

Qualification achievements in Construction

2012 Update

July 2013





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Executive Summary

This update builds on the 2010 report by producing a view of training and education details specific to the construction sector¹ from 2007 through to 2011 and where possible, data for 2012.

The 2010 report noted challenges in producing this view due to the fragmented nature of data, especially for further education. While these challenges still exist, the work in building the 'evidence base' has continued because understanding the current view is a pre-requisite towards ensuring that the right training, both in quantity and relevance, is provided to equip industry with the workforce it needs.

This report looks to build on this view by grouping qualifications into three broad types:

- **Competence** – qualifications delivered by a training provider or further education establishment, for example NVQs, QCF: NVQ Certificates, QCF: NVQ Diplomas, or SVQs.
- **Knowledge** – qualifications such as Construction Awards, QCF Diplomas, QCF Certificates, and Higher National qualifications, usually delivered by a further education establishment.
- **Higher Education** – degree and postgraduate qualifications delivered by Universities.

Although the report presents analysis by these three broad areas, it should be noted that knowledge and competence are essentially aspects of the same thing, in that an individual develops a skill through either learning or training, which they then apply in a job context.

There was a clear increase in overall numbers of qualification achievement from 2007 through to 2009, mainly due to increasing numbers in further education, however after 2009 there has been a sharp decline.

In the short term the overall numbers of construction related training and education achievements look set to continue declining. This is indicated by the achievement and start trends for both further and higher education, with this decline being more noticeable for competence based and degree qualifications.

Although this is happening at a time when the general economy and construction sector is experiencing further recessionary effects, the decline in overall training comes at a time when wider research indicates a need for a more flexible and productive workforce, for example increasing importance of energy efficiency measures across the built environment. A key element in having a more flexible and productive workforce is making sure that it is equipped with the relevant skills and training for future needs, which indicates a possible tension with the trend of declining numbers.

This decline in numbers is being seen across all nations however there are some differences when it comes to the actual patterns and trends. In part this will be due to the fact that

¹ As defined by ConstructionSkills Standard Occupational Classification footprint.



education and training policy is devolved in each nation, especially in Scotland which is structurally different to other nations, although the relative numbers of people employed in the industry, performance and composition of the sector across the nations will also have an effect.

Public funding has played an important part in supporting qualification attainment for each nation and the indication is that this has become more important in recent years. Apprenticeships are an important part of public funding and play an increasing part in support for learners in Northern Ireland and Scotland when compared to England or Wales.

In contrast to further education, higher education appears to exhibit a more stable and consistent pattern. In part this will be due to the longer time periods for degree and postgraduate qualifications when compared to further education, however it will also be due to the data being presented in broader subject area groups which would smooth out some of the detail.

For both further education and higher education the emerging trends for declining numbers for the construction sector are a cause for concern as there is the potential for future skills shortages. Indications are that while the sector is still in recession, skills shortages are less of an issue for employers when compared to general business survival, however there are reports that show the sector still has skills shortages and hard to fill vacancies. When there is an upturn in business conditions it is likely that there will be an increase in skills shortages being reported as it generally takes some time before increasing demand filters through to training and education achievements. This highlights the continued need to be aware of the underlying picture as it emerges and how this relates to the demand that exists for training and education, especially if the sector is to stand any chance of moving towards more responsive, employer driven training and learning.

In terms of future work to improve the view of training and education supply for the construction sector, there are three main points that emerge.

1. New Workers

There is a significant amount of Level 1 Knowledge qualifications delivered in England and Wales, which is not evident in Northern Ireland (same qualifications) or Scotland (different structure).

- What part do Level 1 qualifications have towards an entry route for workers in England & Wales?
- Does it equip people with the right skills that industry is looking for?
- How, or should these qualifications fit with pre-Apprenticeship training?
- What is the employment destination of learners after further education – do they work in the sector?

2. Existing Workers

Training and education can never be solely focused on the training on new entrants, it also has to respond to the demand for training and career aspirations of existing workers in the sector. This is an important aspect given the high levels of self-employment in the sector along with over 95% of employers being classed as small to medium sized enterprises.



Being able to respond too, and meet this demand will be a critical aspect in ensuring that the construction and built environment sector has a suitably skilled, flexible and productive future workforce which is able to meet future challenges. This requires an understanding of;

- What are the drivers of future training demand likely to be for the sector?
- What is the anticipated scale of impact?
- How do people develop their skills or keep them up to date as they progress?
- What are the paths for career progression?
- What role does skill development play in the creation of successful businesses?

3. Government Support

There is a considerable amount of reform happening around further and higher education across all nations as they look to provide a structure that will deliver skills that will meet employer demand and deliver wider economic benefits. The analysis identifies that government support through the likes of public funding for learners has become increasingly important in recent years, however this is at a time of constraints on public finances.

- What is the future direction of support for learners?
- What is balance between public and private funding of training and education?



1. Introduction

This update builds on the 2010 report by producing a view of training and education details specific to the construction sector² from 2007 through to 2011 and where possible, data for 2012.

Since publication of the 2010 Skills Provision Committee report, there have been a wide range of initiatives that have impacted, or are set to impact, across the UK education and training landscape, such as;

- the introduction of apprenticeship standards in England and Wales (SASE & SASW);
- introduction of new qualification framework (QCF, CQFW, SCQF);
- a number of Reviews (Wolf, Richard, Holt, Wilson, McCormick);
- and a range of policies from governments such as;
 - Building a Smarter Future (Scotland – HE)
 - Post-16 Education (Scotland) Bill
 - New Challenges, New Chances (England – FE)
 - Students at the Heart of the System (England – HE)
 - Building Engagement, Building Futures (England – 16-24 year olds)
 - Review of Qualifications for 14 – 19 year olds (Wales)
 - Further and Higher Education (Wales) Bill
 - Success through Skills - Transforming Futures (Northern Ireland)
 - Graduating to Success: A Higher Education Strategy for Northern Ireland.

These initiatives have occurred at a time when the construction sector is experiencing a prolonged and deep recession, with significant reductions in workload and industry employment, and at a time when levels of young people (16–24 year olds) that are not in employment, education or training, are at an all-time high. These changes, combined with the macro economic conditions are having an influence on the number of people engaging with training and further education.

Given this context, the main aim of the Skills Provision Committee, in providing construction industry stakeholders with a clear and robust view on the number of people available to enter the construction industry through accredited³ training and education, remains as important today as it was in 2010.

The previous 2010 report noted challenges in producing this view due to the fragmented nature of data, especially for further education. While these challenges still exist, the work in building the ‘evidence base’ has continued because understanding the current view is a prerequisite towards ensuring that the right training, both in quantity and relevance, is provided to equip industry with the workforce it needs. From an employer’s perspective it is important that education and training is truly demand led in that it supports employers by providing skills that employers are looking for. From the perspective of people participating in

² As defined by ConstructionSkills Standard Occupational Classification footprint.

³ The term ‘accredited’ in this context refers to officially recognised UK based qualifications



education and training, it is important that learners are equipped with skills they can apply in the workplace, adding value not only to the employer but to the learner as well.

The previous report looked at qualification certification both in terms of the broad type of qualification and level of attainment. This report looks to build on this view by grouping qualifications into three broad types:

- **Competence** – qualifications delivered by a training provider or further education establishment, for example NVQs, QCF: NVQ Certificates, QCF: NVQ Diplomas, or SVQs.
- **Knowledge** – qualifications such as Construction Awards, QCF Diplomas, QCF Certificates, and Higher National qualifications, usually delivered by a further education establishment.
- **Higher Education** – degree and postgraduate qualifications delivered by Universities.

Note: when discussing the levels of particular qualifications the reference used is the National Qualification Framework (NQF) Level, which is consistent with the current level descriptors in both the QCF and CQFW and can be mapped against SCQF.

Although the report presents analysis by these three broad areas, it should be noted that knowledge and competence are essentially aspects of the same thing, in that an individual develops a skill through either learning or training, which they then apply in a job context. In this regard knowledge and competence underpins all qualifications from further education through to higher education.

However the distinction between Competence and Knowledge based qualifications is an important one to make for qualifications at all levels in the construction sector. Achievement of a competence based qualification is used to demonstrate work related skills, for example card schemes used by the sector such as CSCS or CPCS. This is an important aspect for a sector that has an extensive sub-contracted labour supply chain and a highly mobile workforce.

The report will also extend the previous analysis to occupational level where possible and cover a wider time frame to show underlying trends. Due to the differences in the further education and training structures with UK nations, and the way that data sets are produced, the report sets out the views for:

- Achievement of regulated further education qualifications in England, Northern Ireland and Wales, based on data from the regulatory body, Ofqual.
- Achievement of regulated further education qualifications in Scotland, based on data from the Scottish regulatory body, SQA Accreditation and also SQA Awards.
- Apprenticeship details for England, Scotland, Wales and Northern Ireland. Data sourced from public funding bodies for each nation.
- Higher Education enrolment and achievements in England, Scotland, Wales and Northern Ireland, with data sourced from Higher Education Statistics Agency (HESA).

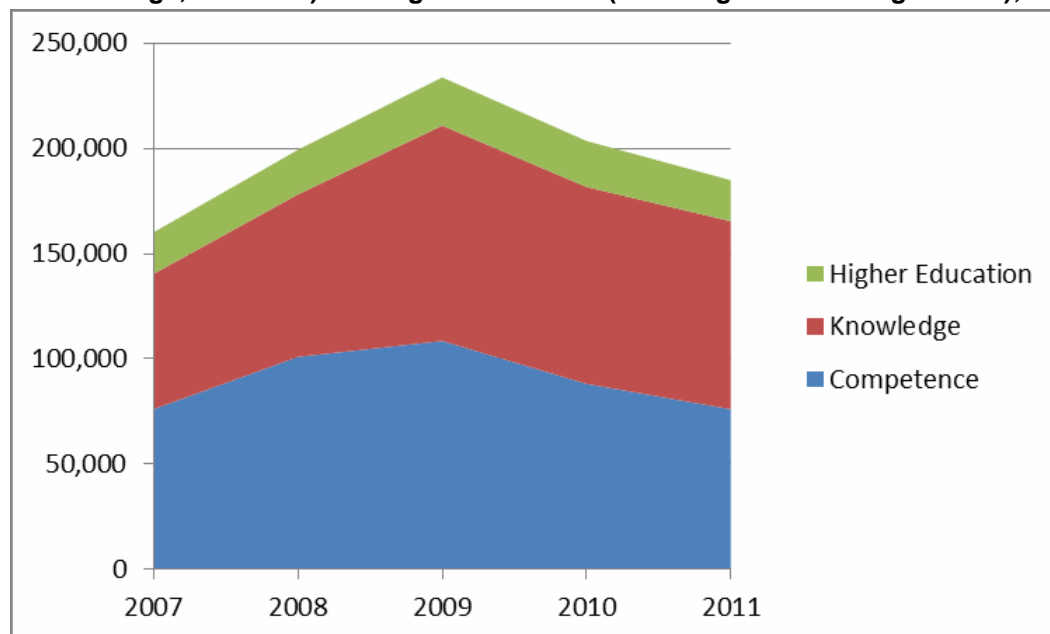


The report then draws conclusions from the analysis along with recommendations for future work.

To give an overview of training and education numbers, Figure 1 shows the headline numbers for Further Education (Competence and Knowledge based qualifications from private training providers and further education colleges) and Higher Education (University first degree and post-graduate qualifiers).

There was a clear increase in overall numbers from 2007 through to 2009, mainly due to increasing numbers in further education, however after 2009 there has been a sharp decline. (Note: although these numbers are presented for the UK, later analysis shows that there are differences between the patterns for England, Northern Ireland, Scotland and Wales.)

Figure 1 – Overview of qualifications achieved across the UK - Further Education (Competence & Knowledge, all levels) and Higher Education (First Degree and Postgraduate); 2007-2011

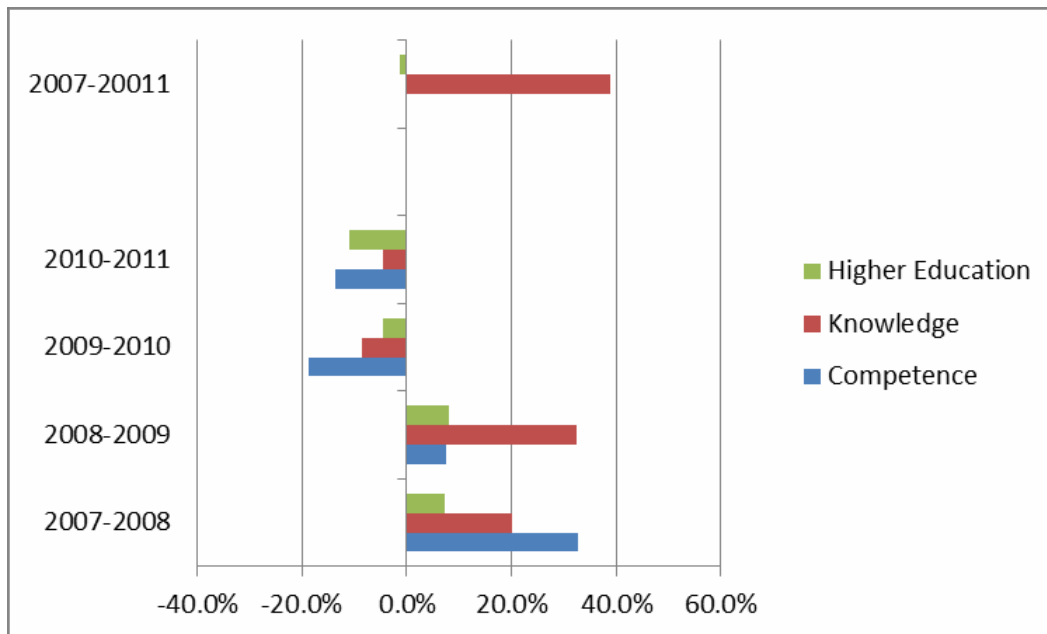


Sources: Ofqua, SQA; HESA

Although this illustrates the overall pattern it doesn't clearly identify some of the nuances when looking at the year on year and total change from 2007-2011 for the main types of training and education. Figure 2 provides a clearer view showing that while there was an increase in numbers for the three main types between 2007 and 2009, the declines between 2009 and 2011 mean that the numbers of competence and higher education achievements in 2011 are at a similar level to what was reported in 2007, however knowledge based achievements are at a significantly higher level with nearly a 40% increase in overall numbers.



