

Training and the Built Environment Report 2010

Introduction

ConstructionSkills, the Sector Skills Council for the construction industry, is a partnership that delivers truly UK-wide policies and strategies that take account of the full breadth of the industry and its training, education and development needs. ConstructionSkills mission for the industry is:

**A fully skilled and professional UK construction industry
working safely and delivering value.**

To achieve this, ConstructionSkills, need to deliver the Sector Skills Agreement (SSA) that has been developed and agreed with stakeholders across government, industry and education. It covers four key skills challenges, each of which has a number of priorities.

Attracting and Retaining Talent
<ul style="list-style-type: none">➤ Promoting careers in construction.➤ Supporting vocational and sector specific qualifications in schools, colleges and universities.➤ Encouraging recruitment from a more diverse pool of talent.➤ Assisting retention by providing employers and employees with appropriate support.
Developing Talent
<ul style="list-style-type: none">➤ Promoting lifelong learning as an aid to achieving qualifications, career progression and continuous professional development.➤ Improving health and safety knowledge and behaviours.➤ Support evolving professional and specialist skills needs associated with sustainability, low carbon building and innovative construction.
Improving Business Performance
<ul style="list-style-type: none">➤ Increasing employer investment in training and development to improve productivity.➤ Increasing the uptake of skills brokerage, business support services and skills funding packages.➤ Improving supervisory, management and leadership skills.➤ Promoting integration and collaborative working in the industry.➤ Encouraging clients to invest in the construction skills base through best practice procurement.
Strengthening the Skills Infrastructure across Nations
<ul style="list-style-type: none">➤ Developing project based training across the nations in support of major construction projects.➤ Implementing the Construction Qualifications Strategy to ensure qualifications meet the needs of employers and learners.➤ Providing authoritative national and regional labour market intelligence.➤ Responding to the specific needs of the construction industry in the nations and regions.➤ Influencing skills and training policies and funding to ensure that they are fit for purpose for the construction industry.➤ Collaborating with employers and their representative bodies, professional institutions, trade unions, delivery partners and other Sector Skills Councils to develop an integrated approach.

Research provides facts about the industry. These details then form the building blocks for change and improvements in performance for those who use and work in construction. ConstructionSkills undertake a regular programme of research that aims to identify the skills needed to improve the construction industry's competitiveness.

As part of the research programme, the **Training and the Built Environment Report** provides a complete picture of training in the built environment.

The main sections of the report are:

Section 1: Trainee Numbers Survey 2009/2010 presents data collected from colleges, private training providers and construction industry training centres across Great Britain on the number of people entering construction training. These include those coming through ConstructionSkills' own managing agency and those entering other formal certificated training at craft and technical level.

Section 2: Forecasted Demand for Craft and Technical Construction Training 2010–2014 analyses this training data alongside the projected demand for skilled construction workers over the forecast period 2010–2014^a, in order to assess the adequacy of current training provision in terms of quantity.

Section 3: Construction Training Capacity 2009/2010 summarises the findings of the capacity questions from the Trainee Numbers Survey, which aimed to discover the total capacity for skilled manual trades training that is currently available.

Section 4: Higher Education in the Built Environment presents data from HESA on student enrolments on built environment degree courses in the academic year 2008/2009.

^a Construction Skills Network, Blueprint for UK Construction Skills 2010 to 2014
http://www.cskills.org/uploads/csn2010-2014national_tcm17-18127.pdf

Summary

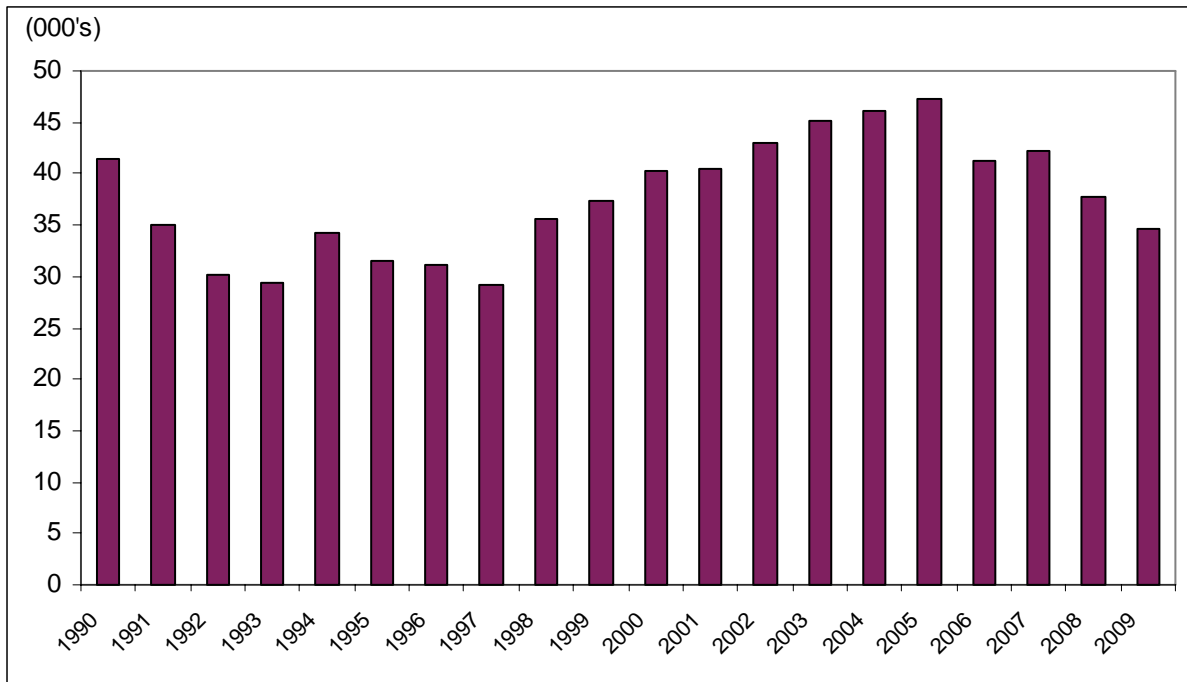
- First-year intake in 2009/2010 stands at just over 34,500, a further decrease on previous year's figures to the lowest level in the past decade.
- The top two occupations in terms of absolute numbers of starters are wood trades and bricklayers - comparable to the previous four years.
- Half of all first-year trainees are undertaking a Level 2 qualification.
- Trainee progression from a Level 1 qualification is predicted to be considerable.
- The North West has more starters than the other 10 regions/devolved administrations.
- Just under half of all first-year trainees undertaking craft training are work-based.
- Fewer than half of all S/NVQ Level 2 and Level 3 starters are following an apprenticeship programme.
- The breakdown of first-year intake by age shows that there are slightly more trainees aged under 18 years and adult trainees.
- There are 933 female starters (3% of total).
- Ethnic minority starters account for 5% of the total, but there are strong geographical variations – rising to 33% in London.
- Predicted demand compared to the amount of training taking place shows that whilst there are expected to be an over supply of bricklayers, wood trades and plasters leaving training providers, there will be a shortfall in painting and decorating.
- Across the skilled manual trades there are 27% more applicants than starters – which equates to an average of 1.3 applicants for every available place
- Plastering is the most oversubscribed courses.
- There is considerable regional variation in the availability of work placements for trainees on Level 2 Diplomas/Intermediate Construction Awards
- The number of students starting a built environment course across the higher education sector stood at approximately 30,000 in the academic year 2008/2009, of which half (52%) were studying towards a first degree

Section 1: Trainee Numbers Survey 2009/2010

The national picture

The number of first-year trainees has decreased this year to just over 34,500, a further decrease on the previous year and the lowest level over the past decade as depicted in Chart 1.

Chart 1 – Numbers of first-year trainees 1990–2009 (Great Britain: All occupations)



Note: Due to changes made to data collection during 2004/2005, the total first-year intake displayed in the chart for years 1999 onwards does not include trainees undertaking a mechanical engineering course.

The fall in training is indicative of the economic downturn and is replicating the decrease witnessed during the recession of the early 1990s, when the construction industry underwent a prolonged period of low activity with a contracting workforce and low levels of recruitment. It is too early to state with any certainty whether the economic slow down will continue to have an adverse effect on training, but based on previous economic cycles further falls in new entrants cannot be ruled out.

Training by occupation

The overall first-year intake in the academic year 2009/2010 is 34,711. Table 1 shows the breakdown for the 21 occupations covered by the survey.

Table 1 – Numbers of first-year trainees 2009/2010 (Great Britain)

Occupation	Under 18		Over 18		Total
	Male	Female	Male	Female	
Construction managers	<50	<50	203	<50	223
Wood trades and interior fit-out	7161	<50	3509	<50	10758
Bricklayers and building envelope specialists	5204	<50	1907	<50	7168
Painters and decorators	1457	153	720	98	2428
Plasterers and dry liners	1151	<50	765	<50	1940
Roofers	145	0	109	0	254
Floorers	191	0	133	0	324
Glaziers	0	0	<50	0	<50
Specialist building operatives nec*	237	<50	873	0	1110
Scaffolders	159	<50	340	0	502
Plant operatives	342	0	3495	<50	3847
Plant mechanics/fitters	126	0	282	<50	409
Steel erectors/structural	0	0	<50	0	<50
Labourers nec*	<50	<50	<50	0	<50
Logistics	0	0	<50	0	<50
Civil engineering operatives nec*	985	<50	756	<50	1809
Civil engineers	158	<50	505	<50	729
Other construction professionals and technical staff	795	<50	1654	201	2697
Architects	<50	<50	150	<50	234
Surveyors	<50	<50	101	67	174
	18190	386	15588	547	34711

Note: The occupational groups have been extended from 15 to 21 this year (2009/2010) to bring them in-line with the occupations used in the Construction Skills Network. Please see Section 2 for more information on the Construction Skills Network.

Table 2 lists the top ten occupations in descending order, in terms of absolute number of starters for 2009/2010 shown over a five year period. Of these occupations, only specialist building operatives has more first-year trainees this year than the previous year, increasing by a massive 252% to their highest number of starters over the five year period.

Table 2 – Comparison of number of first-year trainees by occupation 2005/2006 to 2009/2010 (Great Britain)

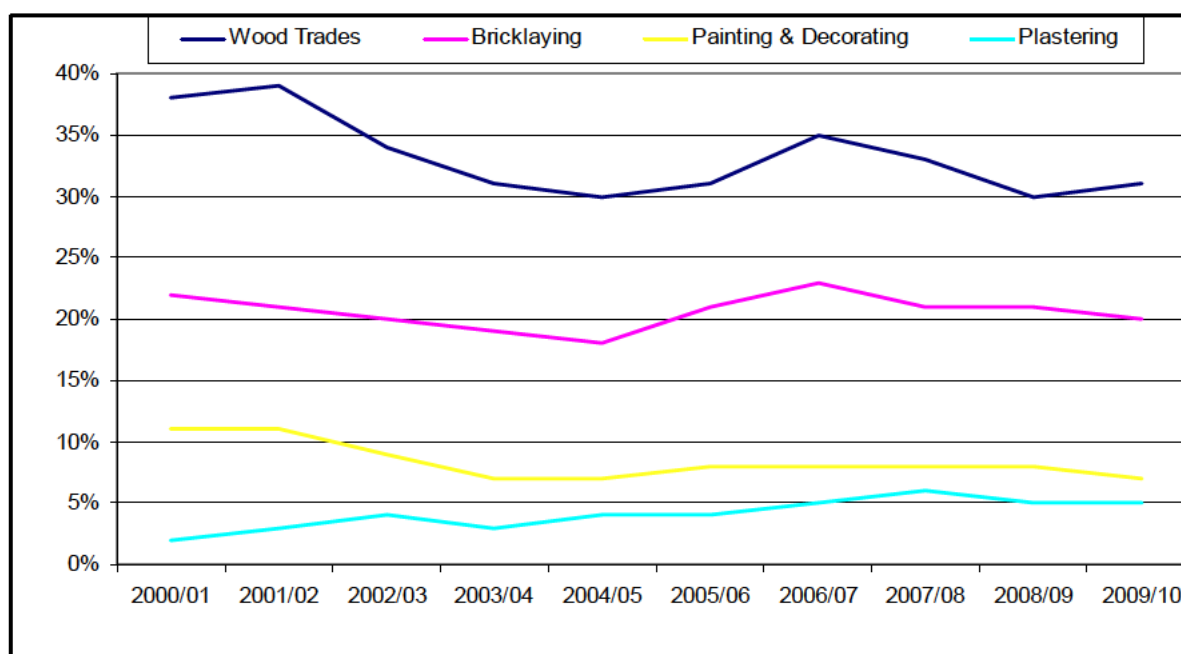
Occupations	2009/2010	2008/2009	2007/2008	2006/2007	2005/2006
Wood trades and interior fit-out	10758	11491	13743	14404	14785
Bricklayers and building envelope specialists ¹	7168	7778	8949	9338	9959
Construction managers, professionals and technical staff ¹	4057	4254	3899	5083	5525
Plant operatives	3847	4461	4746	2899	4760
Painters and decorators	2428	3006	3453	3451	3718
Plasterers and dry liners	1940	1979	2407	2151	1746
Civil engineering operatives	1809	2248	2062	1187	3424
Specialist building operatives	1110	441	451	605	799
Scaffolders	502	681	1055	925	882
Plant mechanics/fitters	409	505	511	331	173

Notes: ¹ Due to the change in occupational groups (see note to Chart 1) these groups have been amended this year (2009/2010).

