    - 43.34/1 Painting
    - 43.34/2 Glazing
    - 43.39 Other building completion and finishing
  - 43.9 Other specialised construction activities
    - 43.91 Roofing activities
    - 43.99 Other specialised construction activities n.e.c.
    - 43.99/1 Scaffold erection
    - 43.99/9 Specialised construction activities (other than scaffold erection) n.e.c.)
- **SIC 71 Architectural and engineering activities; technical testing and analysis**
  - 71.1 Architectural and engineering activities; technical testing and analysis
    - 71.11 Architectural activities
      - 71.11/1 Architectural activities
      - 71.11/2 Urban planning and landscape architectural activities
    - 71.12 Engineering activities and related technical consultancy
      - 71.12/2 Engineering related scientific and technical consulting activities
      - 71.12/9 Other engineering activities (not including engineering design for industrial process and production or engineering related scientific and technical consulting activities))
- **SIC 74 Other professional, scientific and technical activities**
  - 74.9 Other professional, scientific and technical activities n.e.c.
    - 74.90/2 Quantity surveying activities

## 6.1.2 The basis for selecting companies

The main estimates required from the survey are total numbers and distributions of workers in the construction industry. When obtaining counts of employees, it is statistically efficient (i.e. the estimates are measured with greater precision), if businesses with a larger number of employees are over-sampled compared with those with a smaller number of employees. Furthermore, oversampling larger firms make the sample more accurately representative of the industry as a whole. Therefore we designed the sampling so that businesses with a larger number of employees were given a higher chance of being selected for the survey.

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## 6.2 Questionnaire design

The aim of the questionnaire was to collect details of each company's workforce, in terms of:

- Occupation;
- employment status; and
- gender.

The respondents were asked to record this information for the given reference week which was the week beginning 5<sup>th</sup> December 2015.

The questionnaire was based on that used for the 2011, 2005, 2001 and 1998 surveys. In order to stay consistent to the previous waves, only minor changes were made in the questionnaire.

## 6.3 Pilot

A pilot study was carried out from 6<sup>th</sup> November until 2<sup>nd</sup> December 2015. The primary aim of the pilot was to test the web version of the questionnaire in field. A paper invitation mailout containing the invitation letter and questionnaire were sent to 28 construction companies. The letter contained login details to an online version of the questionnaire. A reminder letter along with a replacement copy of the paper questionnaire was sent to those who had not yet responded on 19<sup>th</sup> November. Response rate of around 10% was achieved.

No issues were identified with either the paper or online version of the questionnaire and therefore no changes were required. Only the reference period respondents were asked to think of when filling in the details of their workforce was amended.

The planned procedures for the main fieldwork were reviewed. Given that the sample had been matched with Experian database, it was decided that the fieldwork would begin with an email invitation, followed by paper mailouts.

## 6.4 Data collection

### 6.4.1 Fieldwork process

The mainstage fieldwork was launched on 8<sup>th</sup> January with an initial invitation email which was sent to 1263 companies to whom we held an email address. The first reminder email was sent on 19<sup>th</sup> January, followed by a second reminder email on 26<sup>th</sup> January.

The first paper mailout was sent on 18<sup>th</sup> February. A third email reminder was sent out at the same time. The paper mailout contained a copy of the questionnaire in addition to individual login details to complete the survey online. The reminder paper mailout was sent out on 15<sup>th</sup> March. All remaining non-responding companies, for whom a telephone number was available, were telephoned in the following week and reminded of the survey and given final encouragement to respond. Interviews were conducted by specialist interviewers from NatCen's Telephone Unit in Brentwood using Computer Assisted Telephone Interviewing (CATI). The telephone reminder process started on 30<sup>th</sup> March.

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Given the lower than expected response, the reserve sample consisting of 1,001 cases was invited to take part on 12<sup>th</sup> April. A reminder mailout was sent to them on 10<sup>th</sup> May. The fieldwork ended on 31<sup>st</sup> May.

The fieldwork materials can be seen on Appendices A-D.

## 6.4.2 Questionnaire errors

The first mailout of the paper questionnaire incorporated two minor errors. It contained an old logo of the Department for Business Innovation & Skills as well as a slightly incorrect example of how to complete the questionnaire. The correct version was sent out in the subsequent versions.

As part of quality control checks during the fieldwork, the following three discrepancies were noted between the live web and paper versions of the questionnaire:

- ‘Sheeters and Cladders’ category was missing from the ‘Roofers’ section in the web version of the questionnaire.
- The second category under ‘Decorators’ was ‘Resin floor installers’ in the web questionnaire, whereas it was meant to be ‘Painters and Decorators’.
- In the ‘Partition Operatives’ section the first category ‘Demountable partition erectors’ was missing the last word ‘erectors’ in the web questionnaire.

These problems only affected the web version of the questionnaire and therefore the respondents who have completed the survey online. In terms of the incorrect and missing employment categories, it meant that some respondents may have not been able to complete all the relevant information in the questionnaire. With regards the missing word, this may have caused confusion amongst the respondents and may have led to some information being left out. All respondents who had by that point completed the online version of the questionnaire were contacted by the Telephone Unit to make sure no information was missing due to the errors.