Figure 2 – Year on year and total percentage change in qualifications achieved across the UK: 2007-2011



Sources: Ofqual; SQA; HESA



2. FE qualifications in England, Northern Ireland and Wales

Key Points

- Between 2007 and 2009 the total number of certificates issued increased from 130,000 to over 200,000.
- From 2009 to 2011 there has been a reduction in certificates issued of around 40,000, 20% lower than 2009 levels.
- England accounts for over 90% of all qualifications, Northern Ireland around 2% and Wales 7%.
- The majority of Competence qualifications are achieved at Level 2 (ca. 80%).
- The majority of Knowledge qualifications are achieved at Level 1 (ca. 50%).
- There is a consistent pattern for Competence qualification certification across the nations, however there is variation in Knowledge based certification with Northern Ireland having a different pattern to England or Wales.
- In 2011, 45% of all Level 2 Competence qualifications were linked to one occupational group – plant operatives. Wood trades were the next largest occupation with 11% of all Level 2 Competence qualifications.
- England and Wales have a similar occupational breakdown of Competence qualifications achieved. For Northern Ireland there is a slightly different pattern at Level 2 and Level 3.
- Recent trends for the first three quarters of 2012 show a decrease in numbers of Competence based, and an increase in Knowledge based certificates issued.
- The biggest drop is Level 3 Competence based qualifications, with a decline of 22% against the same period for 2011.
- There has been no decrease in plant operative qualifications, while other occupations such as wood trades; other construction professionals and technical staff; civil engineering operatives and bricklayers have shown noticeable drops in numbers.
- The majority of Competence and Knowledge qualifications certificated in England have received some form of public funding support.
- Indication that the level of non-public funding reduced between 2010 and 2011.

Unless stated the data source used is the vocational dataset provided by Ofqual and covers all certificates issued by the relevant awarding bodies for regulated vocational qualifications. The data does include certificates that form part of an Apprenticeship framework where both a Competence and Knowledge element is required, which raises the possibility for double counting. However looking at Competence or Knowledge qualifications separately reduces this risk as an apprentice is unlikely to achieve more than one of each type of vocational qualification in a given year.

This section starts by looking at the overall number of vocational qualification certificates issued across England, Northern Ireland and Wales before looking in more detail at how this breaks down across different qualification types, levels and also how the qualifications link through to occupations within the sector.

Prior to 2010 the data was not broken down by nation, however from 2011 a national level breakdown has been available and this is used to draw out similarities and differences in certifications, level and occupations between England, Northern Ireland and Wales. As the data is available at quarterly intervals, further analysis is carried out to compare the first three quarters of 2011 against the same period of 2012 (the most up-to-date data available at the time of writing), with details being shown by level, nation and occupation.

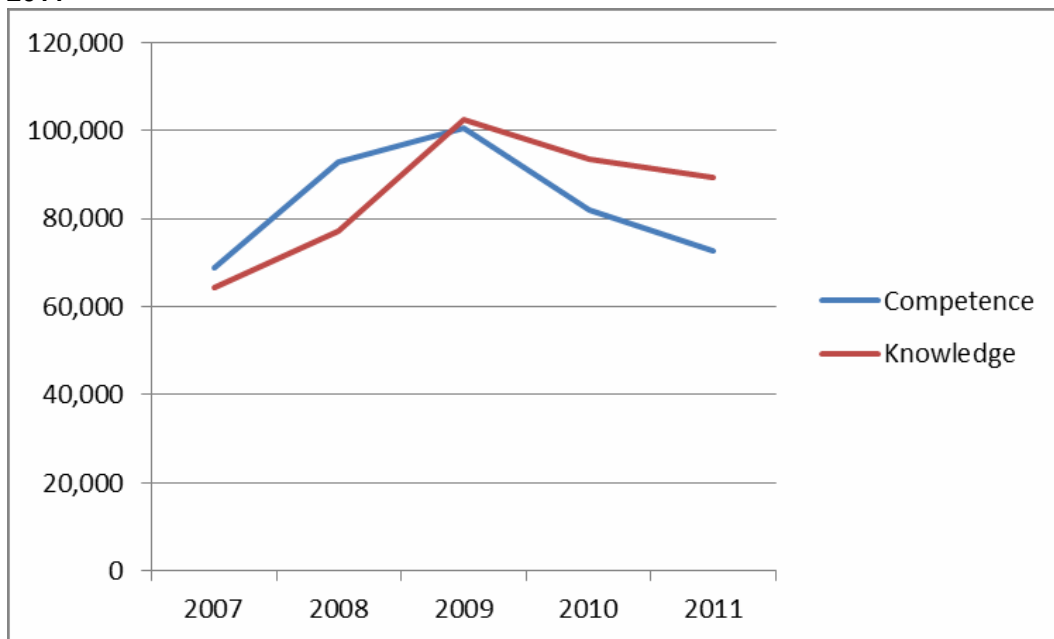


Finally, as Ofqual collate details supplied by Awarding Bodies the data on certificates issued covers all funding routes. It includes certificates issued that have received public funding support as well as those that have been funded by either the learner directly or those that have been funded by an employer. By comparing Ofqual data against statistics from public funding bodies, it is possible to take a view on the role that public funding plays in supporting qualification achievement.

2.1 – Headline numbers of Certificates Issued

Figure 3 below outlines the total yearly certificates for Competence and Knowledge qualification across England, Northern Ireland and Wales.

Figure 3 – Yearly certificates issued in England, Northern Ireland and Wales: all levels, 2007-2011



Source: Ofqual

For both broad sets of qualifications there is an increase in certifications from 2007 through to 2009, however after 2009 there is a sharper decline in the number of Competence based certificates issued compared to Knowledge types. This drop does occur at the time that the construction sector went into recession however the level of continued decline will also have been influenced by the availability of Train to Gain funding in England.

Although the data from 2007-2010 is not reported by individual nation, the data from 2011 shows that over 90% of certificates were issued in England, around 2% in Northern Ireland and approximately 7% in Wales. Analysis by nation also shows that England, Northern Ireland and Wales are similar when it comes to the balance between the two different types of qualifications. In all three nations Competence based certificates account for ca. 44% of the total issued with Knowledge based certificates ca. 56%

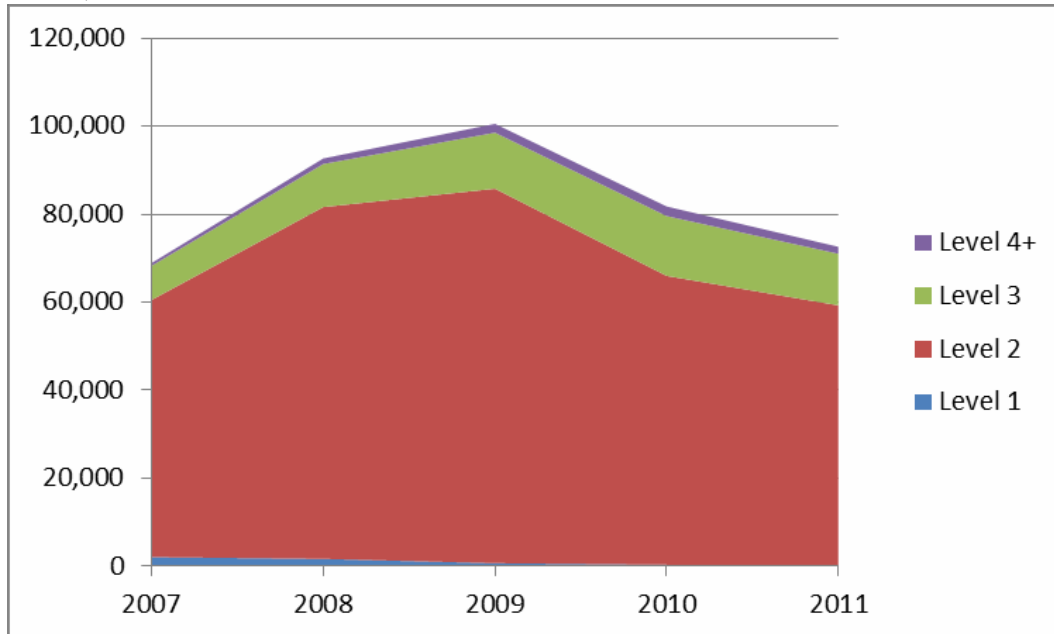
2.2 – Level of Qualification

When looking into the qualification level, for Competence based qualifications, Level 2 is clearly where the majority of certificates are issued, accounting for over 80% of all certificates each year, reference Figure 4. This pattern fits with industry card schemes,



which tend to recognise Level 2 qualifications as an initial benchmark in England, Northern Ireland and Wales. In combination, qualifications at Level 2 and Level 3 represent over 96% of all Competence certificates issued.

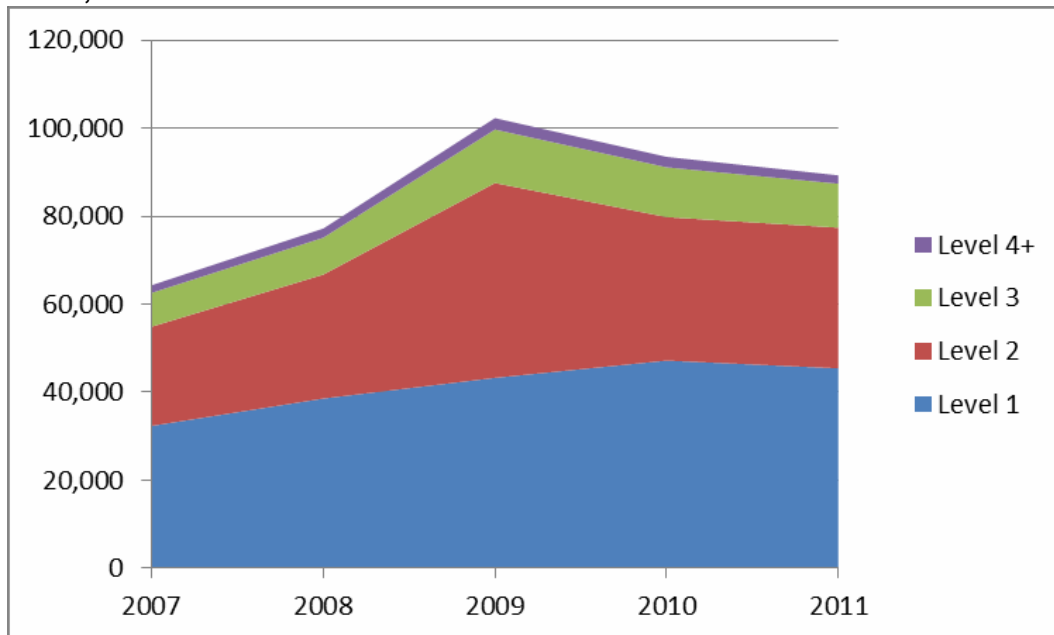
Figure 4 – Competence based certificates by qualification Level: England, Northern Ireland and Wales, 2007-2011



Source: Ofqual

Knowledge based qualifications have a very different profile as shown by Figure 5. There is a significantly higher share of Level 1 certificates, which account for around 50%, whereas Level 2 certificates make up around 35% and Level 3 about 11% in each year.

Figure 5 – Knowledge based certificates by qualification Level: England, Northern Ireland and Wales, 2007-2011



Source: Ofqual



When looking at the level of qualification for each nation there does appear to be a consistent pattern for Competence based certification with over 80% at Level 2 and 16% at Level 3.

As Figures 4 and 5 illustrate there is a different pattern between Levels of Competence and Knowledge qualifications, however there also looks to be a different pattern when looking at Knowledge based qualifications by Level across the nations, reference Figure 6 below.

Figure 6 – Knowledge based certificates by qualification Level: England, Northern Ireland and Wales, 2011



Source: Ofqual

England and Wales are very similar with around 50% of Knowledge based certificates issued at Level 1; 35% at Level 2; around 10% at Level 3 and quite a low share of Level 4+. For Northern Ireland the share of Level 1 certificates is notably lower at just over 20%; the shares of Level 2 and Level 3 certificates are both around 35% and share of Level 4+ higher at around 7%.

As mentioned earlier, at this stage we are only able to access one full year of data per nation, however the partial data for 2012 follows a similar pattern with a far lower share of Level 1 qualifications being certificated in Northern Ireland and a higher share of Level 4+ when compared to either England or Wales.

Although the actual number of certificates issued in Northern Ireland is a lot less than either England or Wales (in 2011 there were just under 2,000 Knowledge certificates issued in Northern Ireland against 80,000 in England and 6,000 in Wales) the different pattern noticed over two years points to a structural difference in Further Education set up between Northern Ireland and either England or Wales.

2.3– Occupations linked to Certificates

Working on the assumption that someone who achieves a Competence based qualification will be applying that skill in their work environment, it is possible to use the qualification title



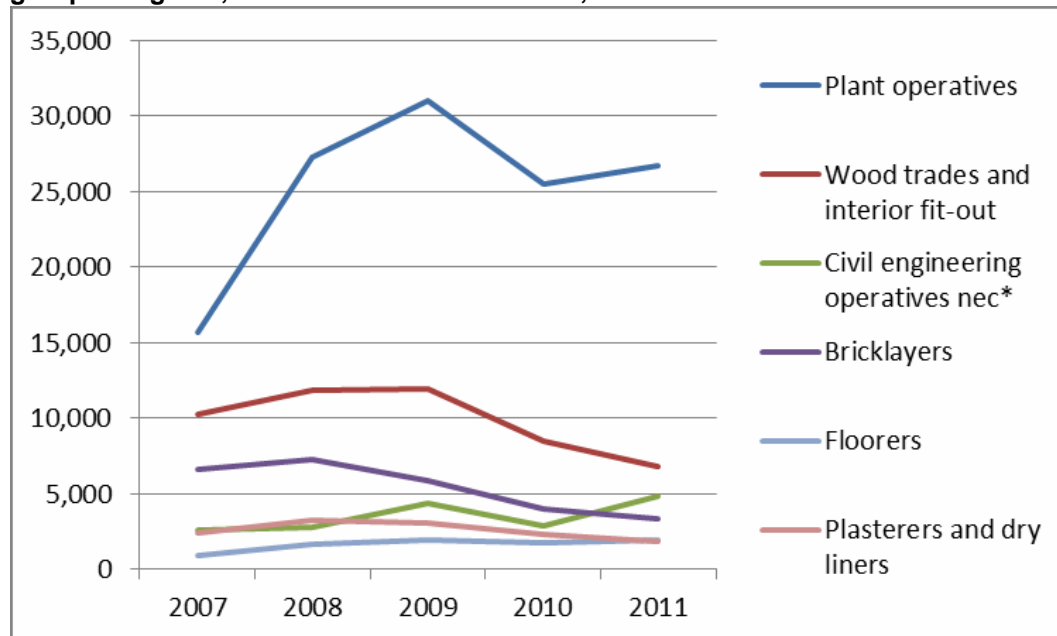
as a proxy or guide to the sort of occupation that the individual will have. For example an “NVQ Diploma in Wood Occupations” is highly likely to link to a wood trades occupation such as a site carpenter or site joiner, although it may also link to a related and more specialist trade.