Between 2005/2006 and 2009/2010 wood trades and bricklayers have ranked as the first and second largest occupational groups respectively, each year. The composition of the remaining top five places has consistently comprised construction managers, professionals & technical staff, plant operatives and painters & decorators.

Chart 2 looks specifically at the building craft occupations and the proportion they represent of all first-year trainees over a ten year period – 2000/2001 to 2009/2010. As mentioned above, Wood Trades and Bricklaying still dominate the first year training figures with 31% and 20% of the total training figure, respectively. As shown in Chart 2 the proportional share of the four main building craft occupations have remained relatively static in the past year.

Chart 2 – Proportion of first-year trainees 2000–2009 (Great Britain: Building craft occupations)



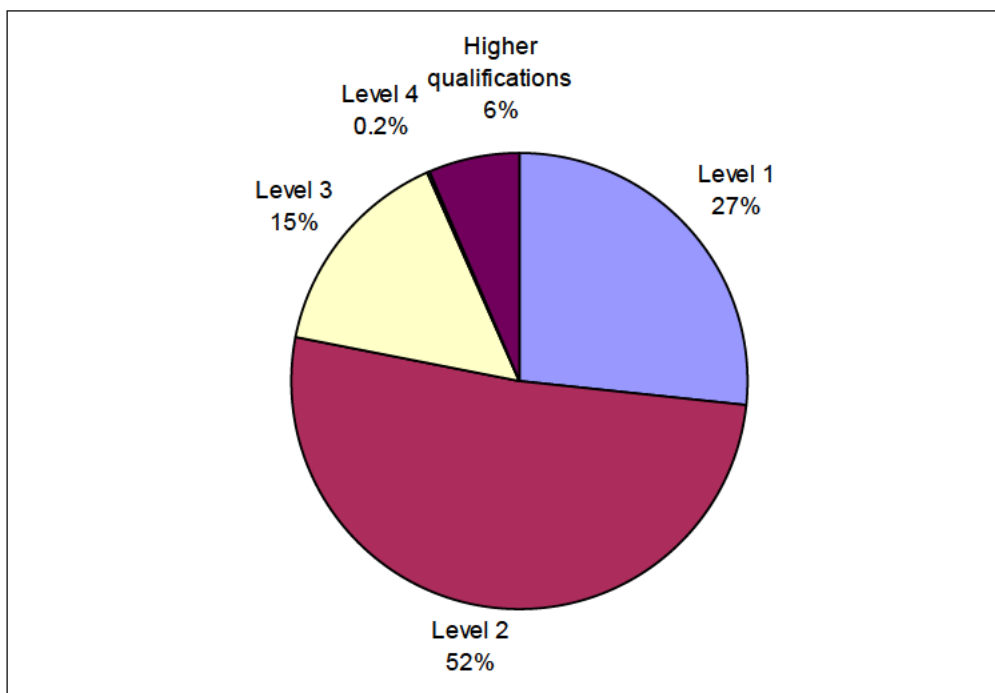
Training by qualification

Data is collected on trainees starting construction qualifications in each of the following levels:

- Level 1^b
- Level 2^c
- Level 3^d
- Level 4^e
- Higher qualifications^f

The percentage of first-year trainees on a qualification, within each of these levels, for the whole of Great Britain is shown in Chart 3.

Chart 3 – First-year trainees undertaking a qualification in each level 2009/2010 (Great Britain)



Across Great Britain, approximately half (52%) of the first-year trainees are undertaking a Level 2 qualification, while just over a quarter (27%) are following a Level 1 course. The remaining trainees are new entrants on higher level qualifications (Level 3 and above). These proportions are very similar to the last academic year.

Please note that the Trainee Numbers Survey collects data from the Further Education sector and higher level qualifications are also provided by Higher Education Institutions. See Section 4 for more information.

This pattern is consistent across the majority of Regional Development Areas of England and across Wales, but there are notable differences in the South East, North East and Scotland. These are explored further in the section entitled Geographical considerations.

^b S/NVQ Level 1; Foundation Construction Award/Certificate or Level 1 Diploma; equivalent VRQ courses

^c S/NVQ Level 2; Intermediate Construction Award/Certificate or Level 2 Diploma; equivalent VRQ courses

^d S/NVQ Level 3; Advanced Construction Award/Certificate or Level 3 Diploma; equivalent VRQ courses

^e S/NVQ Level 4; equivalent VRQ courses

^f Higher National Certificate/Diploma

Trainee Progression

In order to gain an insight into the movement of trainees from Level 1 qualifications, the survey acquires data on the expected progression of trainees from both S/NVQ Level 1 and Level 1 Diploma/Foundation Construction Awards.

Chart 4 – Expected progression of trainees from a Level 1 qualification 2006-2009 (Great Britain)



Across Great Britain, just over three-quarters (78%) of S/NVQ Level 1 trainees were expected to progress to a higher level qualification. This is very similar to the proportion reported last year (76%) and as highlighted by Chart 4 shows a degree of consistency across the four years.

Approximately two-thirds (64%) undertaking a Level 1 Diploma/Foundation Construction Award in England and Wales were predicted to progress to the Intermediate level during this academic year (2009/2010), whilst this is also similar to the proportion reported last year, the share has increased dramatically since 2007/2008 (34%).

It is certainly encouraging that such a high proportion of both S/NVQ Level 1 and Level 1 Diploma/Foundation Construction Award trainees are likely to advance to a higher level qualification (seemingly a Level 2). This suggests that Level 1 qualifications provide the appropriate skills and knowledge to enable trainees progression to a Level 2, which as stated in the Leitch Review are *'the minimum platform of skills required for employment and business competitiveness, as global economic changes reduce the employment opportunities for the unskilled'*⁹

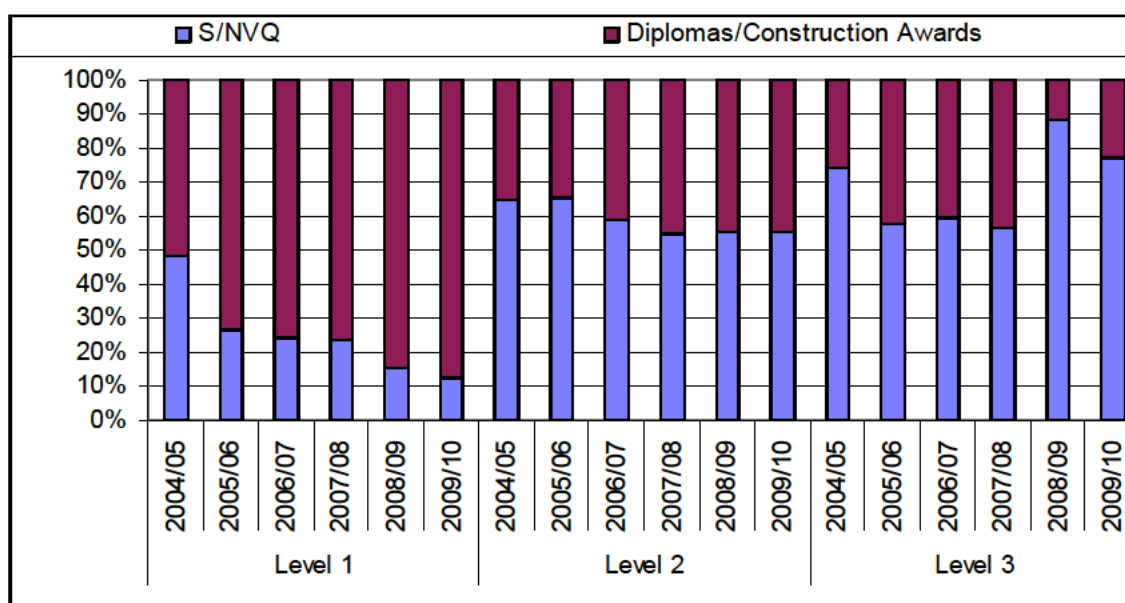
⁹ Leitch Review of Skills: Prosperity of all in the global economy – world class skills (December 2006) www.hm-treasury.gov.uk/leitch

Mode of Study

Diplomas/Construction Awards are qualifications for craft occupations that can be completed part-time or full-time, but they do not include any proof of work undertaken on site, as opposed to the S/NVQ framework, which requires on-site experience/assessment. There are three levels of Diplomas/Construction Awards in-line with the S/NVQ system – Foundation (Level 1), Intermediate (Level 2) and Advanced (Level 3).

Of the 28,416 starters undertaking construction craft training in England and Wales, 16,026 (56%) are studying for a Diploma/Construction Award. In other words, **44% of first-year craft trainees are involved in work-based training**. This year the proportion of starters undertaking a Diploma/Construction Award has increased slightly.

Chart 5 – Proportion of first-year trainees split by work-based training 2004/2005 to 2009/2010 (Craft training in England and Wales)



Note: Diplomas/Construction Awards are not available in Scotland, therefore all data for work-based training excludes Scottish trainee figures.

As a proportion of starters in each level, there are more undertaking a Level 1 Diploma/Foundation Construction Award. This has increased quite substantially since 2004/05 and now stands at 88% of all starters on a Level 1 qualification. While the share on a Level 2 has remained broadly static, conversely over the past few years the proportion of starters on a Level 3 has been very sporadic.

It should be noted that this survey is undertaken at the beginning of the academic year, therefore, the numbers on Diplomas/Construction Awards may decrease as the year progresses and more trainees are placed with employers. Thus trainees will move into the relevant NVQ Level qualification.