## 6.5 Response rate

The response rate for the survey was 12 per cent. This is considerably lower than the response rate to the 2011 survey (26 per cent), 2005 survey (58 per cent), the 2001 survey (53 per cent) and the 1998 survey (50 per cent). The expectation was that enabling online responses would improve the response rate. However, the vast majority of the responses were completed on paper therefore the mode of data collection was not significantly different to the 2011 survey, where a 26 per cent response rate was achieved. Our analysis showed that most of the email invitations did arrive in the recipient’s inbox but were simply not opened. The breakdown below shows the results of a mailout sent on 26<sup>th</sup> January.

- 1,258 on the list
- 1,118 emails were sent
- 140 were not sent for the following reasons:
  - Previously unsubscribed 36
  - Previously bounced 104
- Emails received 1083

- Opened email 151
- Clicked 21
- Unsubscribed 12
- Emails not received 35
  - Bounced 4
  - Blocked 31

The number of those that were out of scope (such as those gone away from address, those who reported themselves as ineligible) was not much higher than it was in 2011.

### Response 1998-2011

Total sample	1998		2001		2005		2011	
	No.	%	No.	%	No.	%	No.	%
Sample	2000		1997		2491		2554	
Out of scope addresses (e.g. ceased trading, etc.)	107	5	89	4	102	4	245	10
Total valid addresses	1893	100	1908	100	2389	100	2309	100
1st /2nd mailing	610		594		1054		457	
3rd mailing	239		240		220		181	
4th mailing	103		115		-		-	
Telephone stage1	-		61		109		22	
<b>Total</b>	<b>952</b>	<b>50</b>	<b>1010</b>	<b>53</b>	<b>1383</b>	<b>58</b>	<b>660</b>	<b>26</b>

### Response 2015

Total sample	2015	
	No.	%
Sample	3975	
Out of scope addresses (e.g. ceased trading, etc.)	190	5
Total valid addresses	3785	100
Initial email campaign	3	
1 <sup>st</sup> / 2 <sup>nd</sup> mailing (main sample)	223	
Telephone stage	123	
1 <sup>st</sup> / 2 <sup>nd</sup> mailing (reserve sample)	114	
<b>Total</b>	<b>463</b>	
<i>Of which:</i>		
Total paper returns	406	
Total web returns	57	

<sup>1</sup> In 2001, at the telephone stage companies were interviewed using a telephone version of the postal questionnaire. In 2005 and 2011, the telephone stage was simply an additional reminder stage i.e. companies were not interviewed over the phone at this stage but instead asked to return their postal questionnaire. Following the telephone call, a further copy of the questionnaire was sent out where necessary.

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Given that respondents were approached by different means sometimes simultaneously (by email, post or telephone), it is difficult to say which campaigns were particularly effective in boosting the response.

## 6.6 Data preparation

### 6.6.1 Potential sources of error

There are two main sources of potential error at this point in the process, which can be minimised by applying appropriate checks to the data. These are:

- Recording errors - where respondents use correct figures but put their entries into the wrong row or column of the questionnaire.
- Keying errors - where some data from correctly completed questionnaires are nonetheless transcribed into the wrong fields on the datafile. (This can occur, for example, when skipping over blank fields on a questionnaire where many of the occupational categories did not apply.)

### 6.6.2 Checks

These possible sources of error can be minimised by carrying out a manual check of the form prior to keying. This was carried out on receipt of the questionnaire to ensure there is sufficient information to enter into the database and that the figures reported are in the correct format. If for any reason data entry is not possible, the form was removed from the keying process and the company was contacted to obtain further information.

Subsequent data checking was undertaken by the researchers, as part of the final step of the data cleaning process, using SPSS syntax. Value and logic checks were used to sense check between answers. The cases that failed the checks were examined in detail

The resultant datafile was then weighted as described in Section 6.7 to produce the results for the survey.

## 6.7 Weighting and grossing procedures

The aim of the weighting was to reduce bias when estimating the counts of workers for the construction industry from the achieved sample of businesses.

The selection probability weights were calculated as the total population size for each sampling strata divided by the number of cases selected. For some of the businesses, the number of employees recoded in the survey (empirical size) meant that they should have been in a different category for the number of employees than was used for the sampling (theoretical size) (see Table 1). For only 54 per cent of interviewed companies reported size matched the information in IDBR and for 35 per cent estimated size was smaller than registered in IDBR. For cases which did not match, the selection weight was based on the survey estimate of the number of employees rather than the estimate from the IDBR. If we had used the selection weights based on the original sampling strata, such misclassification



in company size would be a problem to obtain accurate estimates of the number of employees.

**Table 1: Sampled companies by theoretical and empirical size**

	Survey estimate:						
	0 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 to 249	250+
IDBR:							
0 to 4	<b>35</b>	12	4	2	0	1	0
5 to 9	18	<b>28</b>	23	7	3	0	0
10 to 19	2	7	<b>37</b>	25	7	7	1
20 to 49	0	0	7	<b>64</b>	21	12	3
50 to 99	0	0	0	8	<b>34</b>	18	3
100 to 249	0	0	0	0	3	<b>29</b>	9
250 +	0	0	0	0	0	5	<b>19</b>

These selection weights were then adjusted using calibration weighting so that the weighted distributions for the participating sample matched population estimates for country, employment size (0 to 4, 5 to 9, 10 to 19, 20 to 49, 50 to 99, 100 to 249, 250 or more) and SIC code (41, 42, 43, 71/74). Further investigation of ratios between unweighted and weighted data after calibration confirmed that no adjustment as i.e. trimming of weights was required.