However with certificates issued against more than 800 individual Competence qualifications, it would be very difficult to present an analysis of each and the following occupational details are presented using the broader occupational groups of the Construction Skills Network, reference Appendix B. In producing this view each qualification has been linked to the most appropriate group after consideration of the qualification title, qualification content, Standard Occupational Classification Codes (2010) and consultation with relevant experts in Standards and Qualifications.

Unfortunately a similar breakdown could not be achieved consistently across the Knowledge based qualifications because there is not the same explicit link between qualification title or content, and what the likely occupation of the individual may be. An example of this is “Certificate” or “Extended Certificate in Construction” which is almost impossible to link to a distinct occupation.

There is a relationship between training numbers and overall industry employment levels for occupations, as shown by some of the groups identified in Figure 7, however there are also notable differences.

Figure 7 – Number of Level 2 Competence certificates issued per year by main Occupational groups: England, Northern Ireland and Wales, 2007-2011



Source: Ofqual

Plant operative qualifications are the main occupation identified in each year, which indicates that training qualifications may not always follow industry employment levels because employment numbers are noticeably lower when compared to occupations such as wood trades. At peak in 2009 there were over 30,000 Level 2 Competence certificates issued for plant operatives, while in 2011 they accounted for 45% of all Level 2 certificates issued. The reason for this is thought to be related to the need for operatives to have a Construction

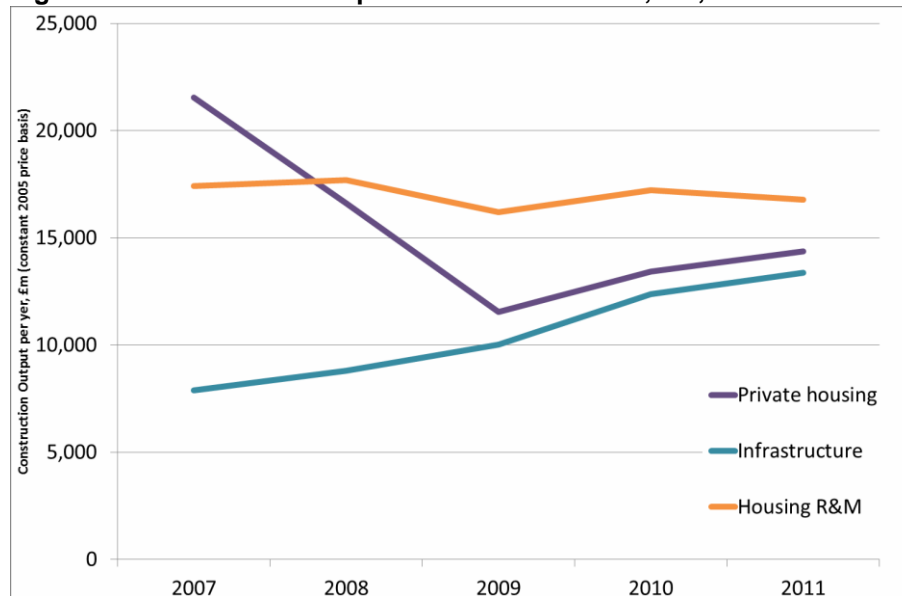


Plant Competence Scheme (CPCS) card to demonstrate relevant skills along with health and safety training. This card scheme is widely recognised as being the standard for the plant sector in construction and as such has a very strong influence on uptake of competence based qualifications which are a requirement of the scheme.

After Plant operatives, wood trades and interior fit out was the next largest occupational group, accounting for 11% of certificates issued in 2011, and showing a consistent decline in numbers from 2009 through to 2011.

With the exception of plant operatives, the trends in certification numbers look to follow general industry patterns. The decline in bricklaying, which seemed to start dropping from a slightly earlier point (2008), is consistent with output levels in the housing sector while the positive trend in occupations such as civil engineering operatives links to the better performance of the infrastructure sector in recent years, reference Figure 8 – Output trends in selected sectors.

Figure 8 – Construction output in selected sectors; UK, 2007-2011

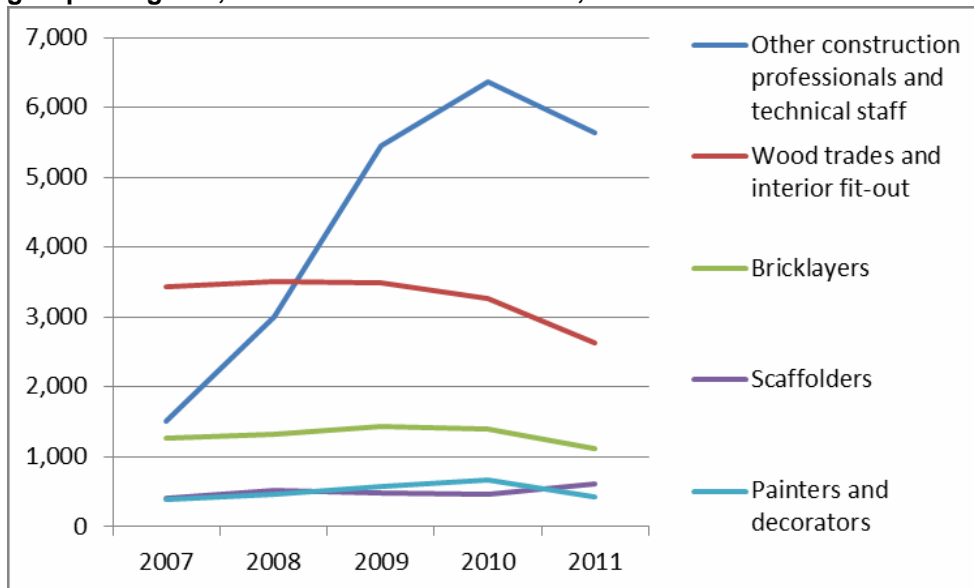


Source – ConstructionSkills / Experian

With Level 3 Competence qualifications there is a slightly different pattern, as shown by Figure 9. Occupations such as wood trades and bricklaying are amongst the main numbers and as with Level 2 qualifications there is a decrease in numbers, although not quite as marked and only over the last two years. With increasing levels of qualification there are more technically based qualifications being picked up that would be taken by a range of support and supervisory staff, hence the numbers identified against this broad occupational group.



Figure 9 – Number of Level 3 Competence certificates issued per year by main Occupational groups: England, Northern Ireland and Wales, 2007-2011

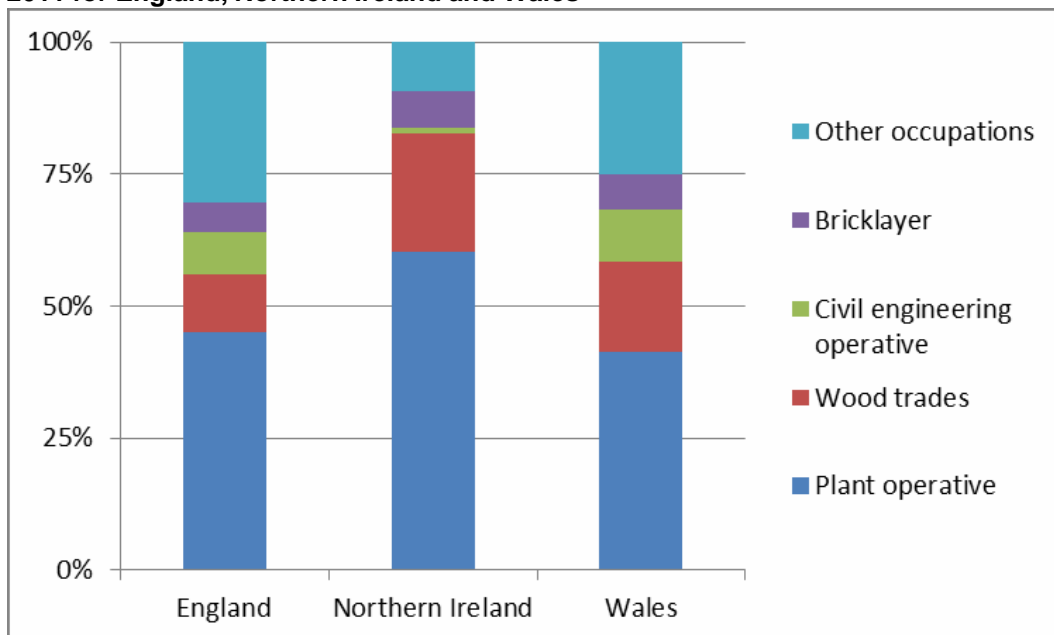


Source: Ofqual

For Competence qualifications at Level 4 and above, these are predominately allocated to Construction Managers and professional occupations.

When looking at the breakdown of occupations across the nations, as before there is a similar view across England and Wales, while Northern Ireland has a slightly different pattern for occupations linked to Level 2 and 3 Competence based qualifications, as illustrated by Figures 10 and 11 below.

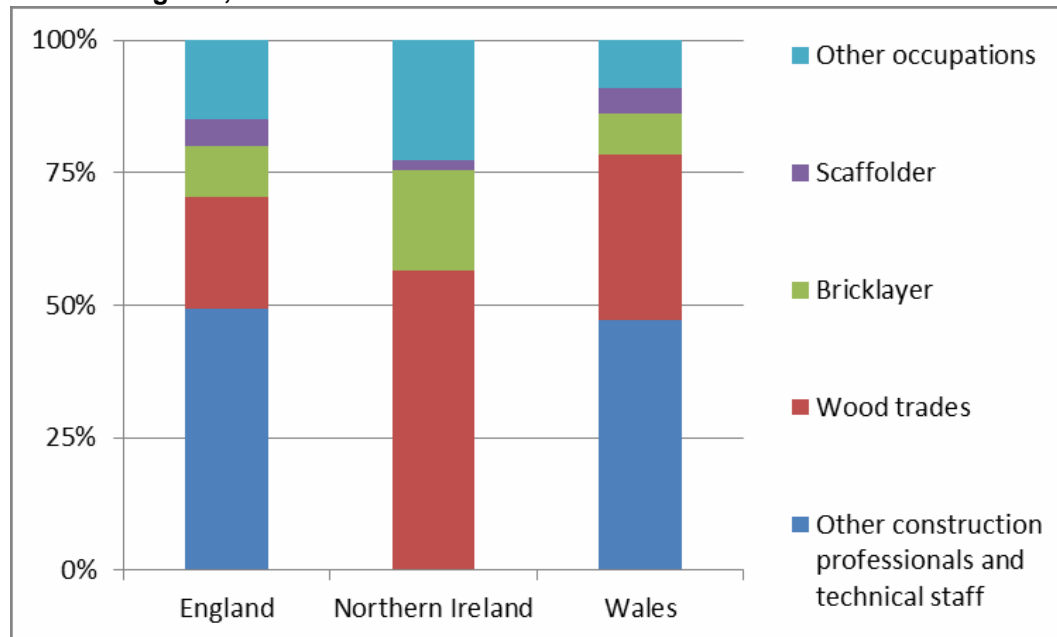
Figure 10 – Main occupational groups by Nation; Level 2 Competence certificates issued in 2011 for England, Northern Ireland and Wales



Source: Ofqual



Figure 11 – Main occupational groups by Nation; Level 3 Competence certificates issued in 2011 for England, Northern Ireland and Wales



Source: Ofqual

At Level 2 in Northern Ireland there is a higher share for both plant operative and wood trades, with a significantly lower share of other occupations, while for Level 3 there is a lack of qualifications that would be linked to people working in the other construction professional and technical staff category.

The occupational view across England and Wales appears to be broadly consistent.

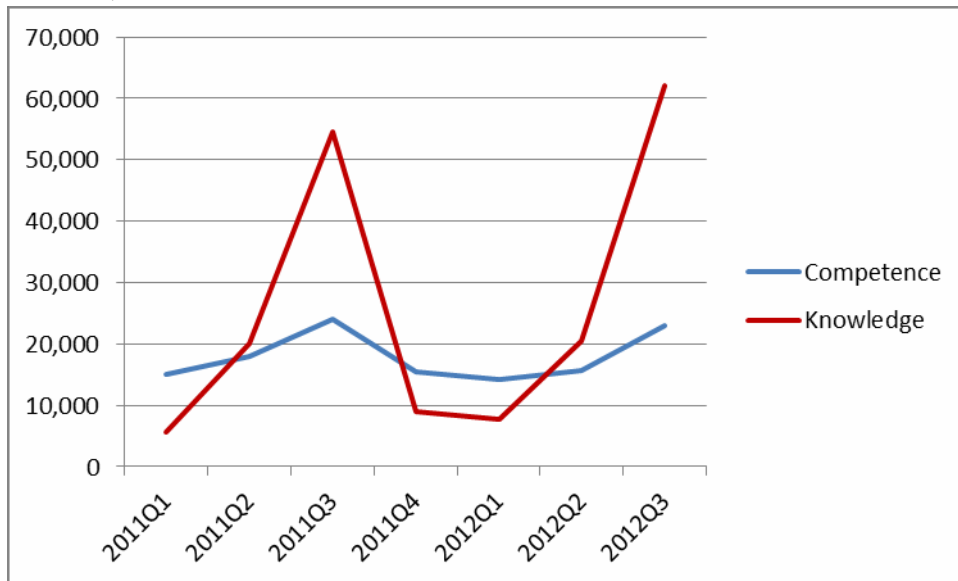
As mentioned earlier, the number of qualifications achieved in Northern Ireland is notably lower than either England or Wales, therefore some variation in certification pattern would be expected. The lower numbers will also make setting up and delivering some qualifications challenging for training providers who would need a level of uptake for a course to be viable.