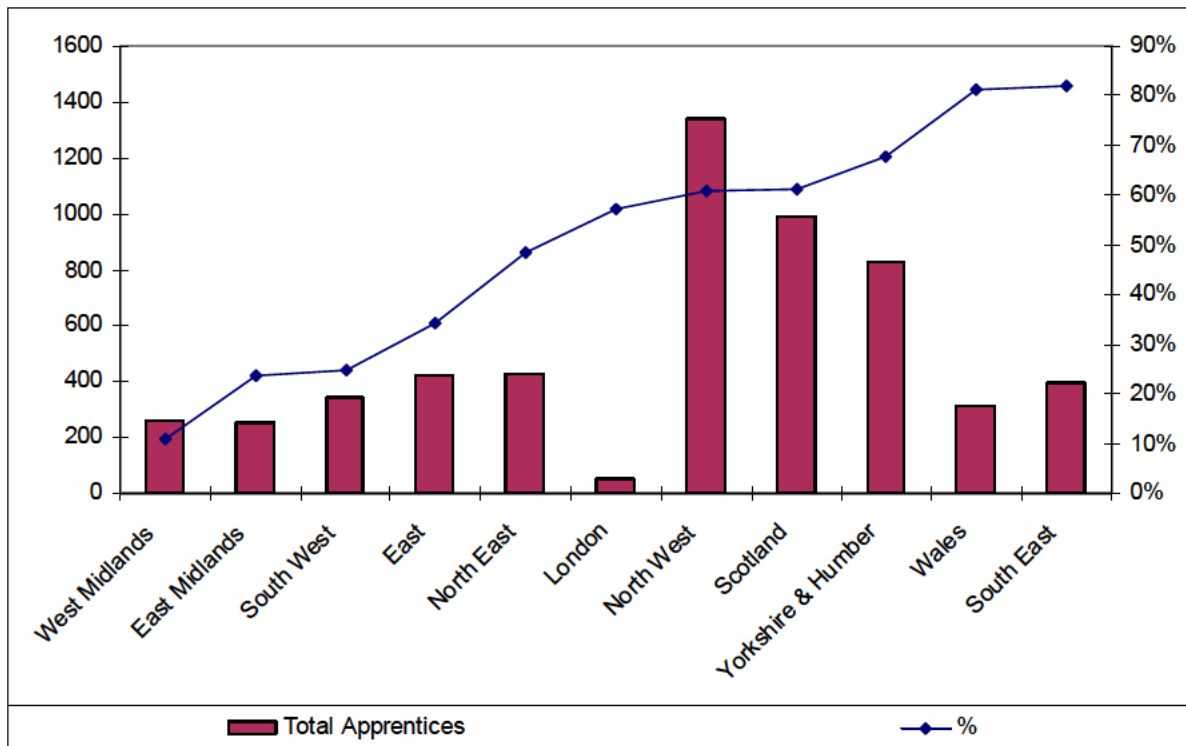
Apprentices

Overall, there are 5,611 first-year trainees following an apprenticeship programme (44% of the total number of S/NVQ Level 2 and Level 3 trainees).

Of the total number of apprentices, 4,055 (72%) are undertaking a Level 2 qualification with the remaining 1,556 (28%) on a Level 3. These shares are very similar to the previous academic year (69% and 31% respectively). However, as a proportion of the total number of starters undertaking each level, 41% of Level 2 trainees are following an apprenticeship programme which increases to 52% of all Level 3 trainees.

Chart 6 shows the absolute number of trainees following an apprenticeship programme and their share of all craft training at both S/NVQ Level 2 and Level 3. This highlights that while the North West has the largest number of apprentices (1,338) who account for 24% of all apprentices, the South East has the highest proportion of Level 2 and Level 3 first-year trainees following an apprenticeship programme (82%).

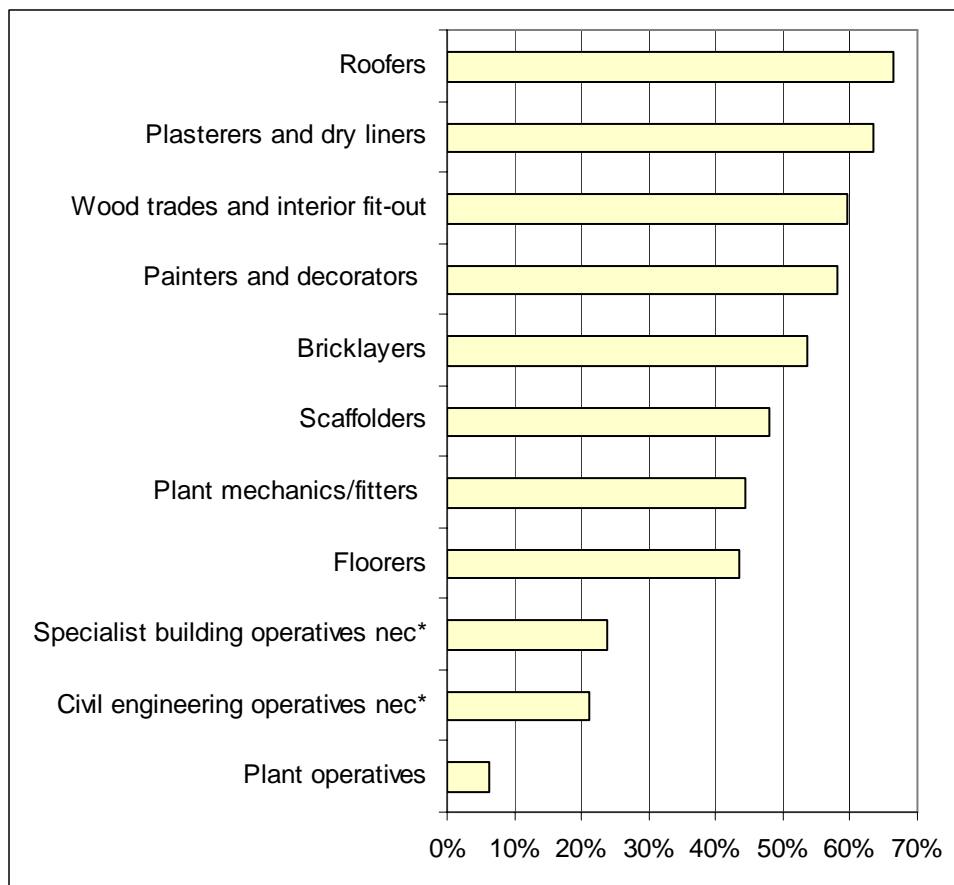
Chart 6 – Number and proportion of first-year trainees following an apprenticeship programme by area 2009/2010 (Total of S/NVQ Level 2 and Level 3)



Note: Chart 6 only refers to qualifications which are available at S/NVQ Level 2 and Level 3.

Analysis by occupation shows that apprentices are more likely to be found in the building craft trades (Plastering and dry lining, Bricklaying, Painting & decorating and Wood trades) accounting for 82% of all apprentices (see Chart 7). This has consistently been the trend, since 2005/06 they have represented over 80% of all apprentices.

Chart 7 – Proportion of first-year trainees following an apprenticeship programme by occupation 2009/2010 (Total of S/NVQ Level 2 and Level 3)



Note: Chart 7 only refers to qualifications that are available at both S/NVQ Level 2 and Level 3.

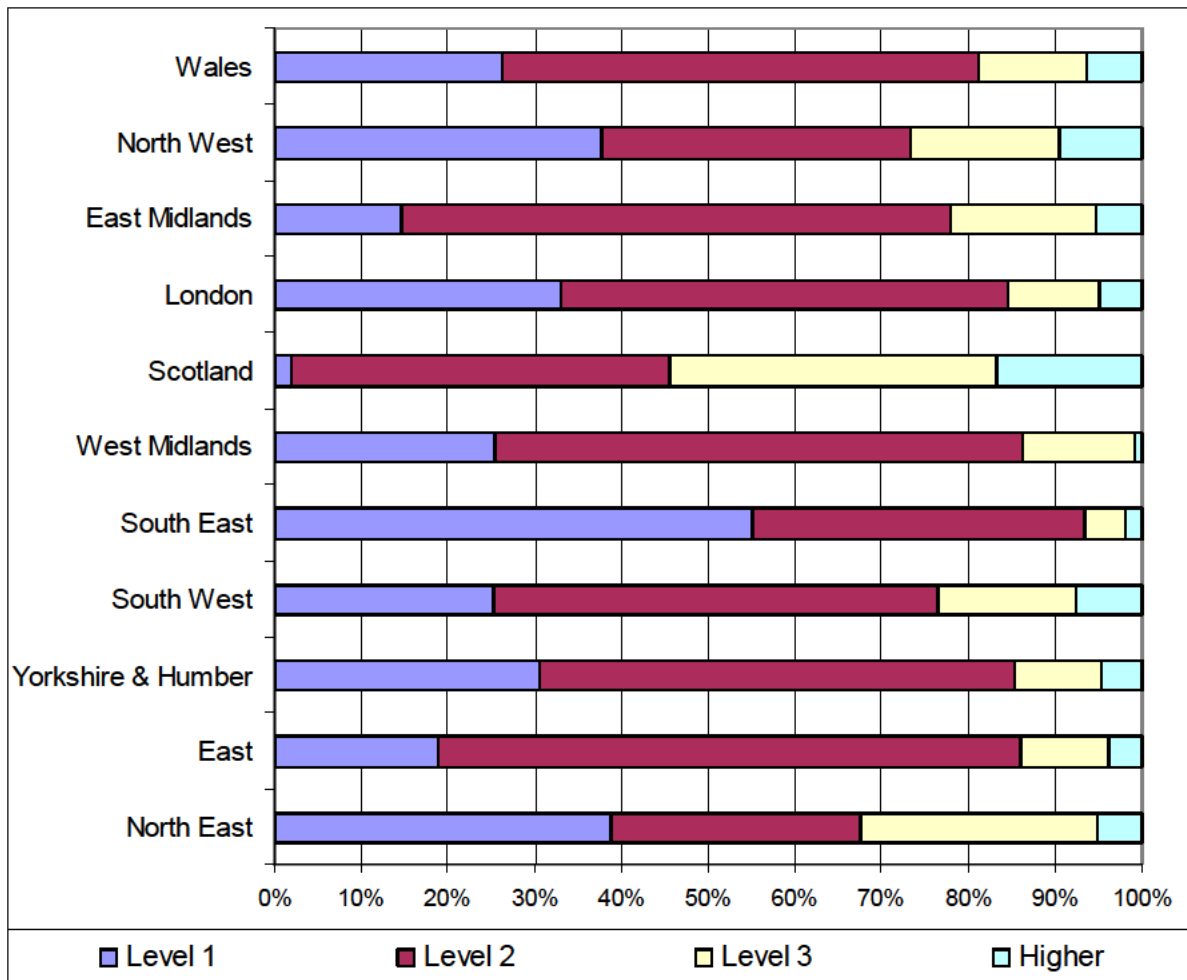
Unsurprisingly, the occupation with the largest absolute number of apprentices is wood trades (2,632), as would be expected given their dominance of the training figures (see Table 2). Although, as shown in Chart 6, roofers have the greatest share of trainees undertaking an apprenticeship programme (67%).

Geographical considerations

As mentioned at the beginning of the report, the number of first-year trainees is collected from colleges, private training providers and construction industry training centres across Great Britain. This data is then analysed by the numbers in the training establishments within each Regional Development Agency (RDA) area in England, Scotland and Wales.

The North West has the largest share of first-year trainees while London has the smallest share – accounting for 19% and 2% of the total number of trainees respectively.

Chart 8 – First-year trainees by level of qualification and geographical area: 2009/2010 (Great Britain)



See figure 1 in Appendix for a visual representation of the total number of first-year trainees by geographical area.

Chart 8 highlights how Scotland differs to the other areas by having the smallest share of trainees on an SVQ Level 1 and SVQ Level 2 but the largest share undertaking qualifications at Level 3 and above.

Conversely the South East only has 7% of its trainees undertaking qualifications at Level 3 and above but over half (55%) starting on a Level 1 qualification.

First-year trainee characteristics

In addition to collecting data on the type of training new entrants start each academic year, the Trainee Numbers Survey also captures first-year trainee characteristics as defined by their age, gender and ethnic minority.