Tables 2 to 4 show the population counts that were used for calibration, and the estimates of counts based on the selection weights and the final weights.

**Table 2 Population and weights counts by region/country**

Region/ country	Population	Counts (selection weights)	Counts (final weights)
England	319,183	296,594	319,183
Wales	13,840	24,394	13,840
Scotland	28,387	40,126	28,387
Northern Ireland	10,259	10,556	10,259
Total	371,669	371,669	371,669

**Table 3 Population and weights counts by grouped number of employees**

Number of employees	Population	Counts (selection weights)	Counts (final weights)
0 to 4	316,700	258,454	316,700
5 to 9	31,678	47,943	31,678
10 to 19	14,031	30,136	14,031
20 to 49	6,343	25,918	6,343
50 to 99	1,706	5,401	1,706
100 to 249	785	3035	785
250 +	426	783	426
Total	371,669	371,669	371,669

**Table 4 Population and weights counts by SIC code**

SIC code	Population	Counts (selection weights)	Counts (final weights)
SIC 41	80,138	61,820	80,138
SIC 42	22,274	61,654	22,274

SIC 43	185,188	199,633	185,188
SIC 71&72	84,069	48,562	84,069
TOTAL	371,669	371,669	371,669

## 6.8 Comparison with the Labour Force Survey

The distribution of occupations from this survey is calculated using the weighting described in chapter 6.7. This can be compared with data from the Labour Force Survey (LFS), which provides an alternative estimate of the number and distribution of people employed in the construction industry across the UK.

### 1.1.1 Occupation distribution in LFS and CITB's Employment in Construction Industry survey

As with the survey estimates presented in this report, the LFS estimates refer to all individuals employed by an organisation whose main activity implies a SIC code covered by CITB's Employment in Construction survey, defined by SIC (2007).

#### SIC 41 Construction of Buildings

41.1	Development of building projects
41.10	Development of building projects
41.2	Construction of residential and non-residential buildings
41.20	Construction of residential and non-residential buildings
41.20/1	Construction of commercial buildings
41.20/2	Construction of domestic buildings

#### SIC 42 Civil Engineering

42.1	Construction of roads and railways
42.11	Construction of roads and motorways
42.12	Construction of railways and underground railways
42.13	Construction of bridges and tunnels
42.2	Construction of utility projects
42.21	Construction of utility projects for fluids
42.22	Construction of utility projects for electricity and telecommunications
42.9	Construction of other civil engineering projects
42.91	Construction of water projects
42.99	Construction of other civil engineering projects n.e.c.

#### SIC 43 Specialised construction activities

43.1	Demolition and site preparation
43.11	Demolition
43.12	Site preparation
43.13	Test drilling and boring
43.29	Other construction installation
43.3	Building completion and finishing
43.31	Plastering
43.32	Joinery installation
43.33	Floor and wall covering

43.34	Painting and glazing
43.34/1	Painting
43.34/2	Glazing
43.39	Other building completion and finishing
43.9	Other specialised construction activities n.e.c.
43.91	Roofing activities
43.99	Other specialised construction activities n.e.c.
43.99/1	Scaffold erection
43.99/9	Specialised construction activities (other than scaffold erection) n.e.c.

## **SIC 71 Architectural and engineering activities; technical testing and analysis**

71.1	Architectural and engineering activities and related technical consultancy
71.11	Architectural activities
71.11/1	Architectural activities
71.11/2	Urban planning and landscape architectural activities
71.12	Engineering activities and related technical consultancy
71.12/1	Engineering design activities for industrial process and production
71.12/2	Engineering related scientific and technical consulting activities
71.12/9	Other engineering activities (not including engineering design for industrial process and production or engineering related scientific and technical consulting activities)

## **SIC 74 Other professional, scientific and technical activities**

74.9	Other professional, scientific and technical activities n.e.c.
74.90/2	Quantity surveying activities

However, there are differences between the two sets of estimates, and these will occur for a number of reasons:

- **Different time periods.** The LFS refers to the average situation between October and December 2015. The CITB survey refers specifically to the week beginning 5<sup>th</sup> December 2015.
- **Different respondents.** The LFS collects data from individuals within households. The Employment in Construction Industry survey collects data from employers.
- **Different definitions of occupations.** The LFS asks standard questions regarding job title and the work normally done in that job. Occupation is then coded to SOC based upon job title, using the description of what the respondent normally does only when the job title is ambiguous or insufficient. The Employment in Construction Industry survey provided respondents with a pre-coded list of occupations and specific instructions on how to classify.
- **Different scale.** As well as the reasons set out above, some of the differences found between the LFS and Employment in Construction Industry survey estimates may be due in part to the lower number of interviews carried out as part of the Employment in Construction Industry survey.

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All of the above are likely to contribute to differences between the survey estimates of occupation distribution, as may be illustrated by the following examples:

**Example 1:**

The rules for coding SOC rely primarily on the job title as reported by the respondent. For example, someone reporting their job title as 'builder' and then going on to say that they normally do 'bricklaying, plastering, pointing, other building work', would be most likely to be coded as 'construction trade not elsewhere classified' (5319). For this code, the relevant tasks listed in SOC Volume 1 includes 'lays bricks'. However, the Employment in Construction Industry survey explicitly stated, 'If a person does more than one type of occupation, please only include them once under their main occupation', so someone whose job title was 'builder' but whose main activity is bricklaying, should be coded 'bricklayer'.