2.4 Recent Trends

Figure 12 shows the quarterly breakdown of qualification certification from Q1 2011 through to Q3 2012. The first thing to note is that there appears to be a cyclical pattern, more so for Knowledge based qualifications, with the bulk of achievements being issued in Q3 of each year, which is consistent with academic years of further education establishments.



Figure 12 – Quarterly certificates issued in England, Northern Ireland and Wales: all levels, Q1 2011 – Q3 2012



Source: Ofqual

The second point of note is that Figure 2 shown earlier, indicated the balance between Competence and Knowledge based qualifications through to 2011 was around 44%/56%, however for 2012 this looks to be shifting towards more of a 40%/60% balance. Although difficult to detect from Figure 11, the table below compares the first three quarters of 2011 against the first three quarters of 2012. This illustrates that while there is an overall increase in certificates issued of 4.3%, Competence based numbers have dropped by 7.5%, while Knowledge based numbers have increased by 12.7%.

	% Change 2011 v 2012			Total % Change
	Q1	Q2	Q3	
Competence	-5.6%	-12.4%	-5.0%	-7.5%
Knowledge	39.3%	2.2%	13.8%	12.7%
Grand Total	6.6%	-4.7%	8.1%	4.3%

Source: Ofqual

When looking in more detail at these recent trends at qualification level, the most significant variation is the drop in Level 3 for Competence based qualifications which across the three quarters have declined by 22%, whereas Level 2 qualifications have dropped by slightly over 5%. There was no significant difference in Knowledge qualifications with all increasing by a similar level.



Looking at the individual nations we can see that the drop in Competence based qualification numbers is prominent in England and Wales, whereas there is an increase for Northern Ireland. However for Knowledge qualifications there is a significant increase in numbers across England and Wales and only a slight increase for Northern Ireland.

		% Change 2011 v 2012			Total % Change
		Q1	Q2	Q3	
Competence	England	-7.4%	-12.4%	-4.8%	-7.9%
	Northern Ireland	22.5%	-6.1%	17.7%	8.9%
	Wales	22.5%	-14.8%	-11.2%	-6.2%

Knowledge	England	40.9%	5.6%	12.8%	13.0%
	Northern Ireland	45.4%	-22.9%	14.9%	3.3%
	Wales	13.4%	-22.0%	27.7%	11.3%

Source: Ofqual

For individual occupations there is also some variance in recent trends. As noted earlier the recent change is a 7.5% decline across all Competence qualifications, however as the table below shows there is almost no change in the number of plant operative linked qualifications, whereas occupations such as wood trades, civil engineering operatives and bricklayers have all dropped by more than this figure. Also, as the drop in Competence qualifications is largely at Level 3 (-22%), there is also a significant drop in qualifications for staff that work in technical roles.

Occupation	% Change 2011 v 2012			Total % Change
	Q1	Q2	Q3	
Plant operatives	-1.7%	1.7%	1.2%	0.5%
Wood trades and interior fit-out	-0.6%	-18.6%	-8.1%	-9.4%
Other construction professionals and technical staff	-12.8%	-32.0%	-16.3%	-20.8%
Civil engineering operatives	8.0%	-35.7%	-25.4%	-21.9%
Bricklayers	-9.6%	-34.0%	-9.9%	-17.0%
Painters and decorators	3.6%	-4.0%	3.6%	1.6%
Scaffolders	22.4%	3.8%	-7.4%	4.1%
Plasterers and dry liners	-2.9%	-9.4%	11.0%	1.2%
Other occupations	-23.7%	-21.8%	-8.4%	-17.2%

Source: Ofqual



2.5 – Public Funding

As outlined at the start of this section, Ofqual data covers certificates issued against qualifications and in that respect it will capture data across the range of privately and publicly funded provision.

By comparing the Ofqual data against data available from public funding bodies it is possible to produce an estimate as to how much training is being achieved with public funding support and how much is being privately financed, either by the learner directly or through an employer. This estimate should only be viewed as indicative because of a number of factors such as;

- Differing timeframes
- Dates when achievements are recorded
- Reporting format
- Level of detail provided

Although a full reconciliation of different datasets would be complex, it is possible to take a view on overall numbers, compare details and highlight points, bearing in mind the limitations outlined above.

Of the three nations, data from the Skills Funding Agency for England is the most detailed, comprehensive and current, therefore this has been used for comparison against Ofqual figures. Public funding is directed into education and training through a number of routes, however the main routes relevant for the sector are Employer Responsive funding (i.e. Apprenticeships and Train to Gain) and Learner Responsive funding (i.e. support for Further Education). When comparing details, all of these funding routes have been taken into account.

Analysis of data from the period 2008 through to 2011 indicates that public funding is used to support the majority of Competence and Knowledge based qualifications issued in England in recent years. For Knowledge based qualifications the estimate is that public funding supports around 75% of certifications in any given year, while for Competence based qualifications there is some fluctuation from as low at 65% in 2008 up to over 95% in 2011. This fluctuation in Competence based qualifications is most likely due to two main factors:

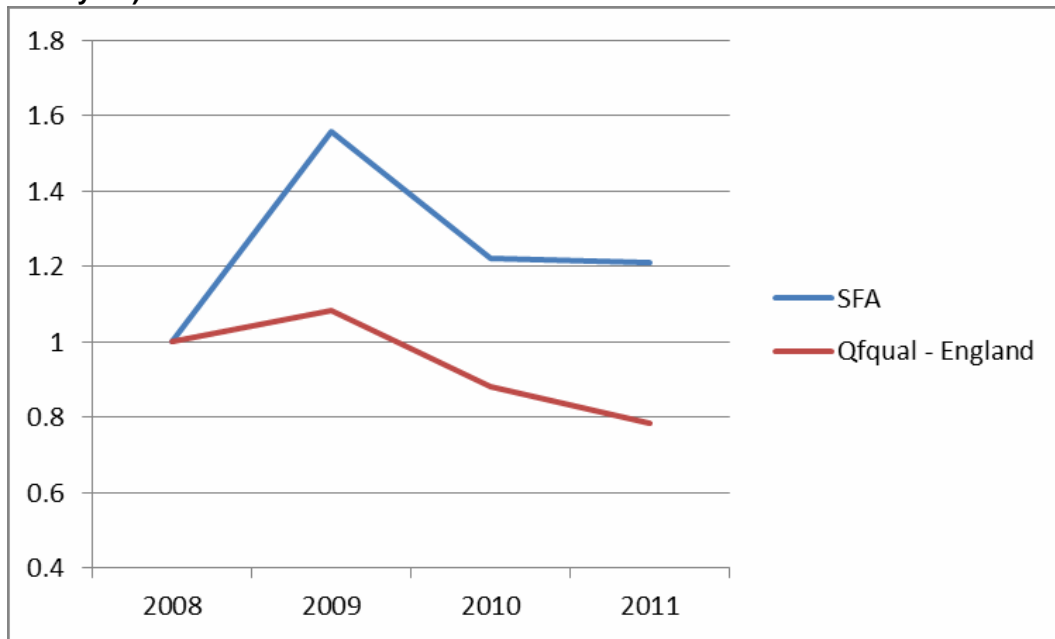
- Train to Gain funding
- Industry in recession.

Recent trends for Ofqual and SFA Competence based qualifications are illustrated by Figure 13, which shows an Index for each set of figures, using 2008 as the base year. The Figure shows that from 2008 to 2009 there was a very significant increase in Competence based qualifications with public funding support, which corresponds to promotion of Train to Gain.

It was also around this time that the effects of the recession began to have an impact on construction sector employment, which is likely to be responsible for the drop in training achievements from 2009 through to 2011. While the initial drop from 2009 to 2010 was severe, there was a levelling off of publicly funded qualifications from 2010 to 2011 whereas the general trend (as shown by Ofqual) was for reducing numbers. We are not sure of the exact reason for this, however it does point towards a larger reduction in the number of non-publicly funded qualifications compared to those that are publicly funded. This appears to be consistent with wider industry research which indicated reduced levels of training as companies tried to cope with falling workloads and profit margins. There was also a scaling back of Train to Gain funding around 2010/2011 as the Government reviewed how it would support this type of training.



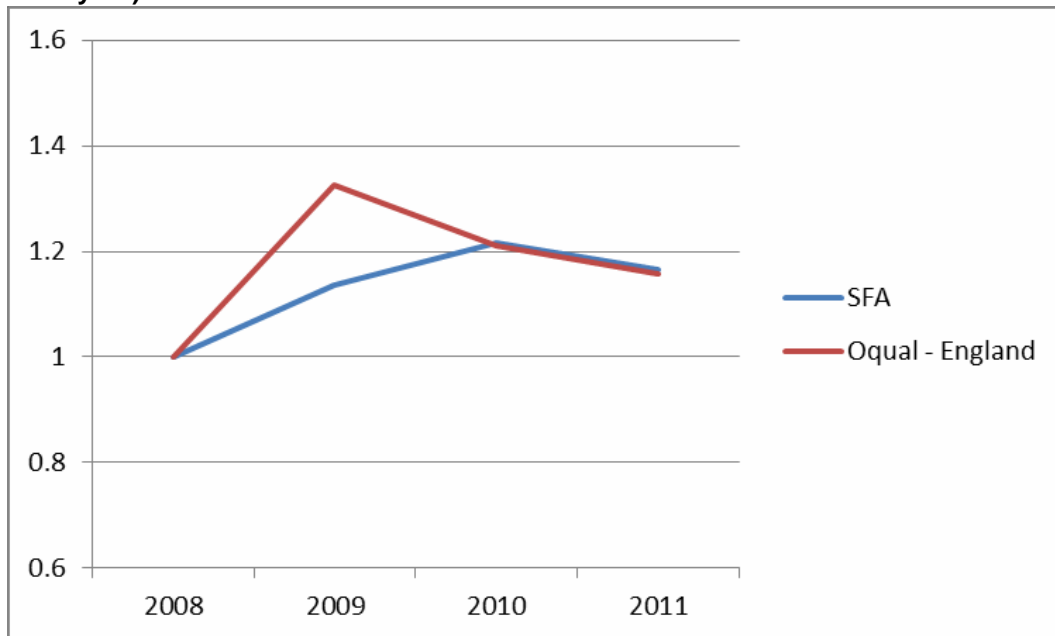
Figure 13 – Index of Competence certificates issued in England; all levels 2008 – 2011 (2008 Base year)



Sources: Ofqual; Skills Funding Agency

In comparison the similar Indexing of Knowledge based qualifications follows a different pattern, with SFA and Ofqual showing very similar trends, ref. Figure 14.

Figure 14 – Index of Knowledge certificates issued in England; all levels 2008 – 2011 (2008 Base year)



Sources: Ofqual; Skills Funding Agency

From this, indications are that for England, public funding support is an important aspect in overall qualification attainment. Although comparable data for Northern Ireland and Wales was not available, public funding for further education is likely to be equally important.



3. FE qualifications in Scotland

Key Points

- Scotland has distinct differences in education, training and qualification systems when compared to England, Northern Ireland and Wales.
- Competence based qualifications can be compared on a broadly similar basis, however not Knowledge based.
- There was a rise in the number of Competence qualifications achieved from 2007 through to 2008 before a slight decline in 2009.
- From 2009 through to 2010 and 2011 there has been a sharp drop in achievements. In 2011 achievements were about half of the level recorded in 2007.
- The fall in numbers is mainly due to a very significant reduction in achievement of Level 2 qualifications. In 2011 this was 20% of the level seen in 2007.
- Level 4 qualifications have shown a significant increase in achievement numbers while Level 3 qualifications have fluctuated slightly.
- Plant operatives are the main occupation for Level 2 qualifications.
- There appears to be a significant change in occupations linked to Level 2 qualifications with the pattern changing from 2007-2011.
- In contrast Level 3 qualifications show a more consistent occupational breakdown with wood trades being the main occupation.
- Falling start numbers indicate a continued decline in achievement numbers in future years.
- The decline will be mainly for Level 2 qualifications with Level 3 and Level 4 either remaining static or increasing slightly.
- For Level 2, plant operatives and civil engineering operatives will be the main occupations.
- For Level 3, wood trades along with painters and decorators will be the main occupations.
- Future qualifications in Scotland look to be closely linked to Apprenticeship details.

This section focuses on the achievement of regulated qualifications in Scotland because there are some fundamental differences in the way that vocational education and training is structured, which raises issues when making direct comparison against qualifications achieved in England, Northern Ireland and Wales.

“The education, training and qualifications systems are broadly similar in England, Wales and Northern Ireland; however Scotland has always had distinct systems.”

Source: UK Government (pg 3) Qualifications Frameworks in the UK

Although there are differences in England, Northern Ireland and Wales, they have very similar vocational education structure. They use qualifications that are recognised across the three nations, the qualifications can be classed as either Competence or Knowledge based, Knowledge based qualifications are mainly delivered through full, or part-time further education, and Apprenticeships operate under similar principles.

Scotland has its own qualification structure (Scottish Credit and Qualification Framework) in which it is possible to identify Competence and Knowledge based qualifications. Competence qualifications such as Modern Apprenticeships and Scottish Vocational Qualifications in Scotland can be compared against similar qualifications in England,



Northern Ireland and Wales, although it should be noted that there are differences in Apprenticeships which will be covered in Section 4 later.