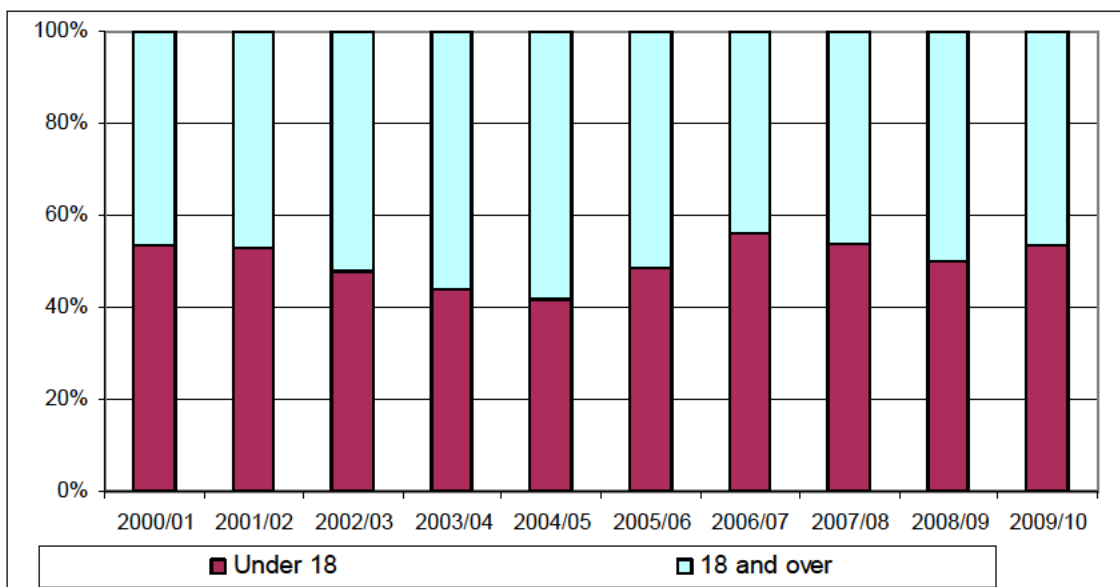
Age

The survey asks respondents to breakdown the number of starters undertaking each qualification into two, broad age categories:

- Under 18 years
- 18 years and over.

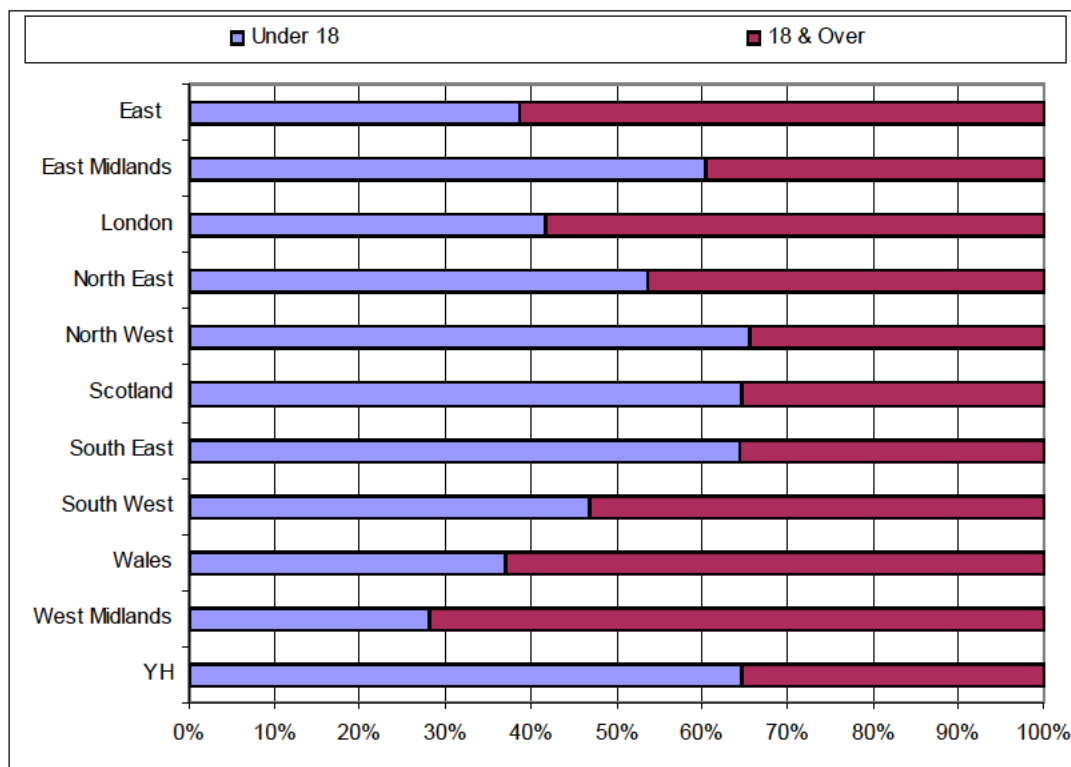
In 2009/2010 there were slightly more starters aged under 18 years. (54%). However as highlighted in Chart 9 the breakdown of first-year trainees by age over the past ten years has been fairly consistent at a 50/50 split.

Chart 9 – Age of first-year trainees as a proportion of total 2000–2009 (Great Britain)



Split by geographical area, Chart 10 shows that as a proportion of all starters in the area, Yorkshire and Humber, the South East, Scotland and the North West all have over 60% of starters aged under-18 years, while the West Midlands has the highest proportion of adults, accounting for nearly three-quarters of their trainees (72%).

Chart 10 – Age of first-year trainees by geographical area 2009/2010 (Great Britain)



Gender

The number of first-year trainees broken down by gender is shown in Table 3.

Table 3 – Number of first-year trainees broken down by gender and age 2009/2010 (Great Britain)

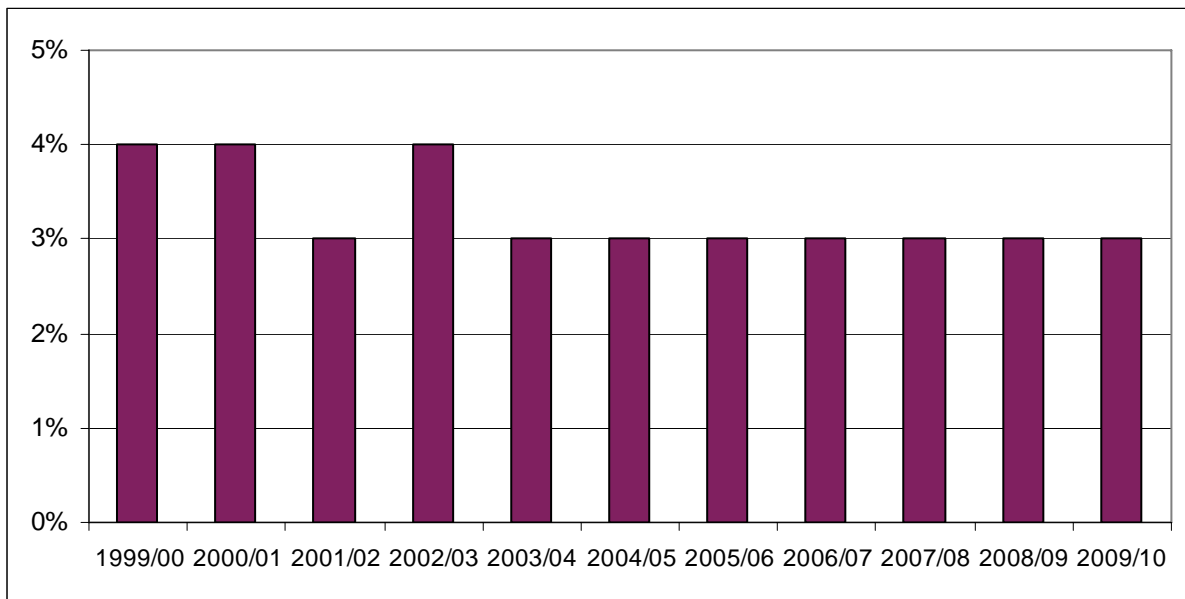
Under 18 years		18 years and over		Total	
Male	Female	Male	Female	Male	Female
18,190	386	15,588	547	33,778	933
52%	1%	45%	2%	97%	3%

Table 3 shows that in the academic year 2009/2010 there were 933 (3%) female starters compared to 33,778 (97%) males. These proportional splits have remained unchanged since 2003/2004, as depicted in Chart 10, which also shows how the share of female starters has remained between 3% or 4% since 1999/2000.

The proportion of women entering construction training is lower than their representation within the construction workforce where they currently account for 10% of employment in Great Britain^h.

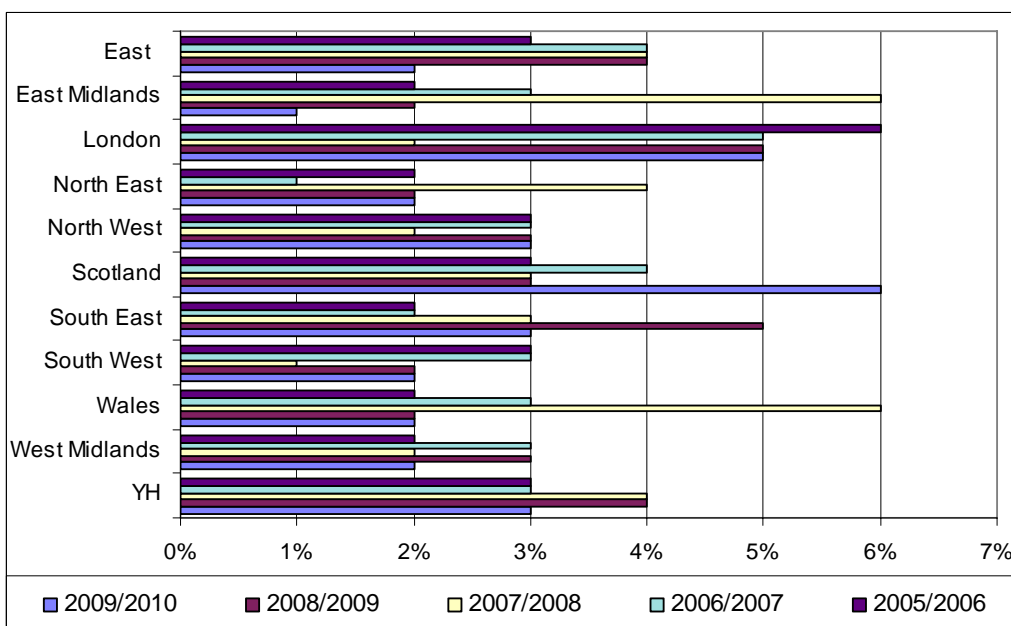
^h Labour Force Survey, 4 quarter average to Spring 2009 (SIC45) Great Britain

Chart 11 – Female first-year trainees as a proportion of the total number of first-year trainees 1999–2009(Great Britain)



Analysis by geographical area shows that in 2009/2010 the North West has the highest absolute number (184) of female starters, accounting for 20% of the overall number of female starts. As a proportion of trainees in the area, London and Scotland both had a higher than average share of females (5% and 6% respectively) whereas the East Midlands had the smallest share, at only 1%. Across the remaining areas of Great Britain, the majority are consistent with the average figure of 3%, as highlighted in Chart 12. Barring a dramatic decrease in 2007/2008 to 2%; London has consistently had the highest proportion of female starters over the past five years. The most notable change this year has occurred in Scotland which has increased its share of female trainees to an all time high of 6%, although as witnessed by changes in other areas over the five year period, this may not be sustained.