**Example 2:**

Employers and employees may well, in some cases, have a different perspective on occupations. For example, a person with more than one skill may well give themselves a generic title like 'builder', whereas the employer who takes that person on to do one specific task will classify them under that specific occupation. There are also difficulties and differences in the classification as a manager.

Taking all of this into account, we would expect the distributions from the LFS and Employment in Construction Industry survey to exhibit some differences. These differences would have arisen for genuine and valid reasons, rather than being the result of any errors or shortcomings of either survey. Indeed, it would simply not be credible for the two surveys to produce very similar distributions, bearing in mind what is known about the differences in methodology.


According to the Labour Force Survey, there were 2,386,305 people working in the Construction industry between October and December 2015. We have used our knowledge of SOC coding and judgement to assign each SOC code to the occupation grouping in which most, if not all, such occupations would have been likely to have been recorded on the Employment in Construction survey.


## Estimated distribution of construction from LFS and CITB's Employment in Construction survey

Occupation	LFS %	CITB %	SOC codes	CITB survey codes
Total bricklayers	7.2%	8.8%	5312, 5319 (50%)	1 - 6
Total roofers	1.5%	4.1%	5313	7 - 14
Scaffolders	1.0%	1.9%	8141	15
Total floorers	1.5%	0.9%	5322	16 - 19
Total painters and decorators	2.5%	2.4%	5319 (5%), 5323	20 - 21
Total partition operatives	2.0%	2.5%	5321	22- 26
Total wood trades	10.9%	11.1%	5315, 5319 (25%), 5492, 5493, 8121	27 - 32
Total steel workers	1.2%	1.1%	5211, 5213-5215, 5311, 5319 (5%)	33 - 34
Glaziers	1.4%	1.9%	5316, 5319 (5%)	35
Total civil engineering operatives	2.1%	4.6%	8123, 8142, 8143, 8216, 9129, 9235,	36 - 42
Total plant operatives	3.1%	2.6%	8124, 8129, 8219, 8221, 8222, 8229, 5223, 5224, 5231	43 – 47
Total building services	4.1%	12.9%	5241-5243, 5245, 5249, 5216, 5314, 5319 (5%)	48 - 51
Total specialist	2.5%	2.2%	5319 (5%), 8149	52 - 58
Total modern methods	0.0%	0.4%	N/A	59 - 64
Total labourers and non-construction operatives	8.3%	7.1%	9121, 9132, 9232, 9233, 5234, 5412, 5413, 5424, 5434, 5494, 5495, 5499, 6232, 8111, 8112, 8114, 8116, 8117, 8119, 8125, 8126, 8132, 8133, 8139, 8211, 8212, 8214, 9111, 9112, 9119, 9134, 9139, 9141, 9149, 9211, 9222-9225, 9241, 9249	77, 79, 81-83
Office staff	8.3%	11.3%	3541-3544, 3562, 3563, 4111-4114, 4121, 4122, 4123, 4131, 4133, 4134, 4136, 4137, 4141, 4150, 4211, 4212, 4214-4217, 7111-7113, 7129, 7211, 7212, 9219	78, 84
Managers	19.1%	7.5%	1112, 1113, 1114, 1121-1123, 1131-1137, 1141, 1142, 1151, 1152, 1161-1163, 1174, 1181, 1184, 1211, 1212, 1222-1225, 1231, 1234, 1235, 1239	68, 71, 72, 76
Technicians	5.9%	6.4%	3112-3119, 3121-3123, 3131, 3132, 3211, 3229, 3231, 3232, 3319, 3412-3434, 3520, 3531-3539, 3551, 3561, 3565, 3566, 3568	66, 67, 70, 74
Professionals	13.7%	10.3%	2111-2113, 2121-2129, 2131, 2132, 2314, 2319, 2322, 2329, 2411, 2419, 2421-2423, 2431-2434, 2442, 2452	65, 69, 73, 75
Totals	2,386,305	1,892,427		

## Appendix A. Invitation email

**NatCen**  
Social Research that works for society

 Department  
for Business  
Innovation & Skills



### Shape the future of the construction industry

Dear Mrs Henderson,

A well trained and skilled workforce is essential for all businesses operating in the construction industry. As you may know the Construction Industry Training Board (CITB) provides support and funding to construction companies to help them improve skills and increase competitiveness.

On behalf of CITB and the Department for Business, Innovation and Skills, we would like to invite you to take part in a short questionnaire to help us understand the industry and its workforce.

We simply want to know the number of employees, trainees and self-employed people at your organisation in the week commencing Monday 7th December 2015. You can do so, either online or on the paper questionnaire we have sent you.

**Take part now**


By providing this information, you will help the CITB support training that reflects the real needs of businesses like yours. If you are unable to provide this information, please forward this email to the most suitable person at your company.

As a thank you, for every questionnaire returned we will donate £1 to your choice of three charities working with the construction industry:

- **Lighthouse Club** - a charity supporting construction workers and their families in times of stress: [lighthouseclub.org](http://lighthouseclub.org)
- **Crash** - a construction and property industry charity for the homeless: [crash.org.uk](http://crash.org.uk)
- **Construction Youth Trust** - runs a variety of programmes for young people from diverse backgrounds who are interested in construction: [constructionyouth.org.uk](http://constructionyouth.org.uk)

For more information visit [natcen.ac.uk/construction](http://natcen.ac.uk/construction), email us at [construction@natcen.ac.uk](mailto:construction@natcen.ac.uk) or call on Freephone 0800 652 4568.