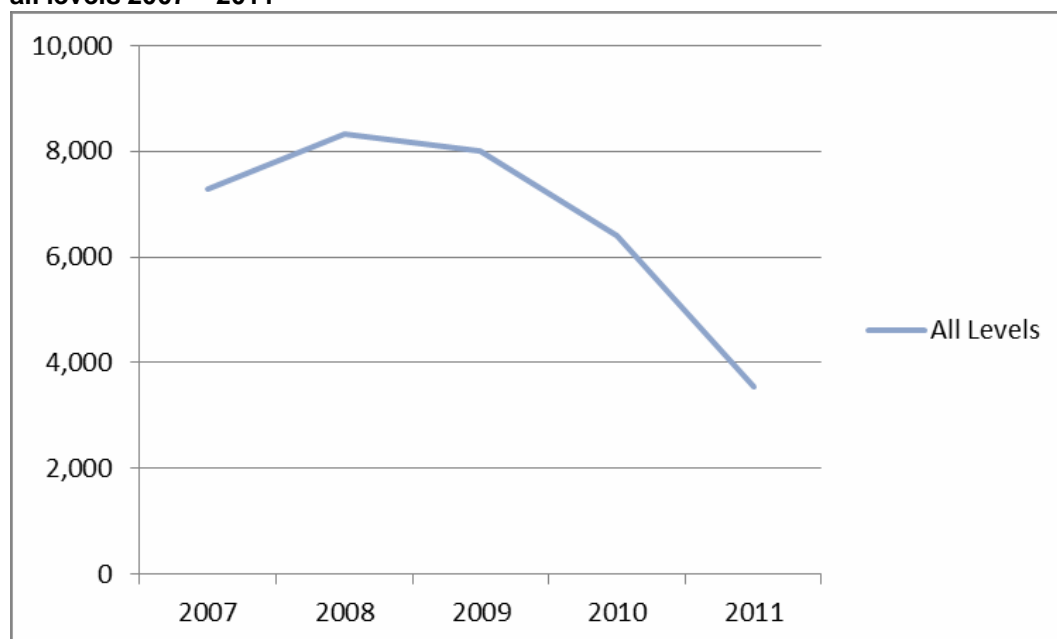
It is also possible to compare higher level Knowledge based qualification achievement for the likes of Higher National Diplomas (HND) or Higher National Certificates (HNC) across Scotland, England, Northern Ireland and Wales. However for lower level qualifications (those at NQF Levels 1 – 3), until the introduction of National Certificates, National Progression Awards and Professional Development Awards there was no equivalent to the qualifications that were being delivered in England, Northern Ireland and Wales, largely to 16+ aged, full time further education students who were not in work.

The details presented therefore focus on the Competence based qualifications delivered in Scotland, with the inclusion of HNC and HNDs. To align the details with those from other England, Northern Ireland and Wales, the level descriptors used relate to those of the previous NQF.

3.1 – Headline number of Certificates issued

Figure 15 shows the headline details for Competence based qualifications achievements in Scotland. There was a rise in overall numbers from 2007 through to 2008, a slight decline in 2009 and a rapid decline in 2010 and 2011 to about half of the level recorded in 2007.

Figure 15 – Competence qualification (SVQs and Higher Nationals) achievements in Scotland: all levels 2007 – 2011



Source: SQA

Even allowing for the recession this is a very significant fall in numbers and on a far greater scale to that seen in any other nation. To try and understand this, the following sections will look at the qualification details by level and also by linked occupations.

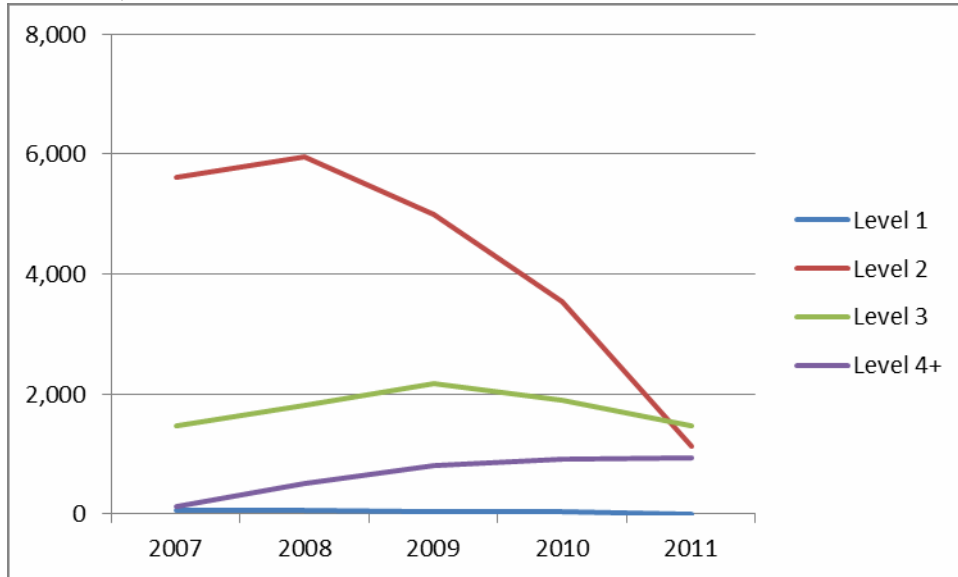
3.2 – Level of Qualification

When looking at the qualification achievements by level, ref. Figure 16, a clear pattern emerges in that the drop in overall numbers seen across the period is mainly due to a reduction in Level 2 qualifications. Comparing 2007 to 2011 details, Level 2 qualifications



are down to around 20% of the numbers seen in 2007. Level 3 qualifications showed an increase before declining slightly through to 2011 ending up at a similar level to that issued in 2007. In contrast to either Level 2 or 3, Level 4 achievements have increased shown a steady increase across the years, while the incidence of Level 1 achievements is negligible across the years.

Figure 16 – Competence qualification (SVQs and Higher Nationals) achievements by Level: Scotland, 2007 – 2011



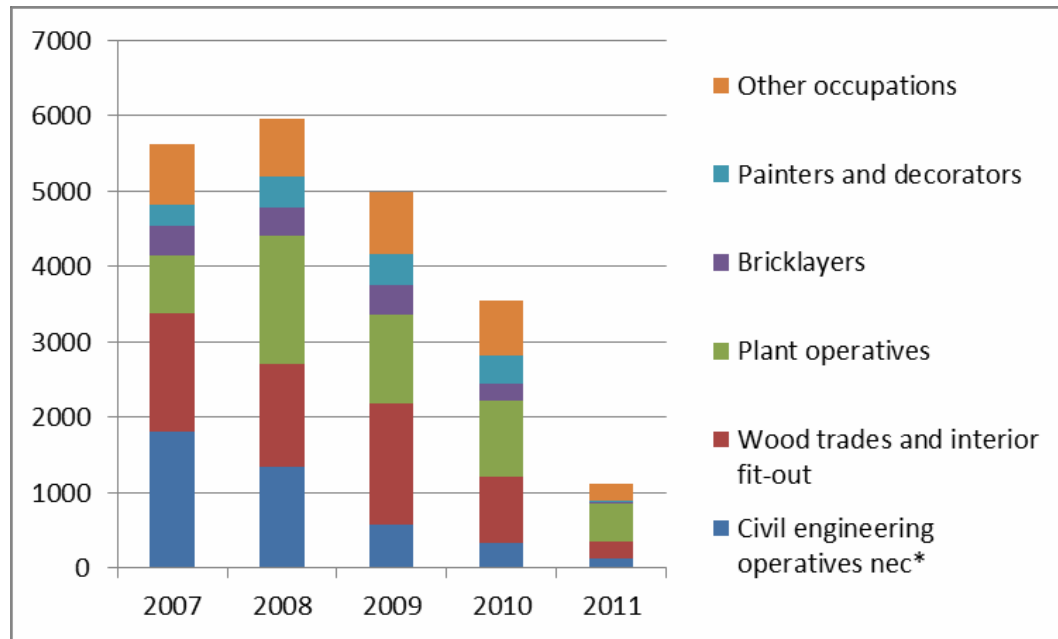
Source: SQA

3.3 – Occupations linked to Certificates

As the Level 2 and 3 qualifications are mainly SVQs, it is possible to link these to an occupation and there is a clear pattern that emerges across the years. Figure 17 shows the occupations linked to Level 2 qualifications and while the overall numbers change, the impact is not even across the occupational groups – there is less of an impact upon plant operator qualifications and a significant decline in occupations such as wood trades; painters and decorators; bricklayers and other occupations.



Figure 17 – Level 2 Competence qualification achievements by Occupation: Scotland, 2007 – 2011

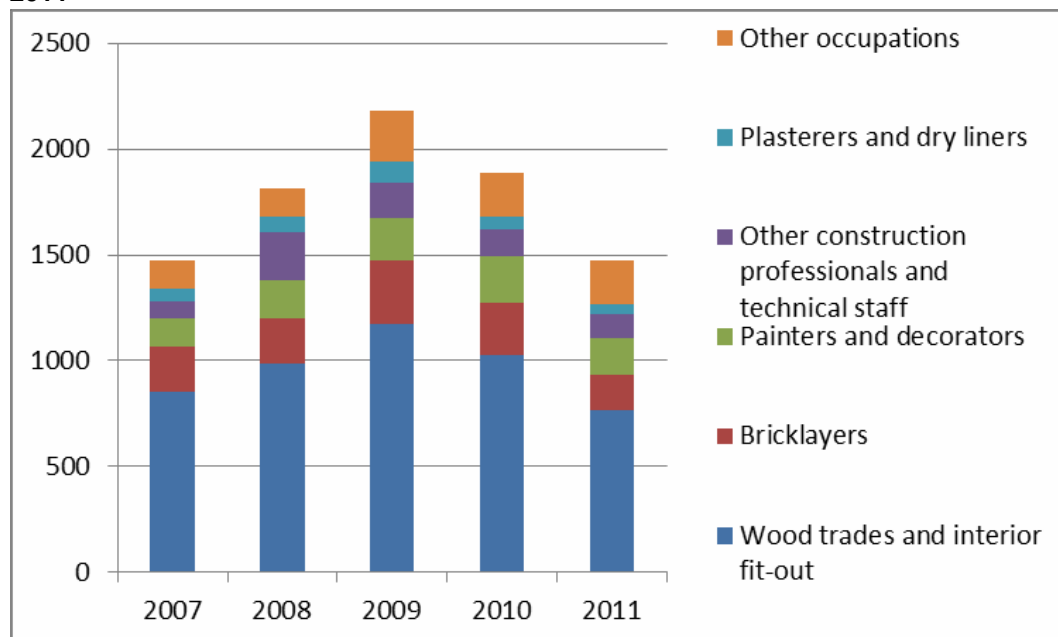


Source: SQA

The prevalence of plant operator qualifications at Level 2 appears to be consistent with what is seen across other nations and will be linked to CPCS Cards.

Contrast this pattern to Figure 18, which shows the occupational breakdown of Level 3 qualifications where the relative shares are consistent across the years even though the totals vary.

Figure 18 – Level 3 Competence qualification achievements by Occupation: Scotland, 2007 – 2011



Source: SQA



While the drop in overall numbers occurred around the same time as the sector going into recession, the different occupational pattern and change in the number of Level 2 achievements indicates that there some additional factors at play.

Firstly, Level 3 tends to be taken as the benchmark for occupations such as wood trades, bricklaying, and painting and decorating therefore the number of achievements recorded in previous years is somewhat surprising. It is possible that these Level 2 qualifications were taken by experienced workers going through the on-site assessment route (OSAT), which would have been funded by the individual or employer (in Scotland there was no equivalent to the English Train to Gain funding). However feedback from industry indicates that this may not be the sole reason.

The second possible explanation is that Level 2 qualification may have been achieved by apprentices while working towards their frameworks. Although Level 2 qualification would not be recognised as part of the overall framework, which for these occupations are set at Level 3, a Level 2 may have been taken if an individual wanted to record interim achievements. Feedback from industry confirms that this could have been the case, however the scale of occurrence was difficult to judge.

It is likely that a combination of both of these factors underpin the change in numbers, however the exact impact from either is difficult to determine. In recent years there has been a tightening around apprenticeships frameworks and with the sector still experiencing recessionary effects there will be less demand for training of existing workers. With continued monitoring of future achievement details it may be possible to have a clearer view, although some indication may also be given by looking at recent trends.

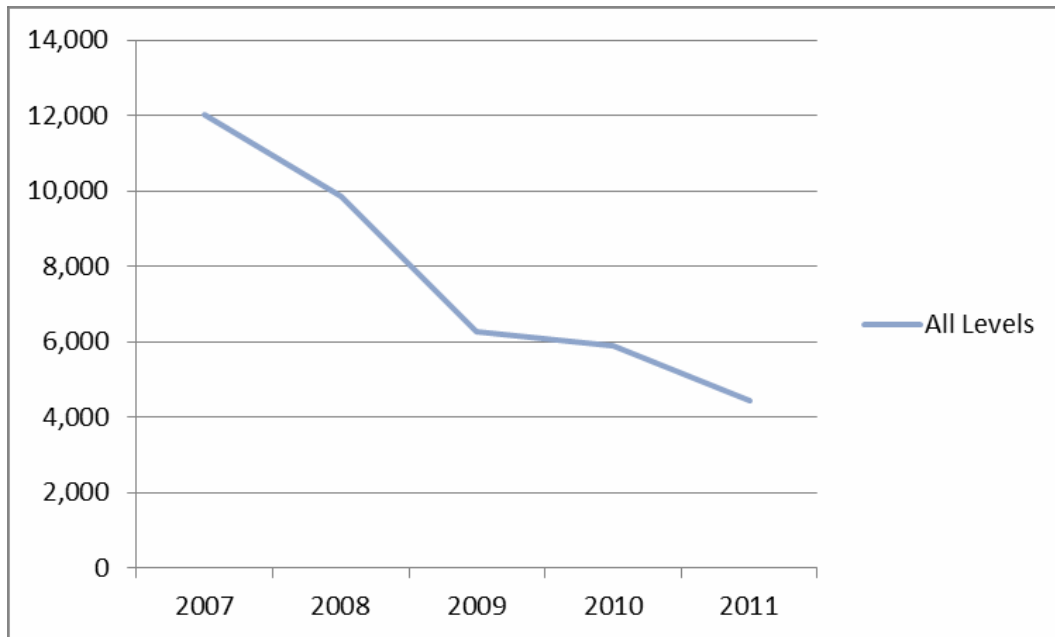
3.4 – Recent Trends

Data from Scotland has one unique advantage when compared to other nations, as well as achievement numbers, start numbers are also reported. These can be used to indicate future achievement patterns as achievements will obviously be based on the numbers that start and the completion rates, which for construction in Scotland are generally high and consistent.

Figure 19 shows overall start numbers, which have fallen consistently from 2007 through to 2011. This indicates that unless there is a significant increase in completion rates, achievement numbers look set to continue to decline in coming years.