Chart 12 – Female first-year trainees as proportion of all trainees by geographical area (Great Britain: Five-year trend)

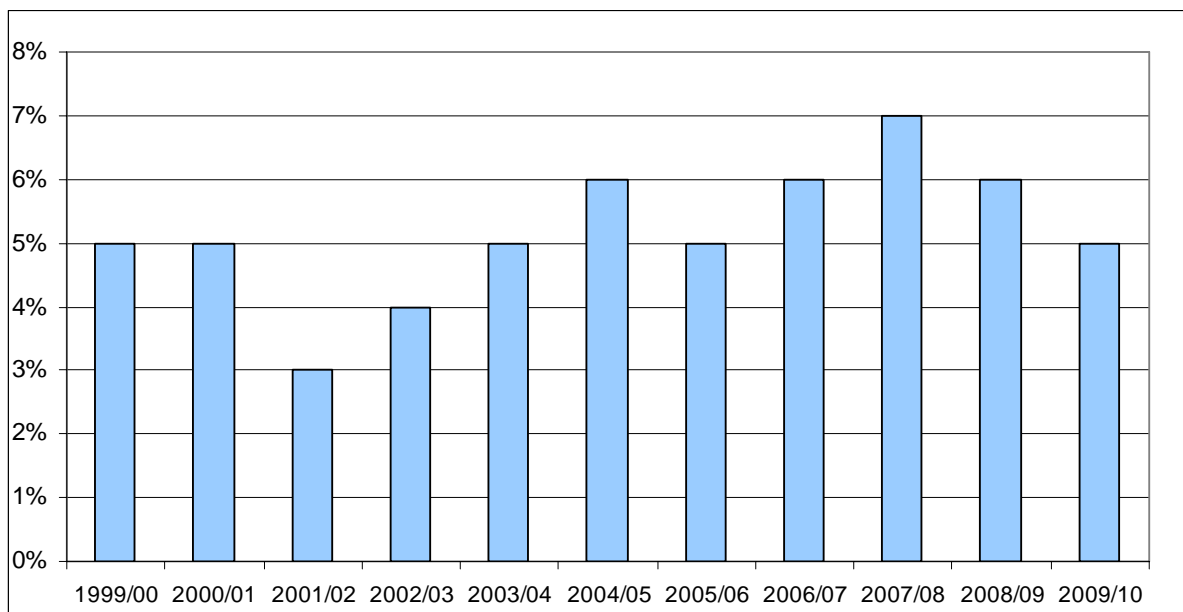


Analysis by occupation illustrates that female starters were far more likely to be studying towards a professional occupation. Females represented 11% of all starters on a professional qualification, ranged from 9% of Civil Engineers to 40% of all Surveying trainees. Within the craft trades, females were more likely to be on painting and decorating courses (10%). These findings are consistent with the representation of females in the construction workforce. The Labour Force Survey (Spring 2009) employment by occupation data illustrates that painting and decorating is the craft trade which has the highest representation of women (2%), it also highlights that females are more likely to be employed in a professional occupation, for example 10% of Civil Engineers are femalesⁱ

Ethnic minorities

The number of first-year trainees who are from an ethnic minority stands at 1,859 in 2009/2010 or 5% of the total. During the past ten years the share of ethnic minorities in construction training has been fairly consistent – averaging 5%. This is identical to their representation within the construction workforce.

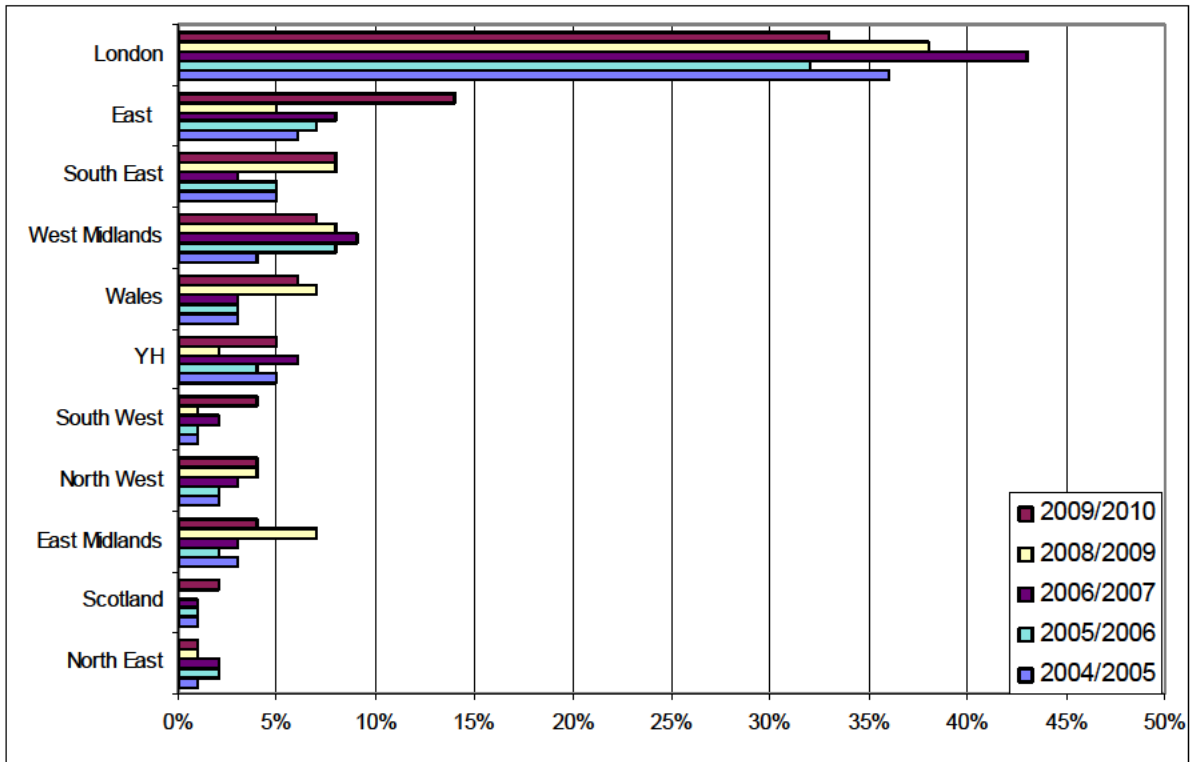
Chart 13 – Ethnic minority first-year trainees as a proportion of all first-year trainees 2000-2009 (Great Britain)



London has the highest proportion of ethnic minority starters. In fact, as Chart 14 shows, there is a large disparity between the share of ethnic minority first-year trainees in London compared to those in the other areas across Great Britain. As a proportion of all first-year trainees in London, those from an ethnic minority account for 33%, which is much higher than the other areas, where ethnic minority starters account for less than 15%. This has been a consistent trend over the past five years, as shown in Chart 13.

ⁱ Labour Force Survey, 4 quarter average Spring 2009 Great Britain

Chart 14 – Ethnic minority first-year trainees as proportion of all first-year trainees by geographical area (Great Britain: Five-year trend)



Section 2: Forecasted Demand for Craft and Technical Construction Training 2010–2014

ConstructionSkills, through the Construction Skills Network^j, publishes a forecast of the likely demand for skilled construction workers over the next five years – the longest period over which such a forecast can reasonably be made. The forecast, which is made in partnership with Experian, uses data derived from foreseeable economic and industrial factors on employment. A subset of the current published forecasts is reproduced in the following two tables: Table 4 (by geographical area) and Table 5 (by construction trades).

Table 4 – Requirement for skilled manual trades by geographical area (Great Britain)

	Total employment		Average annual requirement
	2010	2014	2010-2014
East	95,950	102,180	3,460
East Midlands	59,930	63,160	2,020
London	102,860	98,890	1,500
North East	44,770	46,080	1,830
North West	87,670	87,260	2,790
Scotland	95,930	101,820	4,610
South East	126,730	124,110	1,210
South West	91,160	89,090	1,080
Wales	56,820	60,930	2,330
West Midlands	69,030	72,310	1,400
Yorkshire & Humber	78,160	80,780	1,200
Total	909,010	926,610	23,430

Source: ConstructionSkills Employment Model, 2010

Note: Table 4 is a subset of the table that appears in Blueprint for UK Construction Skills 2010-2014 report. It covers only the skilled manual trades and excludes managers, clerical staff, technical staff and professional occupations.

See figure 2 in Appendix for a visual representation of the total number of first-year trainees by geographical area.

^j Construction Skills Network, Blueprint for UK Construction Skills 2010 to 2014
www.cskills.org/uploads/csn2010-2014national_tcm17-18127.pdf

Table 5 – Requirement for skilled manual trades in the construction trades (Great Britain)

	Employment forecast		Average annual requirement 2010-2014
	2010	2014	
Main trades			
Wood trades and interior fit-out	247,840	243,620	4,410
Bricklayers	77,660	73,140	2,020
Building envelope specialists	82,900	78,640	990
Painters and decorators	125,920	127,240	3,720
Plasterers and dry liners	38,190	38,830	860
Main trades total	572,510	561,470	12,000
Specialist building trades			
Roofers	39,200	37,180	230
Floorers	35,970	33,500	1,360
Glaziers	38,400	36,130	1,050
Specialist building operatives nec*	52,870	49,370	880
Specialist building trades total	166,440	156,180	3,520
Civil engineers			
Scaffolders	20,540	25,920	980
Plant operatives	42,900	54,580	2,850
Plant mechanics/fitters	30,940	32,180	930
Steel erectors/structural	25,820	26,590	760
Civil engineering operatives nec*	49,860	69,690	2,390
Civil engineers total	170,060	208,960	7,910
Total	909,010	926,610	23,430

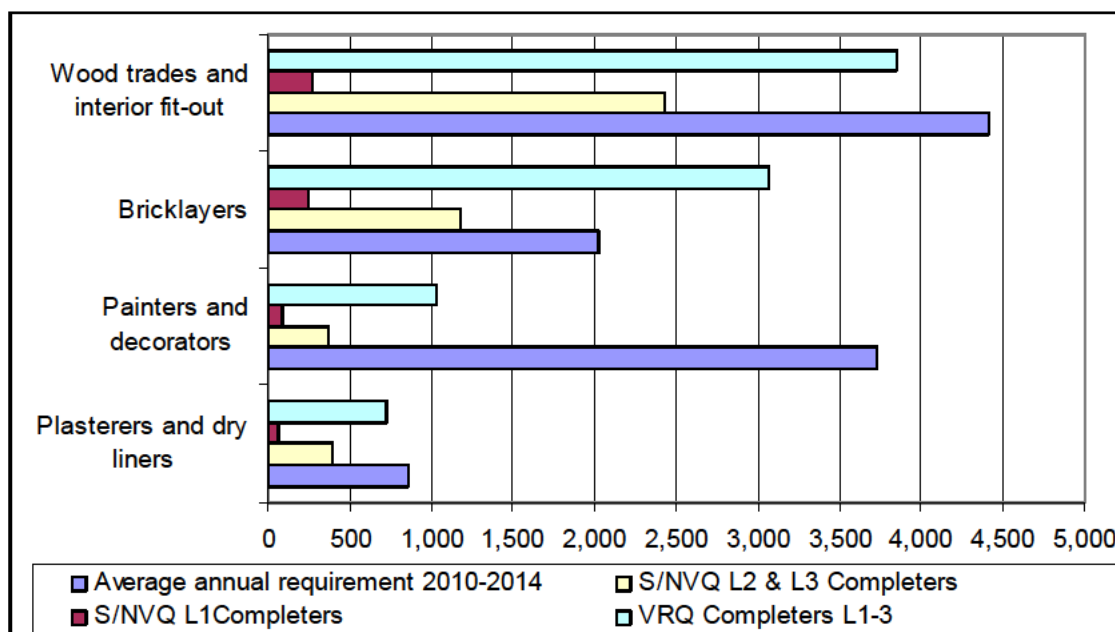
Source: ConstructionSkills Employment Model, 2010

Note: Table 5 is a subset of the table that appears in Blueprint for UK Construction Skills 2010–2014 report. It covers only the skilled manual trades and excludes managers, clerical staff, technical staff and professional occupations.

The industry needs to recruit over 23,000 new entrants annually in each of the next five years in order to meet demand for the occupations listed above. By analysing this projected demand, alongside the amount of training taking place in the industry, it is possible to assess the adequacy of current training provision in terms of quantity.

Charts 15 and 16 compare the average annual requirement for skilled manual trades against the expected number of successful completers from the 2009/10 intake of trainees.