Yours faithfully,





**Helen Henderson**  
Senior Researcher, NatCen

Kirsty Woolsey

## Appendix B. Invitation letter

**NatCen**  
Social Research that works for society

 Department  
for Business  
Innovation & Skills



<contact\_person>  
<company\_name>  
<address1>  
<address2>  
<address3>  
<address4>  
<address5>  
<postcode>

Serial number: <Serial>  
Checkletter: <CL1>

### Help shape the future of the construction industry

Dear <Salutation> <Surname>,

A well trained and skilled workforce is essential for all businesses operating in the construction industry. As you may know the Construction Industry Training Board (CITB) provides support and funding to construction companies to help them improve skills and increase competitiveness.

On behalf of CITB and the Department for Business, Innovation and Skills, we would like to invite you to take part in a short questionnaire to help us understand the industry and its workforce. We simply want to know the number of employees, trainees and self-employed people at your organisation in the week commencing Monday 7th December 2015. You can do so, either online or on the paper questionnaire provided.


**To take part online, visit [survey.natcen.ac.uk/construction](http://survey.natcen.ac.uk/construction)**  
**Your unique access code is: <AccessCode>**


By providing this information, you will help the CITB support training that reflects the real needs of businesses like yours. If you are unable to provide this information, please pass this letter and questionnaire to the most suitable person at your company.

As a thank you, for every questionnaire returned we will donate £1 to your choice of three charities working with the construction industry:

- **The Lighthouse Club** – a charity supporting construction workers and their families in times of stress. [www.lighthouseclub.org](http://www.lighthouseclub.org)
- **Crash** – a construction and property industry charity for the homeless. [www.crash.org.uk](http://www.crash.org.uk)
- **Construction Youth Trust** – runs a variety of programmes for young people from diverse backgrounds who are interested in construction. [constructionyouth.org.uk](http://constructionyouth.org.uk)


Yours faithfully,

  
Helen Henderson  
Senior Researcher, NatCen


  
Kirsty Woolsey  
Research Analyst, CITB

## Appendix C. Reminder letter

**NatCen**  
Social Research that works for society



Department  
for Business  
Innovation & Skills



<contact\_person>  
<company\_name>  
<address1>  
<address2>  
<address3>  
<address4>  
<address5>  
<postcode>

Serial number: <Serial>  
Checkletter: <CL1>

### Help shape the future of the construction industry

Dear <Salutation> <Surname>,

We wrote to you a little while ago to invite you to take part in an important piece of research for the Construction Industry Training Board (CITB). A well trained and skilled workforce is essential for all businesses in the construction industry. As you may know the CITB provides support and funding to construction companies to help them improve skills and increase competitiveness.

We would like to invite you to take part in a short questionnaire to help us understand the industry and its workforce. We simply want to know the number of employees, trainees and self-employed people at your organisation in the week commencing Monday 7th December 2015. You can do so, either online or on the paper questionnaire provided.



**To take part online, visit [survey.natcen.ac.uk/construction](http://survey.natcen.ac.uk/construction)**  
**Your unique access code is: <AccessCode>**

By providing this information, you will help the CITB support training that reflects the real needs of businesses like yours. If you are unable to provide this information, please pass this letter and questionnaire to the most suitable person at your company.

As a thank you, for every questionnaire returned we will donate £1 to your choice of three charities working with the construction industry:

- **The Lighthouse Club** – a charity supporting construction workers and their families in times of stress. [www.lighthouseclub.org](http://www.lighthouseclub.org)
- **Crash** – a construction and property industry charity for the homeless. [www.crash.org.uk](http://www.crash.org.uk)
- **Construction Youth Trust** – runs a variety of programmes for young people from diverse backgrounds who are interested in construction. [constructionyouth.org.uk](http://constructionyouth.org.uk)

Yours faithfully,



**Helen Henderson**  
Senior Researcher, NatCen

**Kirsty Woolsey**  
Research Analyst, CITB



# Appendix D. Paper questionnaire

**NatCen**  
Social Research that works for society



  
Department  
for Business  
Innovation & Skills

P11795

<<Barcode>>  
<<Serial>>

SN: 1001 – 1005  
CKL: 1006  
MAILING: 1007 – 1008  
CARD: 1009  
BATCH: 1010 – 1014  
SPARE COLS: 1015 – 1019

## Survey of Employment by Occupation in the Construction Industry

This survey is being conducted for CITB (Construction Industry Training Board) and BIS (Department for Business Innovation & Skills).

By taking part in this research you will be helping to shape the future of the construction industry. With accurate information about the workforce the Construction Industry Training Board will be able to support training that reflects the real needs of companies like yours.

If you are unable to complete the questionnaire, please pass it on to someone at your organisation who can – this would usually be someone who deals with HR. Please use blue or black ink.

All information collected is strictly confidential and will be used for research purposes only. No one will be able to identify your business in the results.

If you require any help completing the questionnaire, or would like some more information, please call us on Freephone 0800 652 4568, email [construction@natcen.ac.uk](mailto:construction@natcen.ac.uk) or visit [natcen.ac.uk/construction](http://natcen.ac.uk/construction).

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### Instructions for Filling out the Questionnaire

For this questionnaire, we would like you to fill in the numbers of people working for your company in each of the occupations listed below. Please do this for the week commencing 7<sup>th</sup> December (i.e. 7<sup>th</sup> - 13<sup>th</sup> December). This should include everyone who works at the company, firm, or organisation to which this questionnaire was sent.