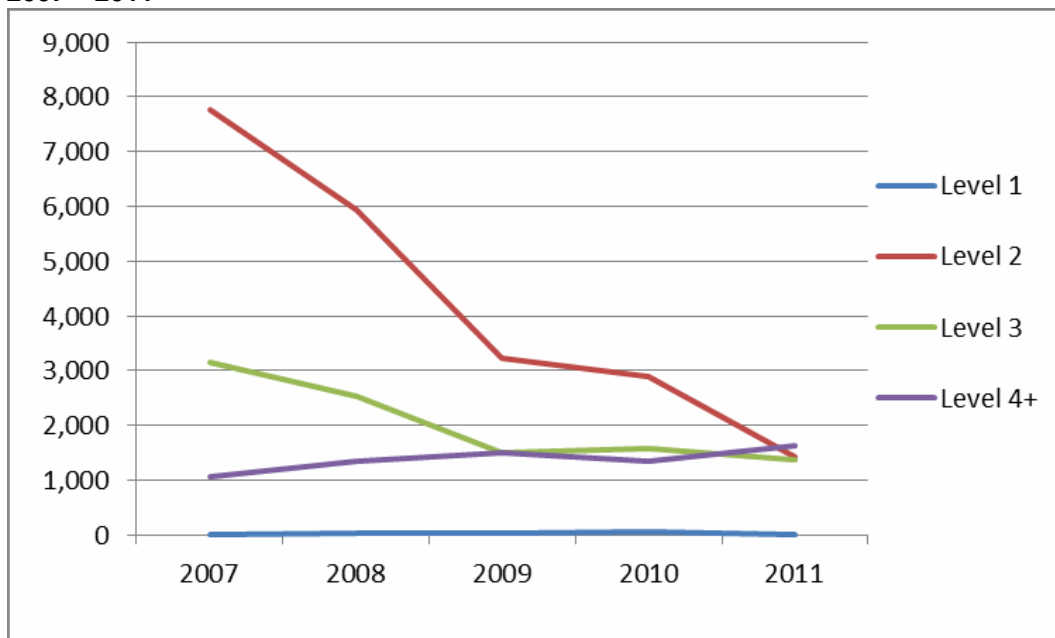
Figure 19 – Competence qualifications (SVQs and Higher Nationals) starts in Scotland: all levels 2007 – 2011



Source: SQA

Breaking down this overall pattern by qualification level, ref. Figure 20 shows that as previously noted with achievement numbers the main decline is in Level 2 qualifications and with reducing start numbers in 2011, achievement details are likely to continue to decline.

Figure 20 – Competence qualifications (SVQs and Higher Nationals) starts by Level: Scotland, 2007 – 2011



Source: SQA

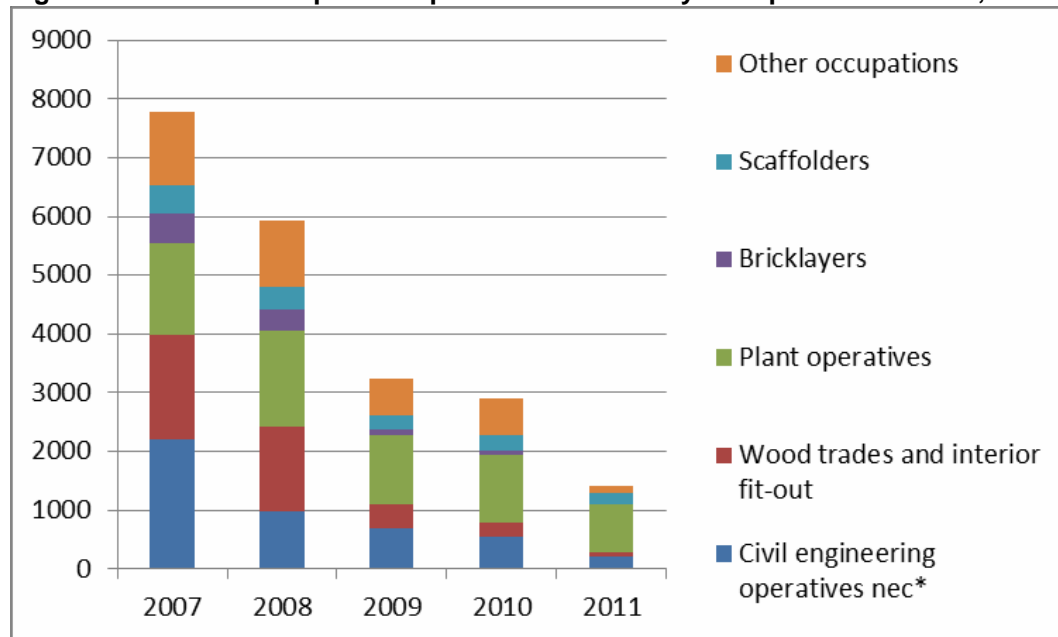
For Level 3 and Level 4+ qualifications there are different trends to that of Level 2. Level 3 qualification starts have fluctuated around 1,500 starts per year from 2009 - 2011, indicating that achievement numbers are likely to remain constant in the near future.



Level 4+ qualifications numbers indicate a slightly more positive view, in increasing start numbers from 2010-2011, although the increase may not be great there is a longer term, positive trend.

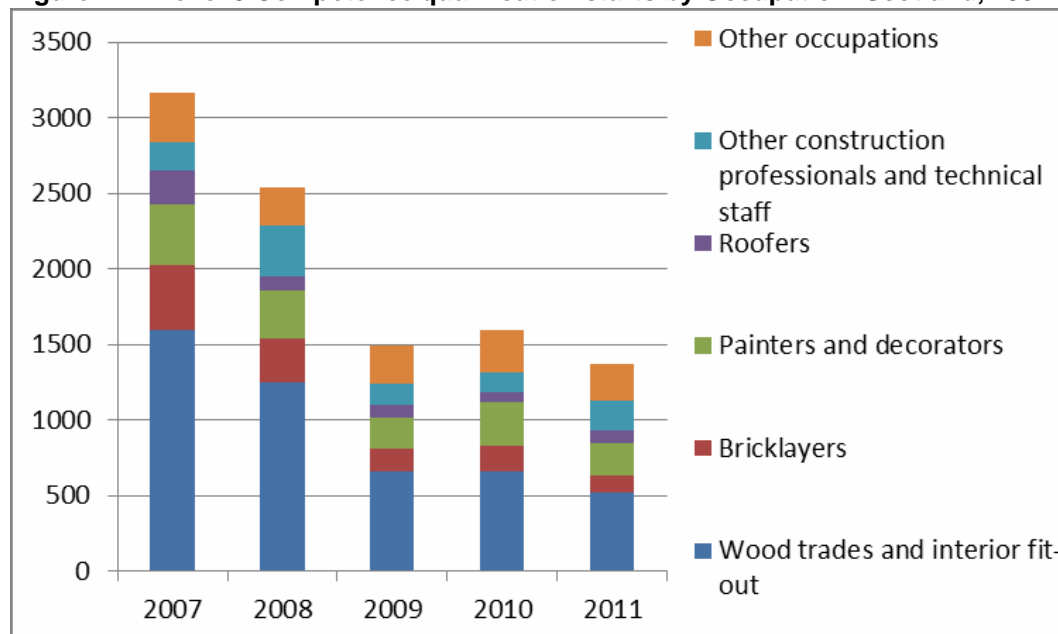
Looking in more detail at the occupational breakdown for Level 2 and Level 3 qualifications, ref. Figures 21 and 22, plant operatives and civil engineering operatives will be the main occupations for Level 2 qualifications, which is a significant change in occupational profile when compared to previous years.

Figure 21 – Level 2 Competence qualification starts by Occupation: Scotland, 2007 – 2011



Source: SQA

Figure 22 – Level 3 Competence qualification starts by Occupation: Scotland, 2007 – 2011



Source: SQA



For Level 3 qualifications, the occupational profile is more consistent across the years. Wood trades; painters and decorators and bricklayers will continue to be the main occupations for Level 3 qualifications, although at slightly lower levels than seen in previous years.

With the exception of plant operatives, which will be linked to CPCS Cards, the emerging pattern in occupations for Level 2 and Level 3 qualifications looks to be linked with recent details available on apprenticeships (covered in Section 4). With the recent introduction of Level 2 apprenticeships, uptake for civil engineering operatives has increased, while Level 3 apprenticeships are the benchmark for occupations such as wood trades, painting and decorating and bricklaying.



4. Apprenticeships across the UK

Key Points

- Between 2007 to 2009 the total number of apprentices achieving frameworks increased, however there has been a declining trend in 2010 and 2011.
- In 2011, overall apprenticeship achievements were about 15% less than recorded in 2007.
- The bulk of the decline in numbers has come from falling apprenticeship numbers in England, with achievements in 2011 nearly 25% lower than the level seen in 2007.
- In England, Northern Ireland and Wales, apprenticeships are mainly achieved at Level 2.
- In Scotland most apprenticeships are achieved at Level 3.
- In England around 33% of apprentices achieving a Level 2 will go on to achieve a Level 3.
- Start numbers in England have decreased from over 20,000 in 2007 down to under 13,000 in 2012.
- Start numbers in Scotland have increased in 2012, however there is a trend of decreasing numbers of apprentices in-training.
- For England and Wales, apprenticeships account for around 25% - 30% of either Competence or Knowledge based qualification achievement.
- In Scotland, apprenticeships play a very significant part in competence qualification achievement.
- In Northern Ireland apprenticeships are an important factor when it comes to competence based qualifications.

Sections 2 and 3 presented details on the overall numbers of certificates issued against Competence and Knowledge based qualifications, which would have included qualifications gained by apprentices working towards their overall frameworks. This means that the details in this section are a part of this view, however apprenticeships can be identified separately within each nation, they are generally regarded as being “the lifeblood” of the sector and seen as one of the main routes for new entrants into the sector into craft trades.

In broad terms the apprenticeship frameworks and progression routes in England and Wales are similar. An apprentice will be employed throughout their apprenticeship and work towards their Level 2 qualification first, generally taking around two years, with an option to then progress on to a Level 3 in the following year. Northern Ireland will also follow a similar progression route however apprenticeship details for Northern Ireland also include Programme Led Apprentices, which is a form of non-waged provision specific to Northern Ireland.

In Scotland Level 3 is considered the benchmark for most trades and an apprentice will directly progress towards this over three to four years, however in recent years some Level 2 apprenticeships have been introduced for occupations that did not have a Level 3 route. Scotland also has a final Skills Test as part of the apprenticeship, which is not the case in England, Northern Ireland or Wales.

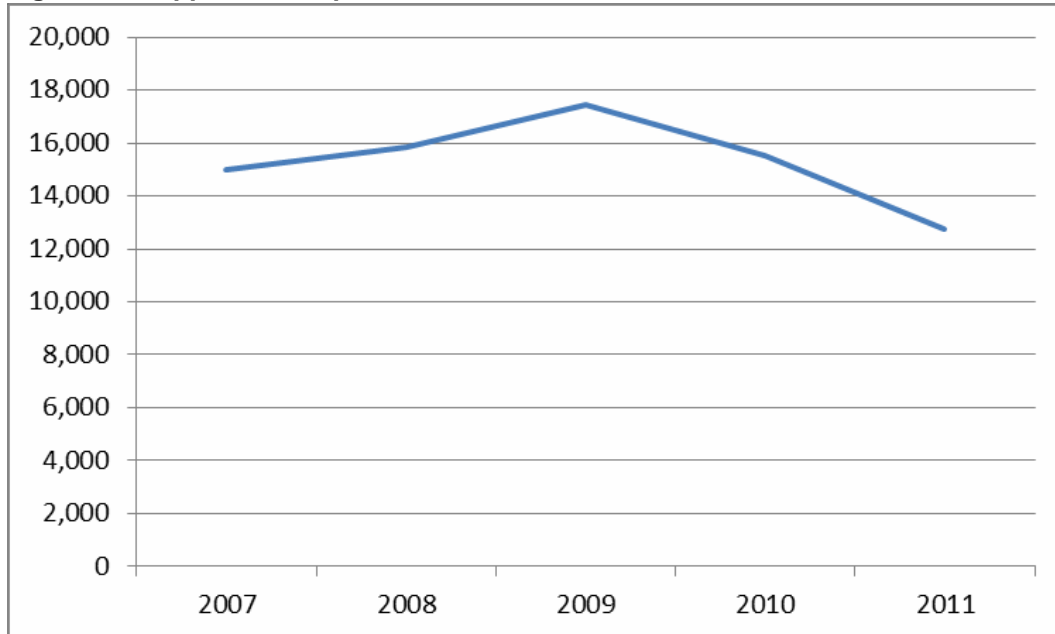
Section 2 also showed that it is possible to take an indicative view on how public funding fits with overall qualification achievement. As an apprenticeship framework usually contains both a competence and knowledge element, this section will produce a similar view for apprenticeships to understand how these contribute to overall qualification achievement numbers across the nations.



4.1 – Headline number of Apprenticeship achievements

The headline number of construction apprenticeships across the UK increased from 2007 through to 2009, however the recessionary effects on the sector have led to falling numbers in 2010 and 2011.

Figure 23 – Apprenticeship framework achievements for all Levels; UK, 2007 – 2011



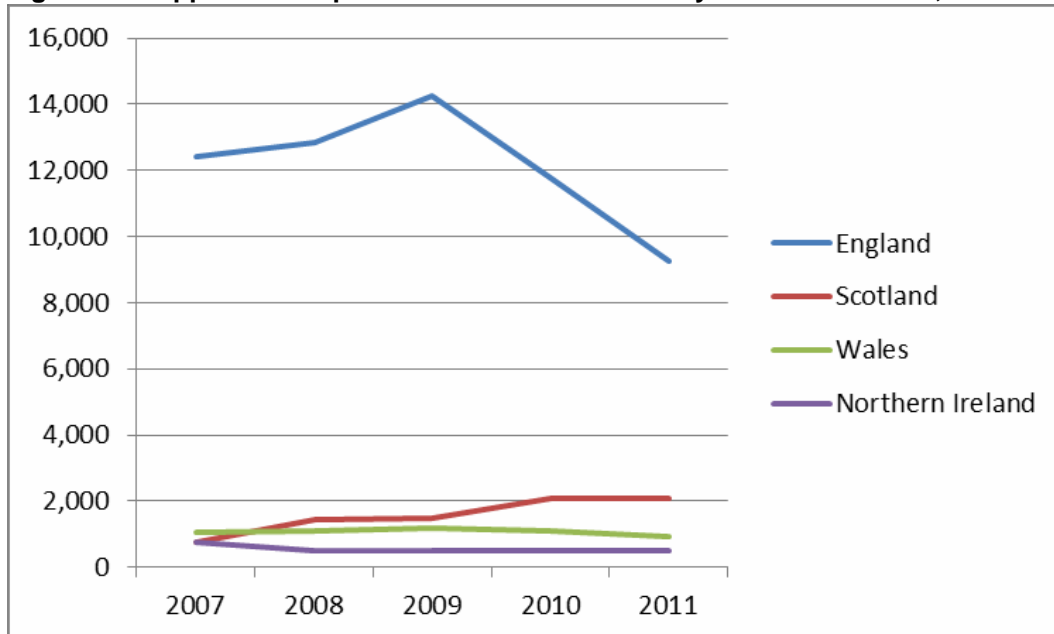
Sources: SFA; SDS; DELNI; DCELLS

The decline in numbers means that the total number of apprenticeship frameworks issued in 2011 was around 15% lower than the number issued in 2007 – a significant decline.