Chart 15 – Average annual requirement for main construction trades (2010-2014) and expected successful learner outcomes from the 2009/10 trainee intake. (Great Britain)



Source: Construction Skills Network Model 2010; ConstructionSkills Trainee Numbers Survey 2009/2010; Learning and Skills Council

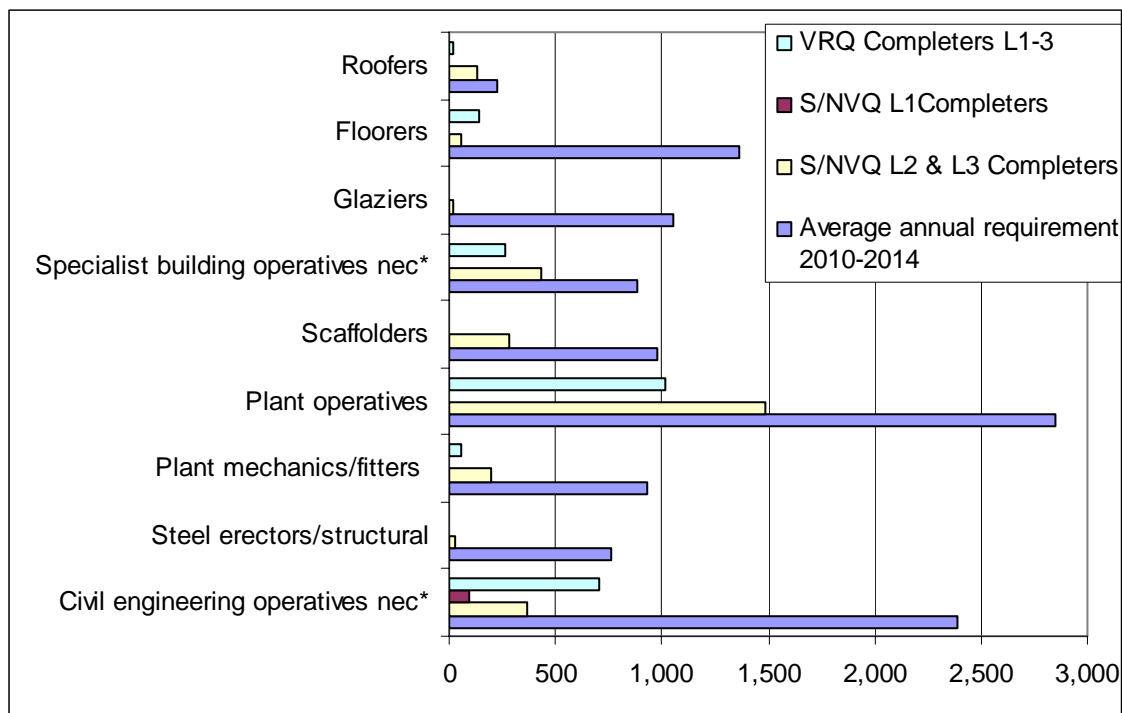
The bottom bar of the chart shows the average number of skilled workers that will be required to join the industry each year between 2010 and 2014. The remaining three bars show the expected number of completers across both S/NVQ and VRQ qualifications at Levels 1, 2 and 3. S/NVQ Level 2 and Level 3 completers are assumed to have been trained to a level where their skills are considered acceptable to work productively in the industry. As can be seen, none of the main trades are forecast to train sufficient S/NVQ Level 2 and Level 3 trainees to meet demand. Even with the addition of the S/NVQ Level 1 completers, whom are not considered sufficiently trained to meet the needs of the industry, demand is still not being met via the S/NVQ route.

The top bar of Chart 15 gives the expected number of completers on a Vocational Related Qualifications (VRQs), akin to S/NVQ Level 1 qualifications these are not considered sufficient to meet the needs of the industry, but do, in conjunction with S/NVQ Level 1 qualifications, provide a route into training which gives employers some flexibility in making up the short-fall in future years.

The inclusion of VRQs in this analysis is staggering, as it highlights the considerable amount of VRQ training being undertaken within the main trades. VRQs alone exceed the requirement for bricklayers, whereas their inclusion with S/NVQs in both plastering and wood trades shows an oversupply. Only painting and decorating does not show sufficient training currently being undertaken across all qualification levels to meet demand over the next five years.

The main construction trades account for approximately two-thirds (64%) of all manual occupation training while specialist builders and civil engineers between them account for around a quarter (26%), and as Chart 16 shows, none of these occupations are training enough people to meet the demand for skilled workers.

Chart 16 – Average annual requirement for specialist construction trades and civil engineers (2010-2014) and expected successful learner outcomes from the 2009/10 trainee intake. (Great Britain)



Source: Construction Skills Network Model 2010; ConstructionSkills Trainee Numbers Survey 2009/2010; Learning and Skills Council

As mentioned above no Specialist and Civil Engineering trades are training sufficient people to meet forecasted demand, even with the combination of all types and levels of qualifications. Whilst Plant Operatives would appear to be training the largest share of people (88% of demand is met by the total supply), the average annual requirement figure represents the demand for skilled plant operatives in construction only; whereas approximately half of those currently in training will enter employment in another industry (e.g. agriculture, manufacturing, mining and quarrying).

The shortfall is greatest amongst steel fixers and glaziers, where formal training at Further Education colleges and private providers meets only 3% and 2% respectively.

The shortage of training places in civil engineering and specialist trades is exacerbated by the fact that there is little training available for these trades outside of the National Construction College and a very small number of specialist training centres.

Section 3: Construction Training Capacity 2009/2010

In recent years the construction industry has trained insufficient people to meet the demand for trained workers. The resultant shortfall has been made up in various ways, for example by people working more hours, or delaying retirement, or more recently by using skilled migrant workers.

The current decline in construction employment has meant that the shortfall in construction training is less of an issue in the short-term in the main trades (as seen in some migrant workers returning home), although it is still a very real problem in the specialist and civil engineering occupations. While training capacity is not at present a limit to training, it is still informative to look at the number of applicants to construction courses as a measure of interest in working in construction, and ultimately as a measure of the industry's ability to meet demand for skilled workers when the economic circumstances improve.

This section summarises the findings of the capacity questions from the Trainee Numbers Survey. The results are based upon the responses of 124 training providers across Great Britain and applied to the overall results from the main survey. It covers only the skilled manual trades.

Table 6 shows that in 2009/2010 there were nearly 39,000 applicants for approximately 30,500 places on construction courses in the skilled manual trades, or 1.3 applicants for every place.

Table 6 – Applicants and starters to skilled manual trade courses 2009/2010 (Great Britain)

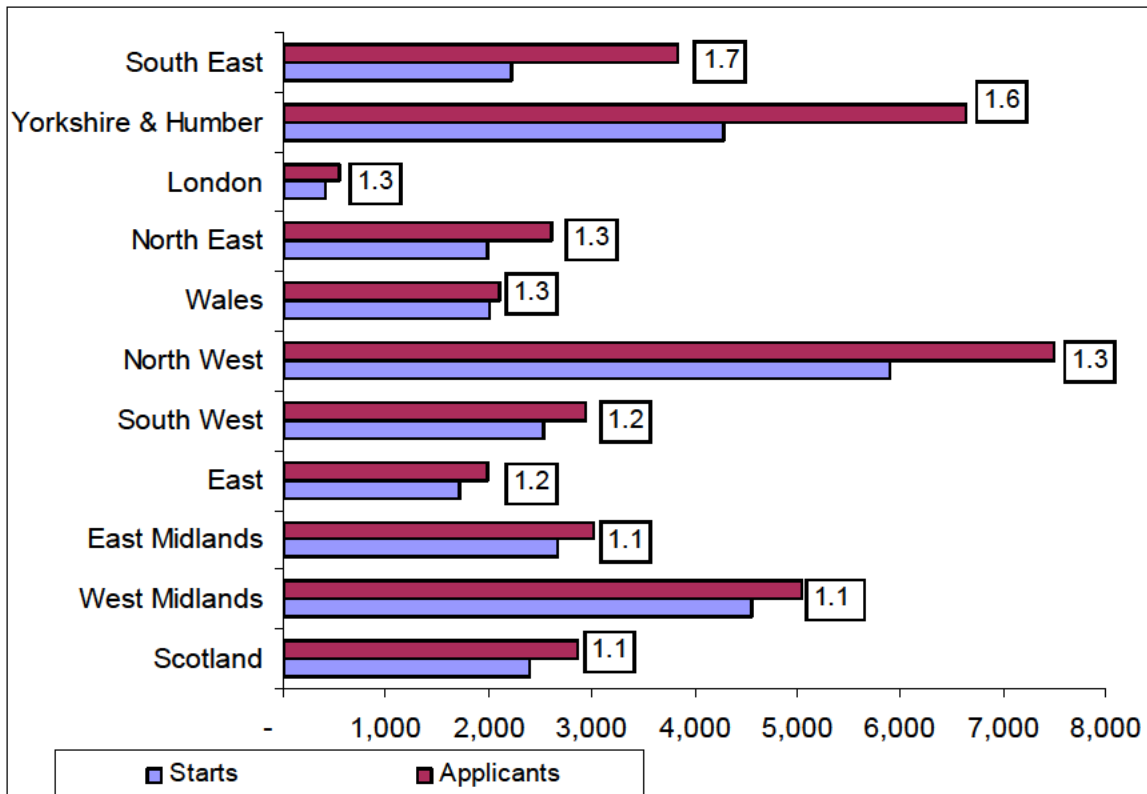
Occupations	Applicants	Starters	Applicants per starter
Wood trades and interior fit-out	13,829	10,234	1.4
Bricklayers	9,939	7,668	1.3
Painters and decorators	3,019	2,511	1.2
Plasterers and dry liners	2,821	1,938	1.5
Main Trades Total	2,9609	22,351	1.3
Roofers	294	254	1.2
Floorers	392	324	1.2
Glaziers	30	30	1.0
Specialist building operatives nec*	1,155	1,057	1.1
Specialist Operatives Total	1,871	1,665	1.1
Scaffolders	575	502	1.1
Plant operatives	4,018	3,847	1.0
Plant mechanics/fitters	416	412	1.0
Steel erectors/structural	39	39	1.0
Civil engineering operatives nec*	2,341	1,797	1.3
Civil Engineering Operatives Total	7,388	6,597	1.1
	38,868	3,6,13	1.3

Source: ConstructionSkills Trainee Numbers Survey 2009/2010.

Applicants by geographical area

Looking at training capacity in the skilled manual trades (as highlighted in Table 6) on a geographical basis, the South East is the most oversubscribed area, with 1.7 applicants for every place at a construction-training provider. The South East has consistently been the most oversubscribed area over the past few years with 1.6 applicants for starters in both 2008/2009 and 2007/2008. The least oversubscribed geographical areas are East and West Midlands and Scotland with just 1.1 applicants for every place.

Chart 17 – Applicants and Starters by geographical area 2009/2010



Source: ConstructionSkills Trainee Numbers Survey 2009/2010

See figure 3 in Appendix for a visual representation of the total number of first-year trainees by geographical area.

Work experience placements

To achieve an S/NVQ, trainees need to demonstrate competence in the workplace and, therefore, need either an employer or a work placement. In England and Wales, if trainees are unable or do not need to find a work placement, then their route into training is via the Diploma/Construction Award route, which does not include the work-based site element of NVQs, although for those wishing to make a career in construction they will need an additional period of site experience (via a Programme-Led Apprenticeship) to convert this to a full NVQ.

The research asked respondents about the number of work placements that they required for trainees undertaking a Level 2 Diploma/Intermediate Construction Award (the standard route into a Programme-Led Apprenticeship), so that they could move to a full NVQ Level 2 qualification if required.

Of the 7,363 students studying for a Level 2 Diploma/Intermediate Construction Award in England, a quarter already worked in the industry. Of the remainder only 1,648 actually required a work placement of which only 425 (26%) were expected to be achieved while the student was studying at college.

Interestingly this could be a positive sign, in that there appears to be a large pool of trainees who will be in a strong position to move to a Programme-Led Apprenticeship when the economic environment improves and employers begin to recruit apprentices in greater numbers than today.

Table 7 – Level 2 Diplomas/Intermediate Construction Award (ICA) work experience placements by area 2009/2010 (England)

	Starters on Level 2 Diplomas	% already working in construction industry	Work Experience Placements		% Shortfall
			Required	Achieved	
East	131	27%	50	30	60%
East Midlands	552	12%	133	67	50%
London	98	40%	35	3	9%
North East	454	23%	117	14	12%
North West	1,908	18%	345	115	33%
South East	462	21%	139	18	13%
South West	433	0%	105	68	65%
Wales	887	7%	98	15	15%
West Midlands	1,413	70%	106	52	49%
Yorkshire & Humber	1,025	11%	520	43	8%
Total	7,363	25%	1,648	425	26%

There is considerable regional variation in the availability of work placements for trainees on a Level 2 Diploma/Intermediate Construction Award.