For each occupation, please write in separately:

1. the number of men and women who are employees of you or this company (not including trainees).
2. the number of men and women who are trainees (including apprentices and those on graduate schemes). A trainee is a person whose employer has undertaken to provide managerial, administrative, professional, technical, or manual training for a specified period of at least 12 months.
3. the number of men and women who are self employed (including those employed through a recruitment agency).

If a person has more than one type of occupation, please only include them once under their *main occupation*.

If you do not have any employees, trainees or self-employed men or women in an occupation, just leave the box blank. If you make a mistake and write your answer in the wrong box, colour in that whole box and write your answer in the appropriate box. If you write in the wrong number, cross out that number and write in the correct one in the same box if possible.

Please include employees who have been absent from work during the week commencing 7<sup>th</sup> December (i.e. 7<sup>th</sup> - 13<sup>th</sup> December) due to illness or another cause, but do not include people who *normally* work for less than eight hours a week. Please do not include non-executive directors paid solely by fees.

### Example to help you complete the questionnaire

This example is just to give you an idea of how to fill in the questionnaire. The occupational definitions start on the next left hand page of this booklet, the spaces for answers start on the next right hand page. You should read down the occupation list and their descriptions on the left hand page, and fill in the number of men and women for each employment type on the right hand page.

Q7. Thinking about the week commencing 5<sup>th</sup> October 2015 (i.e. from 5<sup>th</sup> - 11<sup>th</sup> October), for each occupation please write in the number of men and women, including yourself, employed by your company either as an employee, a trainee, or self employed.

- If a person does more than one job, enter them once under their main job
- Do not include people who work less than 8 hours a week
- If not applicable, leave the box blank

		Employees Not counting trainees		Trainees People being trained for at least 12 months (inc. apprentices/graduates)		Self Employed & Sub-contractors (inc. those employed through a Recruitment Agency)	
		Men	Women	Men	Women	Men	Women
Trowel Trade	<b>Bricklayers</b> Erect & repair structures of stone, brick and similar materials. Dry stone wall						
	<b>Cavity Wall Tie Installers</b> Install proprietary wall tie systems.		3				
	<b>Facade Maintenance/Cleaning</b> Extend, clean, maintain and preservation of masonry.			12			
	<b>Mason Paviors</b> Installation and repair of paving stones, including the cutting and dressing of square stone, decorative paving (common and complex patterns), installation of structural components (e.g. kerbs, rainwater).						
	<b>Stonemasons</b> Include monumental masons, stone carvers and stone joiners.						
	<b>Refractory Engineers</b> Repair, maintain and line furnaces.				2		
	<b>Built-up Felt Roofers</b> Apply layers of felt with bitumen to create roofs.					4	
<b>Leadworker</b> Include of such as specialist heritage work.							

In the example, there are:

- 3 female employees who are 'Cavity Wall Tie Installers'
- 12 male employees who are 'Façade Maintenance/Cleaning' workers
- 2 female trainee 'Refractory Engineers'
- 4 male self-employed 'Built-up Felt Roofers'

However, there are no Bricklayers, Mason Paviors, Stonemasons, or Leadworkers, so all the spaces are left blank for these occupations.

---

## Frequently Asked Questions

1. Is there a category for 'general builder'?

*No, if you consider yourself or anyone in your organization to be a 'general builder' please select what they do most of the time*

2. If I am the owner of the business should I list myself as a self employed worker?

*Yes that is fine **unless** it is a limited (Ltd.) company. If this is the case then all directors should be listed as **employees***

---

## Before completing the questionnaire, please answer the following six questions:

- Q1. Which of these activities is your company mainly engaged in?

*Please tick  
one box*

House building  <sub>1</sub>

Non-residential building  <sub>2</sub>

Civil Engineering  <sub>3</sub>

- Q2. What type of work does your company mainly carry out?

*Please tick  
one box*

New build  <sub>1</sub>

Repair & Maintenance or refurbishment  <sub>2</sub>

- Q3. What proportion of your staff work mainly on-site and what proportion of your staff work mainly in the office?

By 'mainly' we mean that on average they spend more than 50% of their time working in these locations.

Percentage of staff who work mainly on-site  %

Percentage of staff who work mainly in the office  %

*Total*                      *100%*

Q4. Thinking about your staff turnover (the number of people who leave your organisation) each year, what proportion of these staff are those who work mainly on-site or those who work mainly in the office?

Percentage of annual staff turnover which are employees who work mainly on-site  %

Percentage of annual staff turnover which are employees who work mainly in the office  %

Total 100%

Q5. Thinking about where you recruit new staff from, what proportion of mainly on-site staff are recruited...

On-site  
...Locally (within 25 miles of where you are based)?  %

...Regionally (within 75 miles of where you are based)?  %

...Nationally (from anywhere else in the UK)?  %

Total 100%

Q6. Thinking about where you recruit new staff from, what proportion of mainly office based staff are recruited...