When looking at the frameworks by nation, ref, Figure 24, we can see that Wales and Northern Ireland have slight decreases, Scotland showed an increase in numbers, however the main declines have come from England.



Figure 24 – Apprenticeship framework achievements by Nation: all Levels, 2007 – 2011



Sources: SFA; SDS; DELNI; DCELLS

Apprenticeship achievements will be influenced in each year by the number that start and then go on to successfully achieve their framework – usually recorded as completion/achievement or success rate. However, with the exception of Scotland in 2007, construction apprenticeships completion rates have been generally high and comparable across the nations.

In terms of the numbers, England obviously has more each year when compared to Scotland, Wales or Northern Ireland, which may make the scale of decline more obvious. However this does not hide the fact that when comparing achievement numbers from 2011 against 2007, English apprenticeship achievement numbers have dropped by approaching 25%, significantly more than other nations.

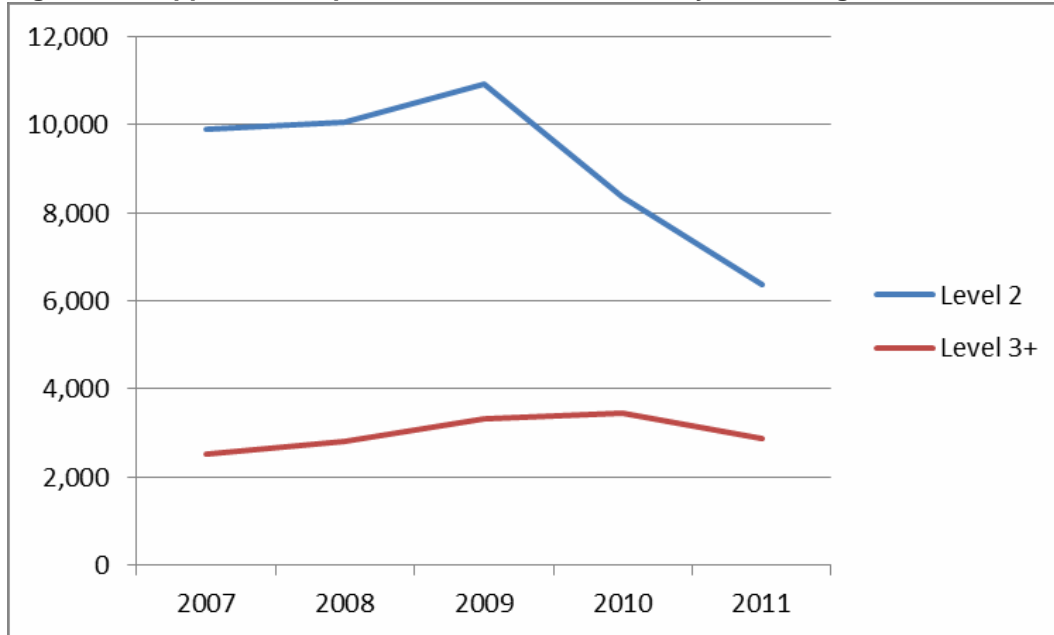
4.2 – Level of Apprenticeships

As noted earlier, there are some differences in the level of apprenticeship with Scotland having the main benchmark and direct entry working towards Level 3, while England, Northern Ireland and Wales is more towards Level 2 with progression to Level 3. There are also some differences in how the level of detail is reported which makes it difficult to give a full analysis by level across all years for Northern Ireland and Wales. Therefore this section will focus on the Level 2/Level 3 details for England.

Figure 25 shows the breakdown of achievements for Level 2 and Level 3+ apprenticeships in England and there are a couple of points to note. Firstly the decline in Level 3+ achievements started in 2010 as opposed to 2009 for Level 2 and secondly, there has been a bigger decline in Level 2 achievements compared to Level 3.



Figure 25 – Apprenticeship framework achievements by Level: England, 2007 – 2011



Source: SFA

The difference in years can be explained by the timing around when an apprentice will complete the different levels. Level 3 apprenticeships are generally a progression from Level 2 and achieved in one year, therefore the pattern of numbers declining a year later would be consistent with this. The sharp decline in Level 2 numbers is mainly due to falling start numbers and if the progression rates from Level 2 to Level 3 remain at previous levels of around 33%, it is likely that Level 3 apprenticeship achievements will decline at a similar rate in future years.

From the data available for Wales and Northern Ireland, this pattern of Level 2 being more prevalent than Level 3 is consistent across England, Northern Ireland and Wales. The progression from Level 2 to Level 3 is harder to judge, however it appears that both Wales and Northern Ireland have a slightly better rate than the 33% seen in England.

For Scotland, Level 2 apprenticeships are a recent introduction and will be covered in more detail in the next section: 4.3 - Recent Trends.

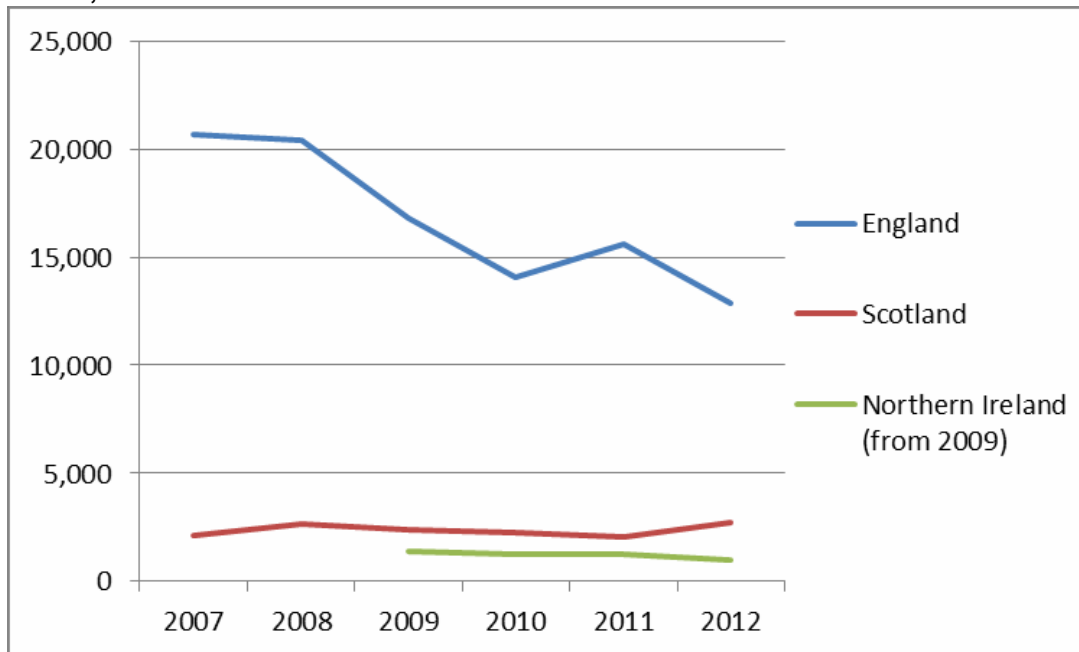
4.3 – Recent Trends

Data on apprenticeships starts can be used to give an indication of recent trends, however at the time of writing, full data on starts for the 2007-2011/12 period was only available for England and Scotland, with partial data available for Northern Ireland.

Figure 26 shows apprenticeship start numbers for England and Scotland and there is clearly a different pattern.



Figure 26 – Apprenticeship framework starts for England, Scotland & Northern Ireland: all Levels, 2007 – 2012



Sources: SFA; SDS; DELNI

In England there was a sharp drop from over 20,000 starts in 2007 and 2008 down around 14,000 in 2010 before a slight recovery in 2011. However recent data indicates a further reduction in numbers to less than 13,000 starts due to the continuing recessionary effects upon the industry. A full breakdown of levels was not available, although indications are that the reduction in start numbers was more pronounced for Level 3 than for Level 2.

Starts in Northern Ireland have also declined from 2009 through to 2012, however the change has not been as pronounced as that seen in England.

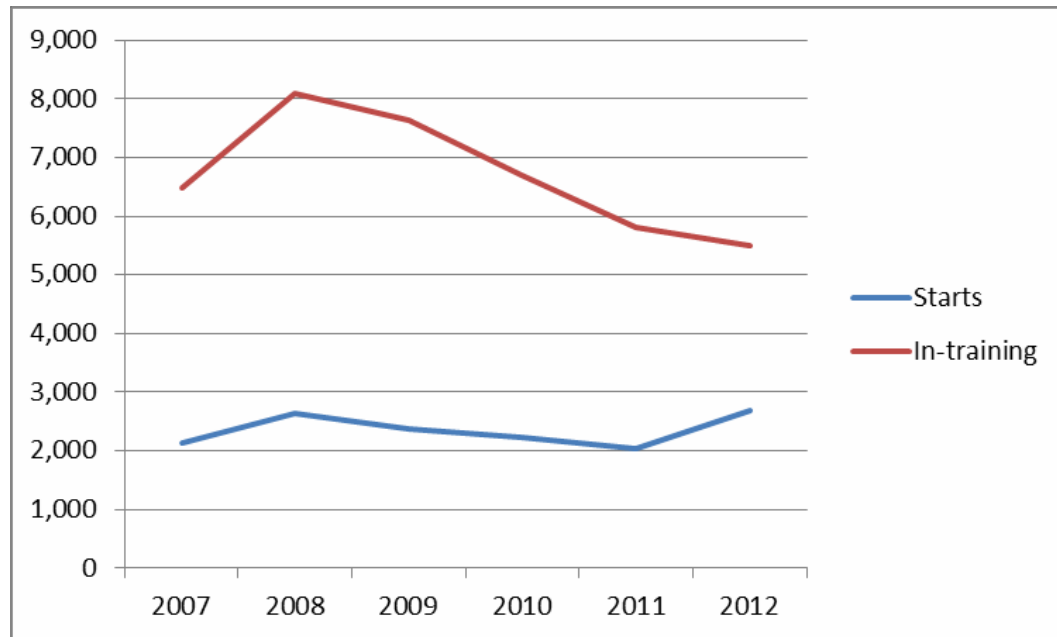
Scotland's start numbers appear to follow a different trend with only slight reductions in numbers from 2008 through to 2010 and a notable increase in 2012, however there are two main underlying reasons that will have influenced this.

Firstly, the Scottish Government gave a boost to all apprenticeships with the introduction of funding to support businesses taking on apprentices, and secondly there has been the introduction of Level 2 apprenticeships for some routes, which would not have been available in previous years.

Both of these factors will have helped to boost the numbers of starts in Scotland for 2011-2012 and looking at the trend of in-training numbers against starts shows a different trend as illustrated by Figure 27 below. Note: the in-training total is the number of apprentices working towards their frameworks in each year.



Figure 27 – Apprenticeship framework Starts Vs In-training for Scotland: all Levels, 2007 – 2012



Sources: SDS

Scotland is the only nation that regularly report starts, achievement and in-training numbers for apprentices and while there is an increase in starts for 2012, there isn't a corresponding increase in the in-training numbers, which indicates slightly divergent trends.

As the total number of apprentices leaving training from 2010 through to 2012 remained similar at just over 3,000 each year, it is likely that the introduction of Level 2 apprenticeships, which would be completed over a shorter time period than a Level 3, are having an influence on both the start and in-training trends for Scotland.

4.4 – Apprenticeships as part of Competence / Knowledge qualifications

As outlined earlier, apprenticeships data is part of the overall figures reported – for England, Northern Ireland and Wales, this would be in both the Competence and Knowledge based qualifications, while for Scotland it would be in the Competence based details. Section 2 gave an estimate of the share of public funding in England and using the apprenticeship data it is possible to give a similar view on how apprenticeships fits within overall qualification attainment.

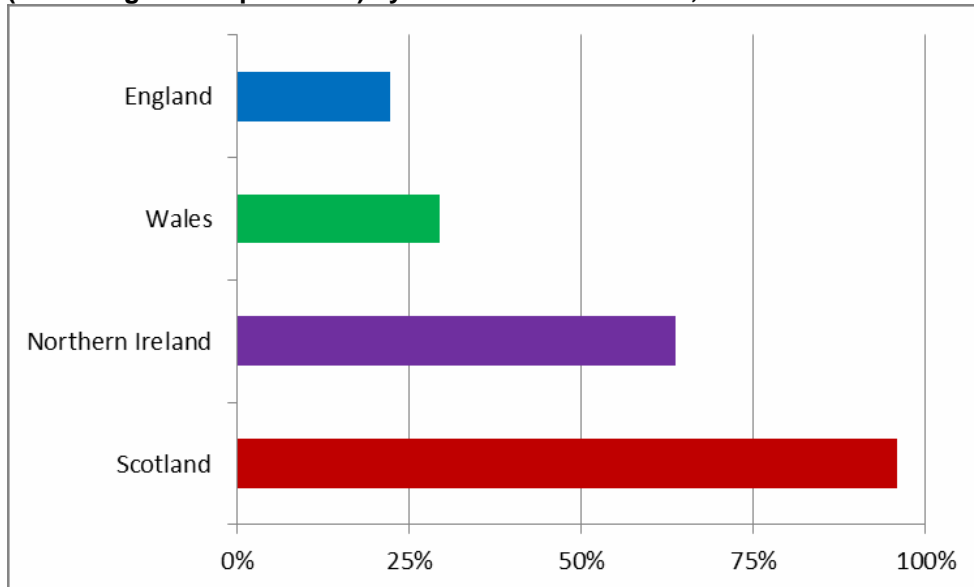
Bearing in mind the constrains outlined in Section 2.5, this view should only be taken as indicative especially as national based data is only available in England, Northern Ireland and Wales from 2011.

Due to the high number of plant operative qualifications achieved, for an occupation where apprenticeships would not be considered the main entry route, the comparison between apprenticeships and overall qualification details is presented without plant operative details being included.

Figure 28 below shows that there is variation across the nations with apprenticeships being the main route for competence based qualification achievement in Scotland, whereas in England and Wales it accounts for between 20% - 30%.