Section 4: Higher Education in the Built Environment

Student enrolments on built environment courses

The Higher Education Statistics Agency (HESA) is the official agency for the collection, analysis and dissemination of quantitative information about higher education.^k

Akin to information collected by the Trainee Numbers Survey showing starters on construction related vocational training courses (see Section 1), it is also possible to obtain data from HESA on student enrolments on built environment courses at higher education. Thus providing a complete picture of training in the built environment.

However, it should be noted that the HESA data reproduced here is for the academic year 2008/2009 while Trainee Numbers Survey figures refer to 2009/2010; hence direct comparison is not advisable. Additionally the HESA data covers the UK whereas the Trainee Numbers Survey is a measure of FE training across Great Britain.

Table 8 shows the number of starters at higher education institutions split by qualification aim and subject area. Overall there were nearly 30,000 students of which half (52%) were studying towards a first degree with a further quarter (25%) beginning a post graduate degree and a fifth (19%) starting on other undergraduate courses. The remaining 5% commenced a foundation degree.

Table 8 – Student enrolments on built environment courses by subject and qualification aim 2008/2009 (United Kingdom)

	Other Undergraduate	Foundation Degree	First Degree	Postgraduate Degree
Civil engineering	1,007	360	4,082	1,674
Architecture	940	50	4,248	1,696
Building	2,757	668	5,085	1,353
Landscape design	170	44	270	217
Planning (urban, rural & regional)	553	227	1,550	2,211
Others in architecture, building & planning	258	0	303	219
	5,685	1,349	15,537	7,371

Overall a building course was the most popular choice for students accounting for a third (33%) of the total number of starts. This pattern was consistent across all the undergraduate qualifications, whereas at Postgraduate level Planning courses had the largest share of starters.

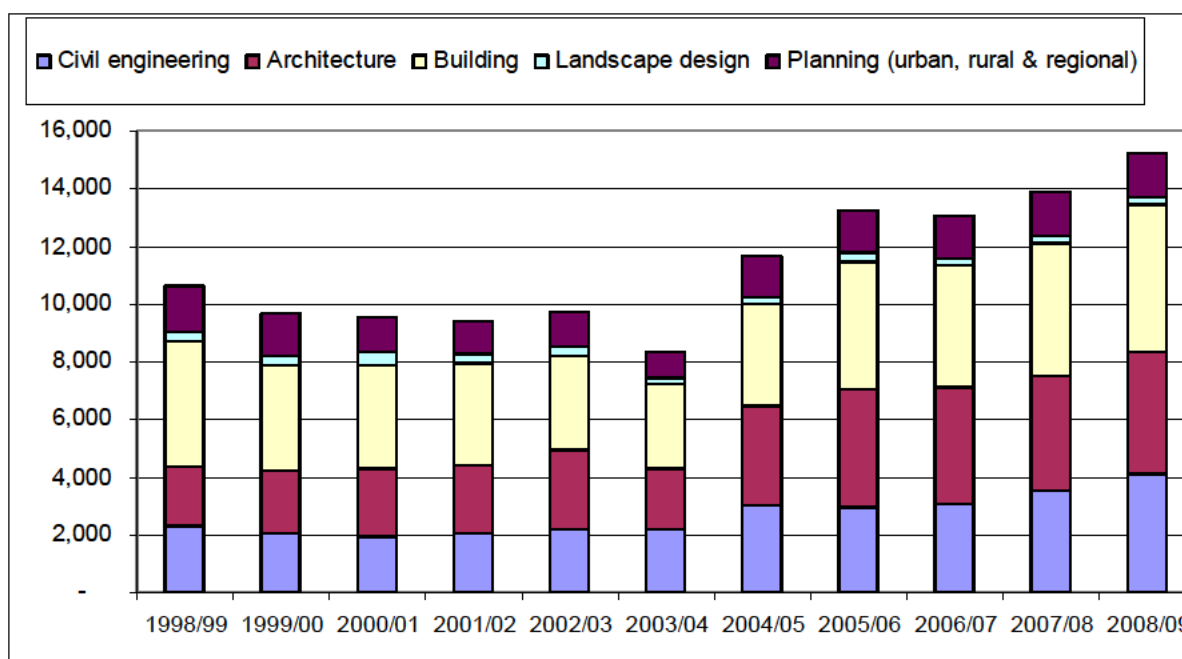
^k For more information see www.hesa.ac.uk

First Degree

This section looks in more detail at First Degrees as these represent the largest share of higher education starters.

Chart 18 shows the eleven year trend of students starting built environment first degrees. As it highlights, the total number of undergraduates was fairly stable between 1998/99 and 2002/03 at around 10,000. Following a decrease in 2003/04 the numbers increased significantly the following year (by 40%) and continued this rise in 2005/06 to a high of 13,260, decreasing slightly (1%) in 2006/07 to 13,072. They now stand at just over 15,000 – their highest level over the time period.

Chart 18 – Student enrolments on built environment courses by subject 2008/2009 (United Kingdom)



The gender split of first degree starters remained unchanged over the four year period to 2008/2009 at roughly a quarter (24%) female to three-quarters male. By subject, Architecture was most popular for females, accounting for 43% of all female students whereas Building degrees had the highest proportion of males at just over a third (37%).

Chart 19 – Females enrolling on built environment courses by subject 2008/2009 (United Kingdom)

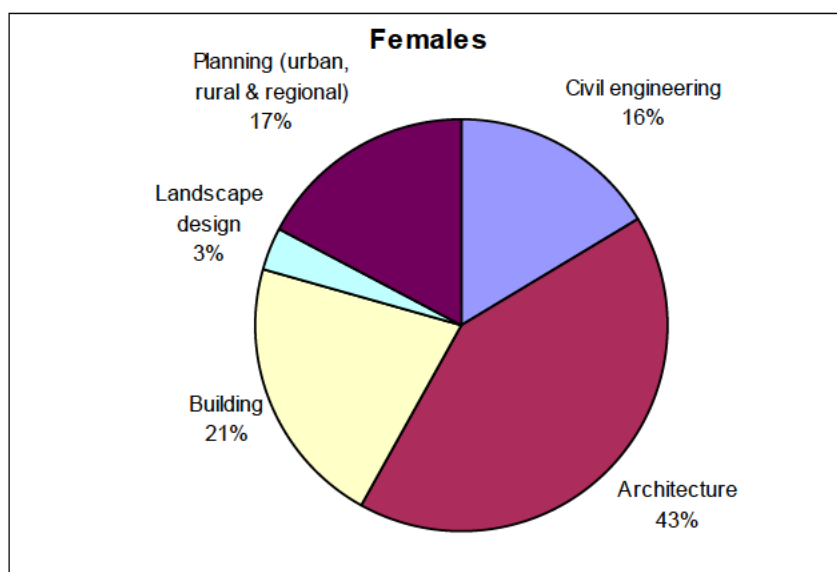
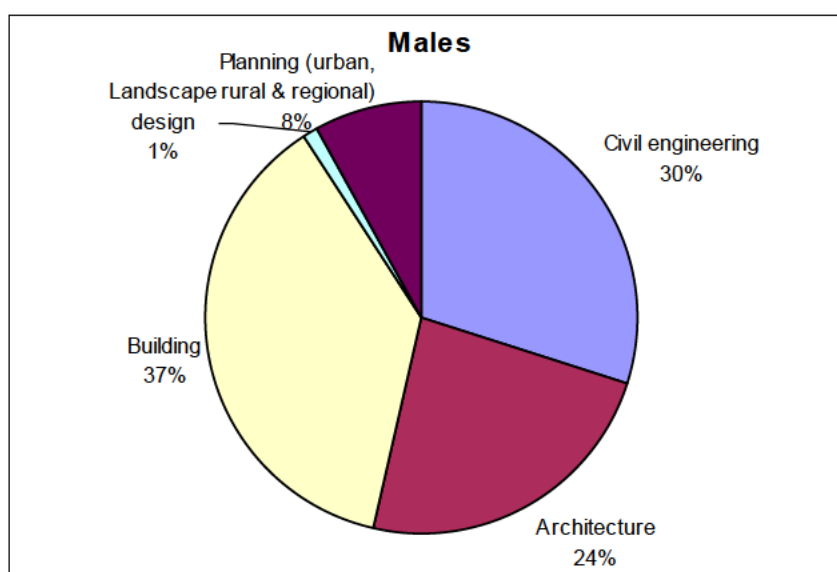


Chart 20 – Males enrolling on built environment courses by subject 2008/2009 (United Kingdom)



The ethnicity of undergraduates has also remained constant in the past four years with the largest majority (79%) classified as white and 18% from an ethnic minority (the remaining 3% are unknown). The largest ethnic minority groups - who account for a fifth of all ethnic minorities - are classified as 'Asian or Asian British – Indian' (20%) and Black or Black British – African (19%).

The representation of both females and students from ethnic minorities is higher at degree level than it is at craft and technical training (see Section 1). The Trainee Numbers Survey reports that 3% of craft and technical trainees are female and 5% are from an ethnic minority, compared to 24% and 18% respectively at degree level.

Conclusion

A further fall in construction training within the further education sector this year (2009/10) undoubtedly illustrates the effect of the recession and is certainly replicating the decline in training witnessed during the economic downturn of the early 1990s. Typically during a recession falls in training tend to lag falls in output; therefore further falls in training can not be ruled out. On the other hand, entrants onto first degrees in the built environment is at it's highest point in a decade. It can be argued that applications to degree courses would have been made long before the global economic downturn had impacted on the UK construction industry. Therefore, it is too early to state whether construction courses within the higher education sector will follow a similar pattern to that seen in further education.

Although the latest construction forecasts^l predict that the industry will begin a long and slow recovery in 2010, employment in the industry is likely to continue to fall until early 2011 and then pick up to 2014. Nevertheless, the construction industry still requires new staff to enter the industry each year in the most part due to an ageing workforce. It is imperative that the industry continues to train to ensure there are enough skilled and qualified workers to deliver the huge programme of planned investment that the country needs to remain competitive.

In the short to medium term, the recent budget statement (22nd June 2010) contained a commitment to the following transport projects:

- The upgrade of the Tyne and Wear Metro
- Extension of the Manchester Metrolink
- Redevelopment of Birmingham New Street station
- Improvements to the rail lines to Sheffield and between Liverpool and Leeds

However, it will not be until the results of the Comprehensive Spending Review are published on 20th October 2010 that the industry will get a clear idea of those programmes of work that will be most affected by spending cuts.

The external and economic factors affecting training appear to have also influenced the composition of further education training, where there has been a shift in qualifications being undertaken. Although S/NVQ Level 2 qualifications are still the most popular qualifications; and a barometer of competence to enter the industry; qualifications which do not require any work experience are becoming increasingly popular. Undoubtedly this is in response to the downturn in the industry and the lack of placements available with employers. Nowhere is this more evident than new entrants onto Apprenticeships which have decreased over the past three years from 62% of all S/NVQ Level 2 and Level 3 trainees in 2007/2008 to 44% in 2009/2010.

Recent ConstructionSkills research has found that around one in six employers (16%) expect someone to start an apprenticeship in the next 12 months, but only 4% thought this was very likely^m. Additionally around a third of companies interviewed in the Employer Panelⁿ (31%) had cut back on the planned recruitment of apprentices because of the recession. Given the scale of cut backs in the recruitment of apprentices, it is not surprising that two thirds of employers (64%) feel that there is currently an over-supply of people wanting to become apprentices.

Whilst the Trainee Numbers Survey does not provide a complete census of construction training within the further education sector, it is a valuable indicator of the wider situation.