Office based  
...Locally (within 25 miles of where you are based)?  %

...Regionally (within 75 miles of where you are based)?  %

...Nationally (from anywhere else in the UK)?  %

Total 100%

**Q7. Thinking about the week commencing 7th December 2015 (i.e. from 7th - 13th December), for each occupation please write in the number of men and women, including yourself, employed by your company either as an employee, a trainee, or self employed.**

- If a person does more than one job, enter them once under their main job
- Do not include people who work less than 8 hours a week
- If not applicable, leave the box blank

		Employees Not counting trainees		Trainees People being trained for at least 12 months (Inc. apprentices/graduates)		Self Employed & Sub-contractors (Inc. those employed through a Recruitment Agency)	
		Men	Women	Men	Women	Men	Women
Trowel Trade	<b>Bricklayers</b> Erect & repair structures of stone, brick and similar materials. Dry stone waller	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Cavity Wall Tie Installers</b> Install proprietary wall tie systems.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Facade Maintenance/Cleaning</b> External cleaning, maintenance and preservation of masonry.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Mason Paviers</b> Installation and repair of paving stones, including the cutting and dressing of natural stone, decorative paving (common and complex patterns), installation of structural components (e.g. kerbs, ironworks).	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Stonemasons</b> Include monumental masons, stone carvers and stone polishers.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Refractory Engineers</b> Repair, maintain and line furnaces	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Roofers	<b>Built-up Felt Roofers</b> Apply layers of felt with bitumen to create roofs.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Leadworker</b> Include all such as specialist heritage work.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Liquid Applied Roofers</b> Apply coats of liquid hollow polymeric/bituminous materials to create roofs.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Mastic Asphalters</b> Apply hot liquid mastic asphalt to roofs, floors, and bridges to make them waterproof.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Sheeters and Cladders</b> Fix weatherproof sheets to metal frames to create roofs & walls.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Single Ply Roofers</b> Apply single membrane of thermoplastic or elastomeric material to create roofs.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Slaters and Tilers</b> Apply individual slates/tiles to wooden frameworks to create roofs.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Thatchers</b> Apply straw, reed grass and other specialist materials to pitched roofs.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Scaffolders	<b>Scaffolders</b> Erect tubes and fittings and proprietary systems scaffolds for access	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Floorers	<b>Access Flooring Installers</b> Install access flooring systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Resin Flooring Installers</b> Seamless resin flooring systems and self levelling floor screed treatments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Floorcoverers</b> Incl. Carpet Fitters, Include timber floorers, vinyl linoleum and carpet layers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Wall and Floor Tilers</b> Install glazed, unglazed, patterned and specialist tiles, Ceramic tiler, Mosaic floor tiler.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decorators	<b>Commercial Painters</b> Painters who do not hang wall coverings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Painters and Decorators</b> Include industrial painters, French polishers and signwriters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Partition Operatives	<b>Demountable Partition Erectors</b> Install relocatable partitions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Dry Liners (finishers)</b> Finish dry lining systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Dry Liners (fixers)</b> Install internal dry walls and lining systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Plasterers (Fibrous)</b> Include moulders. (Could also do solid plastering).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Plasterers (Solid)</b> Include moulders. (Could also do fibrous plastering).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wood trades	<b>Carpenters &amp; Joiners (Benchwork)</b> Includes setting out and marking joinery, assembling & finishing joinery.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Carpenters &amp; Joiners (Sitework)</b> Includes first & second fixing, carcassing, maintenance work, formwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Fitted Interior Contractors</b> Install fitted kitchens, bathrooms, bedrooms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Formworkers</b> Includes timber & proprietary systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Shopfitters</b> Make & install shop fronts and internal layouts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Wood Machinists</b> Saw, plane, mould & finish timber profiles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Building Services</b>	<b>Electricians</b> include cable joiners.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Heating and Ventilating Engineers</b> Industrial and Commercial Fitter; Industrial & Commercial Fitter/Welder; Domestic Installation Fitter; Service Engineer; Diagnostic Engineer & Ductwork Erector.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Plumbers</b> include chemical plumbers & plumbers' welders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Refrigeration &amp; Air Conditioning Engineers</b> Small Commercial Refrigeration & Air Conditioning; Commercial & Industrial Refrigeration (Non-Ammonia); Commercial & Industrial Refrigeration (Ammonia); Commercial & Industrial Air Conditioning; Refrigeration Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Specialist</b>	<b>Ceiling Fixers</b> Include suspended ceiling erectors, metal fixers (ceiling systems).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Chimney Engineers</b> Repair, maintain and new work to chimneys.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Dampproofers</b> treat or repair brickwork, woodwork, floors and roofs to stop dampness, fungal infection and insect attack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Demolition Operatives</b> Demolish reinforced concrete, concrete, steel/timber structures, asbestos removers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Fire protection</b> Apply passive fire protection.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Steeplejacks/Lightning Conductor Engineers</b> Repair various types of structures & chimneys/install various lightning conductor systems to structures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Thermal Insulation Engineers</b> Apply thermal insulation materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Modern methods, specialist workers who undertake any of these activities.</b>	<b>Solar panel Installers</b> Installation of photovoltaic panels or tiles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Energy Managers</b> Managers of energy efficiency and low carbon strategies within the business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Panel Wall/Modular Systems Installer</b> Installation of proprietary walling systems produced off site in factories, to comprise the major part of structures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Green Systems Installer</b> Installation of living roof systems, either flat, pitched or green walls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Renewable Energy Installers</b> Installation of solar heating, heat exchanges, wind turbines and ground source heat pumps etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Employees		Trainees		Self Employed	
		Men	Women	Men	Women	Men	Women
Steel workers	<b>Steel Erectors/Riggers</b> Lift & position plant steel structures. Steel fabricator.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Structural Steel Workers</b> Assemble already finished products, such as fire escapes, bridges, etc.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Glaziers	<b>Glaziers</b> Include double glaziers (Installer (double glazing)), window fixers, patent glaziers, leaded light workers, glass production or processing windows, curtain walling. Window fabricator, glass cutter.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Civil Engineering Operatives	<b>Asphalters</b> Include asphalt spreaders.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Concrete Drilling and Sawing</b> Diamond drilling and sawing, hydraulic crunching and bursting and specialist demolition.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Groundwork and Site Preparation</b> Includes site clearance, soil decontamination and remediation, excavation of foundations, concreting, domestic and land drainage, hard and soft landscaping. Water reclamation and biofiltration systems (reed beds etc)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Road Markers</b> Installing devices or material on a road surface for information purposes.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Jet Patchers and Other</b> Road construction operatives, Construct, repair and maintain roads.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Public Utilities Distribution Operatives</b> Include mains and service layers for gas/water-cable layers for electricity & telecommunications.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Trackworker/railwayworkers</b> Lay, re-lay repair and examine railway track.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Plant Operators	<b>Crane Drivers</b> Skilled people who drive and operate cranes.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Drilling, tunnelling &amp; piling operatives</b> Include tunnelling operatives & piling operatives.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Plant Mechanics</b> Include plant maintenance mechanics, contractors' mechanics, & motor mechanics.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Slinger / Signaler / Banksman,</b> Directs loading and unloading of large vehicles and cranes.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Plant Operators</b> Include earth moving, lifting road building and plants for specialist applications.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



		Employees		Trainees		Self Employed	
		Men	Women	Men	Women	Men	Women
Construction Professionals & Technical	<b>Architects</b> Qualified architects including those responsible urban design, landscape architecture, architectural design, space planning and interior design.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Architectural support</b> include draughtspersons & drawing assistants, architectural assistants / technicians / technologists.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Building Inspectors</b> Building inspectors & controllers. Includes ensuring compliance with building regulations, bylaws, other legal requirements.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Contracts Managers</b> Include risk management project management, quality control/assurance, CDM, contract negotiation, contract administration, dispute resolution.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Engineering Professionals</b> Include all civil, structural, mining, quarrying, mechanical, electrical / electronic, chemical, design / development, production / process, planning / quality control engineers, Quality assurance engineer, Pipe engineer, Installation engineer, calibration engineer, precision engineer, air conditioning engineer, refrigeration engineer, service engineer (refrigeration), alarm engineer, gas engineer, gas service engineer, heating and ventilating engineer, heating engineer, plumbing and heating engineer.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Engineering Technicians</b> All science & engineering technicians, including electrical / electronic, engineering, building / civil engineering, quality assurance.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Site Managers</b> Responsible for managing a construction site.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Site Supervisors</b> Oversees operative, manual and technical site work (not Site Manager).	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Surveyors, Qualified quantity &amp; chartered surveyors</b> Include land surveying, building surveying, quantity surveying, Hydrographic surveyor.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Surveyors - estimating support</b> Include estimators, valuers and assessors.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Town Planners</b> Co-ordinating plans for urban & rural development. Includes technical & feasibility studies, development proposals, land-use planning. Planning officer.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

<b>Support staff</b>	<b>General Managers</b> Include all managers in finance, marketing/sales, advertising/PR, purchasing, personnel, IT, R&D, quality assurance, customer care, transport / distribution, property / estate, storage, retail wholesale and office managers.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Labourers</b> Include those assisting all trades.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Administrative &amp; Clerical Support</b> Include administrators, clerks & other office staff (word processor operators, secretaries, PA's, receptionists, and telephonists), computers & stores, & their supervisors.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>General Operatives excl. C.E</b> Exclude Civil Engineering.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Legal/Business Professionals and Associates</b> Include qualified solicitors, lawyers, legal support staff, accountants, estimators, other business, finance, accounting and IT consultants/technicians/administrators.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Maintenance Operatives</b> Multi-skilled operative responsible for the maintenance and repair of building fabric and fittings, services plant, and hard landscaping. Activities include, but not limited to: routine inspection of building fabric, fault finding, and small scale repair works (electrical, plumbing, joinery, painting & decorating, glazing).	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Non-Construction Operatives</b> Include canteen staff, porters, etc.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Road Vehicle Drivers</b> Include drivers of HGV. Moving materials between sites.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<b>Sales &amp; Customer Services</b> Include people working in sales & their supervisors.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Survey of Employment by Occupation in the Construction Industry P11795**

Please fill out your contact details below so we can contact you if we have any questions about your answers or wish to contact you for future research.

Name of person completing the questionnaire: .....

Position: .....

Name of company & branch (if applicable): .....

Address: .....

.....

.....

..... Postcode: .....

Telephone no.: .....

You may find it useful to make a copy of this questionnaire for future reference or to answer any queries that may arise.

If you have any further comments, please write them below.

Thank you for completing this questionnaire. In recognition of your time and effort, we will donate £1 to one of the three charities listed below. Please select which charity you would like us to donate to.

The Lighthouse Club

Crash

The Construction Youth Trust

Please return this questionnaire using the pre-paid envelope provided, to:

*Return address:*  
NatCen Social Research  
Kings House, 101-135 Kings Road  
Brentwood, Essex, CM14 4LX  
<<Barcode>>  
<<Serial>>