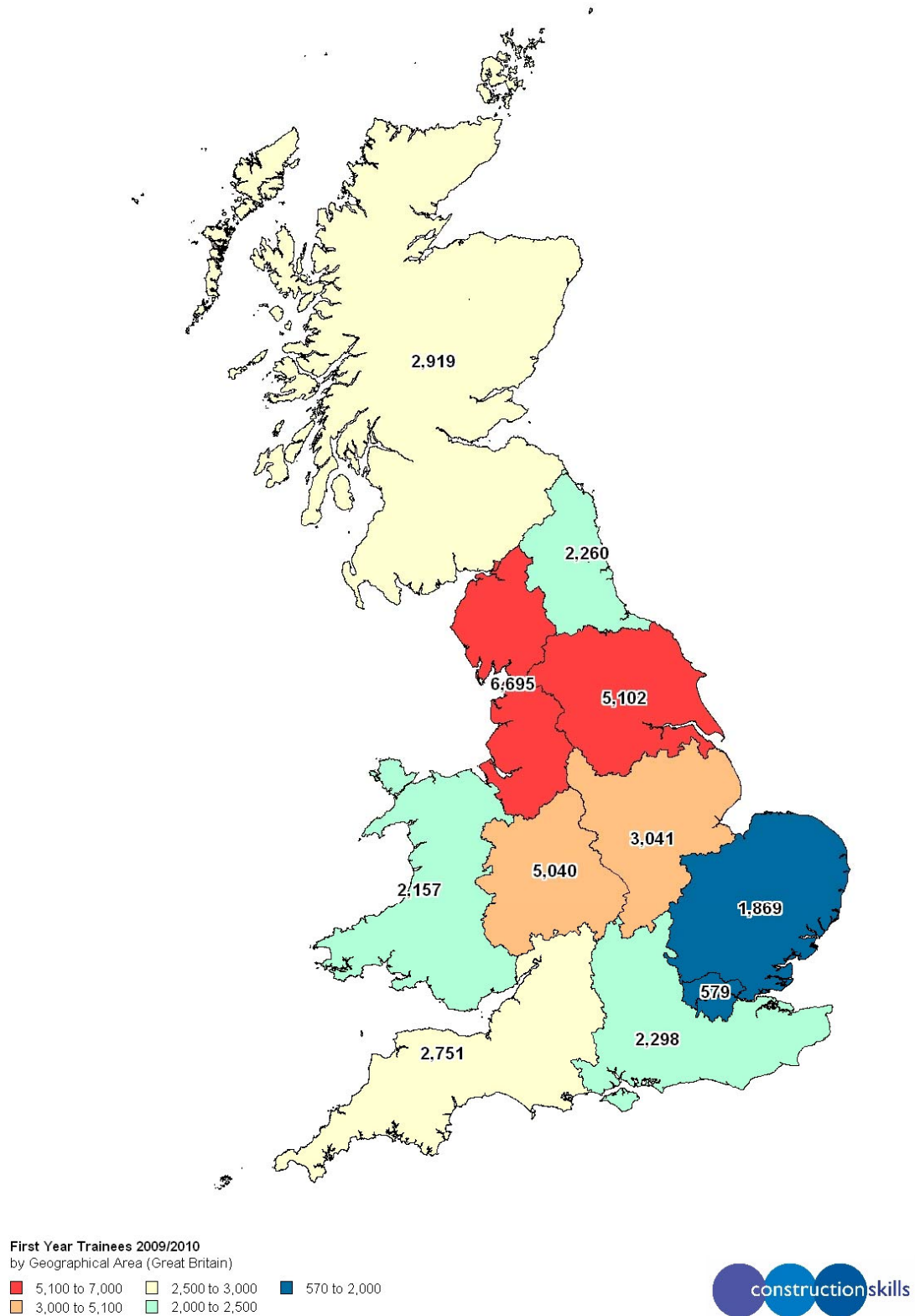
^l Construction Skills Network, Blueprint for UK Construction Skills 2010 to 2014

^m ConstructionSkills. Skills and Training in the Construction Industry 2009

ⁿ ConstructionSkills. Employer Panel: Employer Attitudes and Motivations to Learning and Training (Wave 9) November 2009

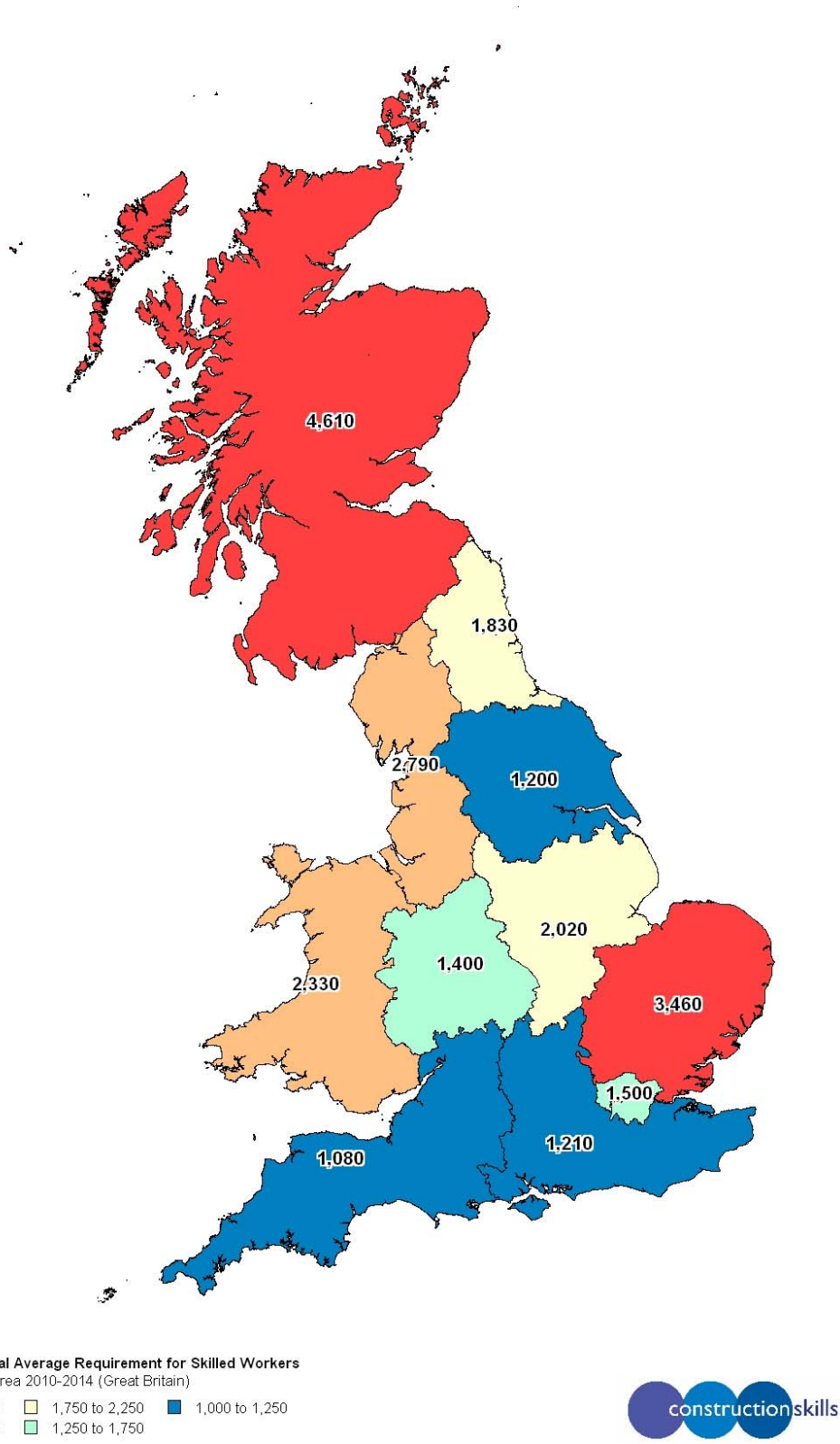
Appendix

Figure 1 – First-year trainees by geographical area 2009/2010 (Great Britain)



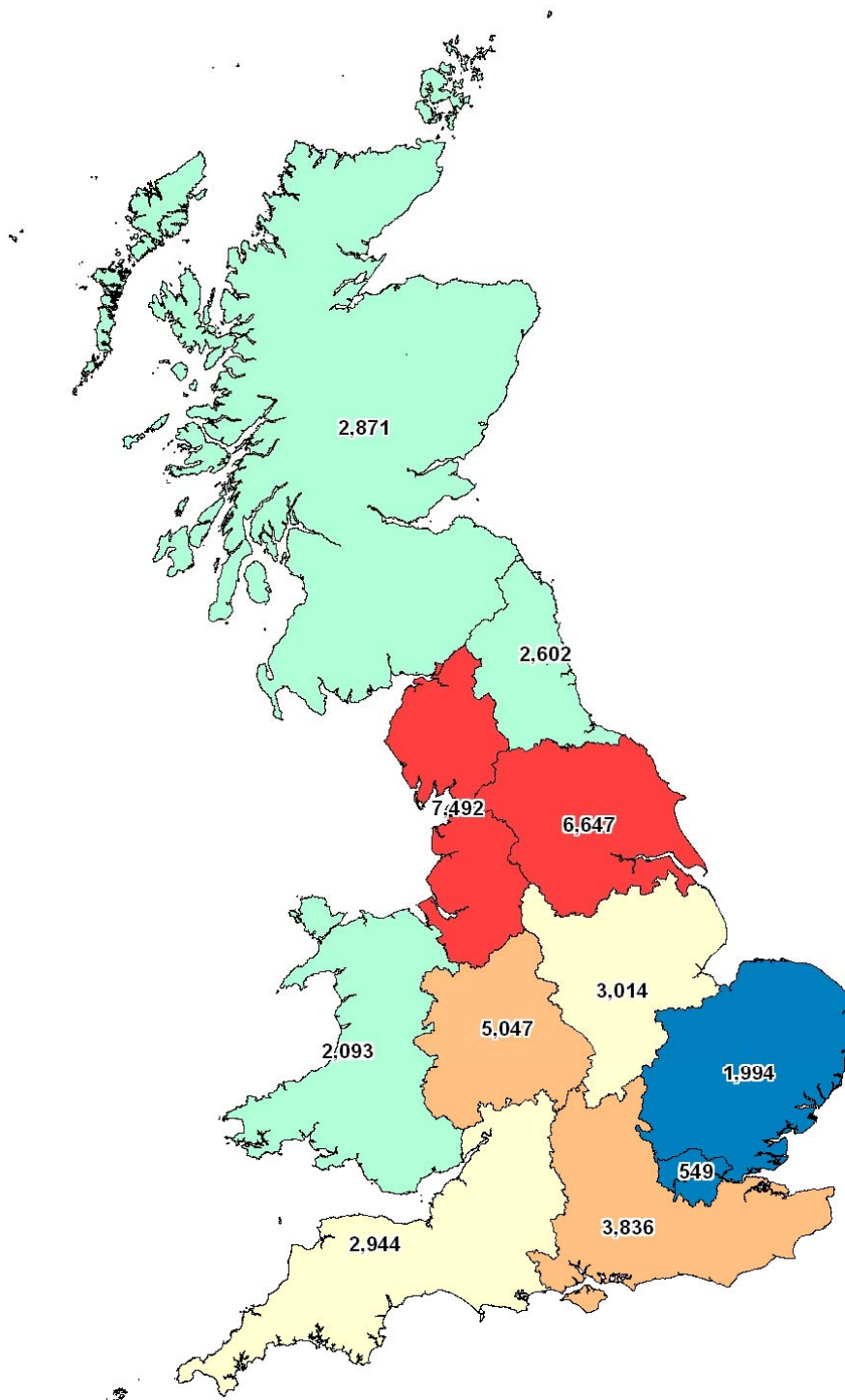
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Figure 2 – Forecasted annual average requirement for skilled manual trade workers by geographical area 2010-2014 (Great Britain)



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Figure 3 – Applicants to construction courses in the skilled manual trades by geographical area 2009/2010 (Great Britain)



Applicants to Construction Courses (Main Trades)
by Geographical Area 2009/2010 (Great Britain)

- 6,500 to 7,500
- 3,500 to 6,500
- 2,900 to 3,500
- 2,000 to 2,900
- 500 to 2,000



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