Figure 28 – Estimate of Apprenticeship frameworks as a % of Competence Qualifications (excluding Plant Operatives) by Nation: Levels 2 and 3, 2011

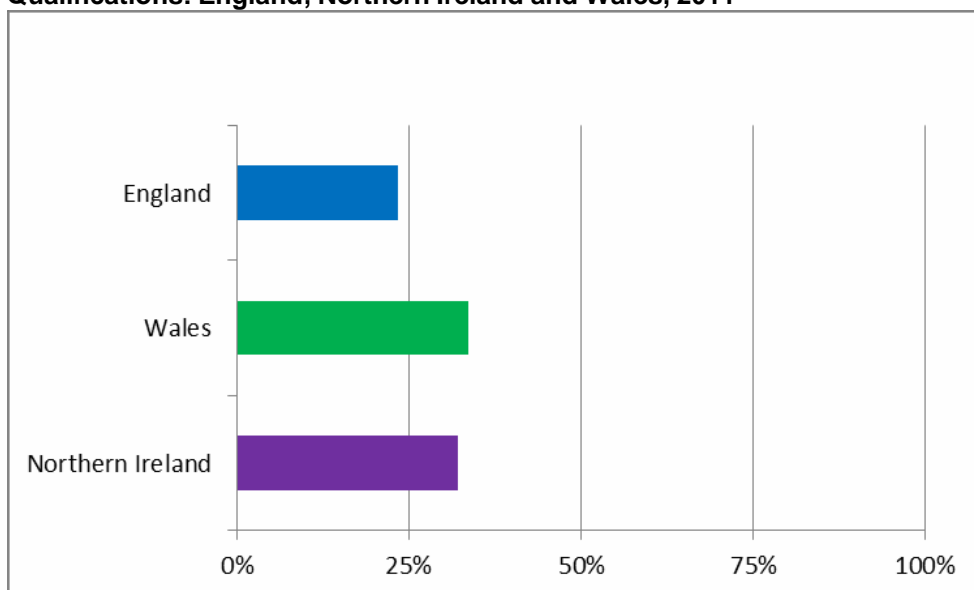


Sources: SFA; SDS; DELNI; DCELLS

Although indicative, this does illustrate that apprenticeships are more important to overall Competence qualification attainment in both Scotland and Northern Ireland, when compared to either England or Wales. Given that there has been funding in England, such as Train to Gain, which has been directed at up-skilling existing workers, it is surprising that Wales and England appear to have a very similar pattern.

For Knowledge based qualifications (applicable to England, Northern Ireland and Wales) the variation between nations is less marked, with apprenticeships being around 23% - 34% compared to all qualifications, ref Figure 29.

Figure 29 – Estimate of Apprenticeship frameworks as a % of Level 2 & Level 3 Knowledge Qualifications: England, Northern Ireland and Wales, 2011





Sources: SFA; SDS; DELNI; DCELLS

This suggests that for England and Wales, apprenticeships account for around 25% - 30% of either Competence or Knowledge based qualification achievement. For Northern Ireland there is an increase in the share when it comes to Competence based qualifications, while for Scotland, apprenticeships play a significant part in overall qualification attainment.



5. Higher Education across the UK

Key Points

- There has been a steady increase the number of first degree and postgraduate qualifiers from 2007 through to 2011.
- There is a consistent pattern when looking at qualifiers across the four nations for both first degree and postgraduates. The increase in numbers has been evenly spread across the UK.
- From 2007 to 2011, building and civil engineering subjects have shown the main increases in qualifying numbers for first degrees.
- For postgraduates it is civil engineering that has shown the biggest increase, although planning is still the main subject area in terms of numbers per year over the timeframe covered.
- There is a different subject area profile when comparing first degree qualifiers against postgraduate, with planning postgraduates having a significant increase in percentage share.
- Enrolment numbers have declined since 2009.
- There is no noticeable variation in enrolment numbers by either nation or subject area, which indicates a broad, consistent decline across the UK.

As with vocational education and training, there are differences in higher education policy and how it is funded across the UK nations; however the Higher Educational Statistical Agency (HESA) was established in 1993 to provide coherent statistics for higher education.

This section therefore focuses on the achievement of University first degree and postgraduate qualifications issued to UK domicile students as reported by HESA. HESA statistics cover nearly all of the UK Universities, therefore they present a central, reliable and robust dataset for the UK, which can be broken down by subject level codes - Joint Academic Coding System(JACS) codes – to identify construction relevant courses, and by UK nations (England, Northern Ireland, Scotland and Wales).

Typically there are seven main subject areas used to classify Construction and the Built Environment for higher education data. These are:

- Civil engineering
- Architecture
- Building
- Planning (urban, rural & regional)
- Landscape design
- Others in architecture, building & planning
- Broadly-based programmes within architecture, building & planning

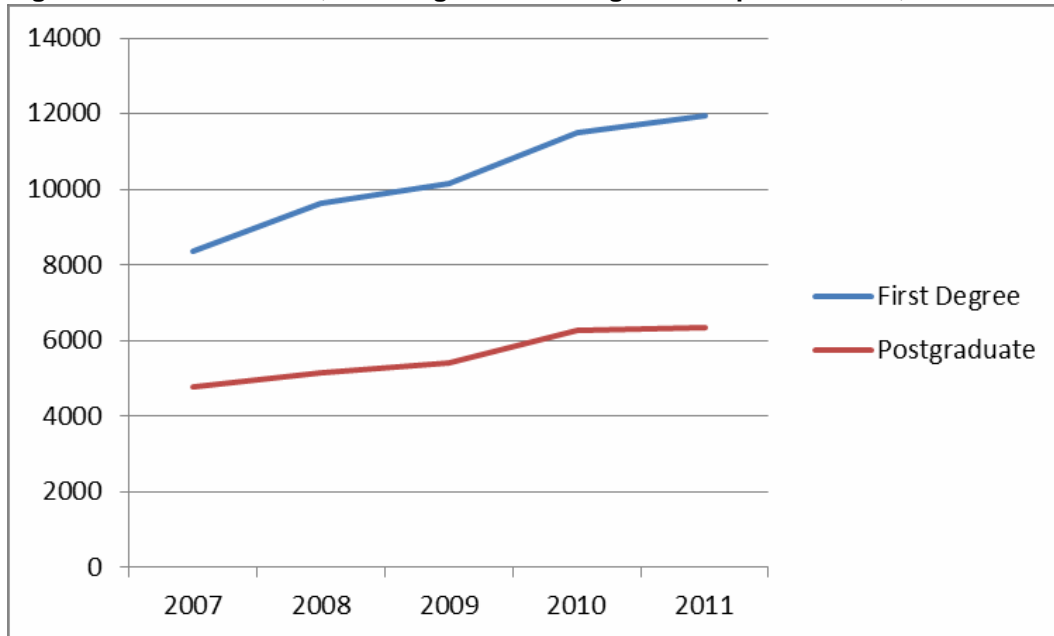
These categories are used by the likes of HESA, UCAS and HEFCE and while most give a clear indication of what is covered the category of Building normally covers construction management and quantity surveying, while building services engineering related degrees can be fall into a number of different areas.



5.1 – Headline number of Certificates issued

Figure 30 shows that there has been a steady increase in numbers for both first degree and postgraduate qualifiers. This is not really a surprise given policies to increase participation in higher education and the increase mirrors the general trend of increasing qualifier numbers.

Figure 30 – Construction, First Degree and Postgraduate qualifiers: UK, 2007 – 2011

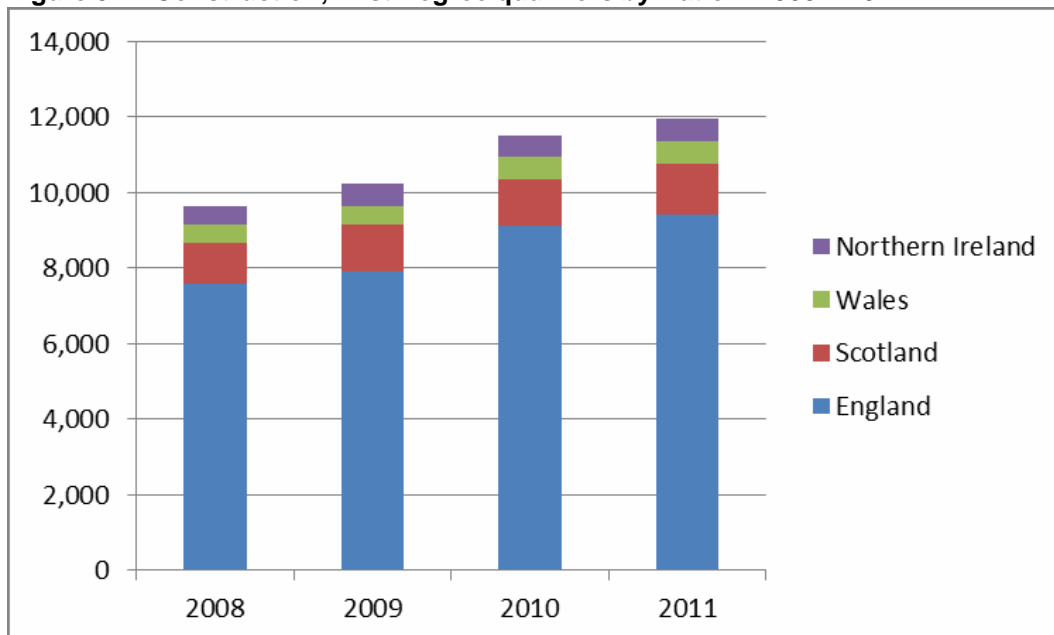


Source: HESA

5.2 – Breakdown across the Nations

In terms of how the qualifier numbers breakdown across the different UK nations, Figure 31 below shows that there has been very little change in the national breakdown. This indicates that over recent years the increase in qualifier numbers has been even across each nation.

Figure 31 – Construction, First Degree qualifiers by Nation: 2008 – 2011



Source: HESA



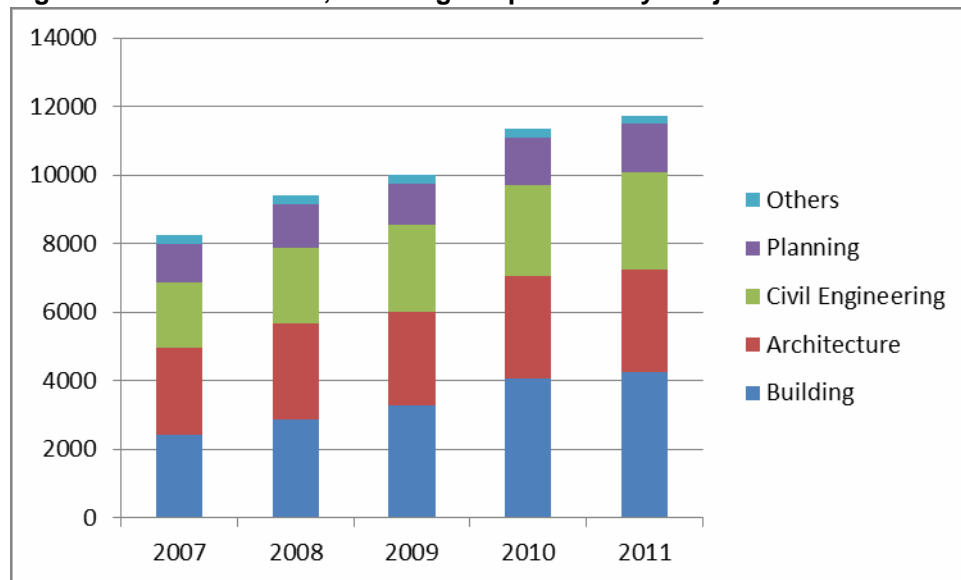
There is some slight variation in breakdown for postgraduate qualifiers, however the overall pattern is broadly consistent with that of first degree qualifiers. England accounts for the majority at around 80%, Scotland 13%, with Wales / Northern Ireland both around 3% - 4% each.

5.3 – Degree Subject Areas

When looking at subject areas there is some variation shown across the years for both first degree and postgraduate qualifiers.

For first degree qualifiers, Figure 32 below illustrates the significant increase in Building subject qualifiers across the years along with an increase in civil engineering. In contrast architecture and planning numbers haven't shown the same level of increase, although both are slightly up on 2007 numbers.

Figure 32 – Construction, First Degree qualifiers by Subject Area: 2007 – 2011

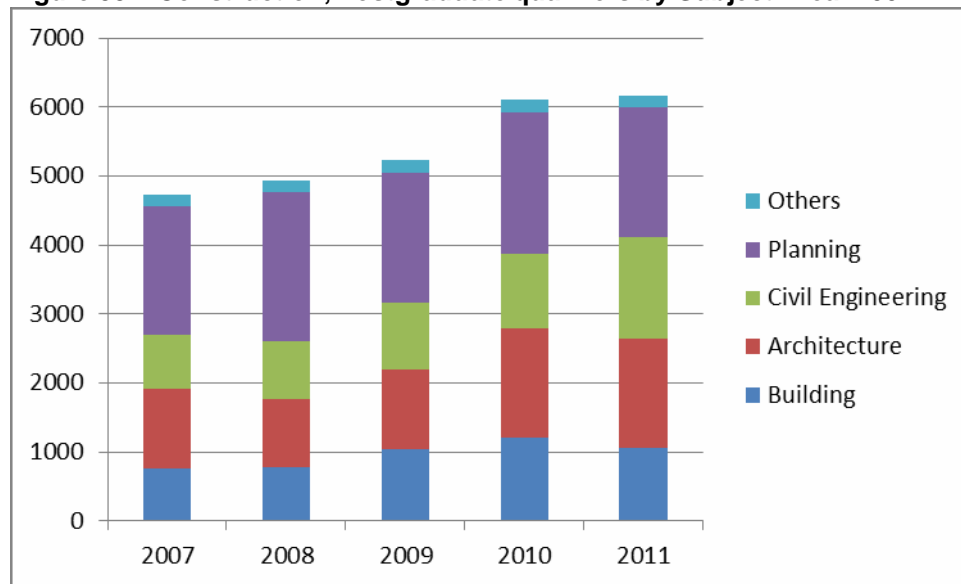


Source: HESA

For postgraduate qualifiers there is a slightly different breakdown, as illustrated by Figure 33



Figure 33 – Construction, Postgraduate qualifiers by Subject Area: 2007 – 2011



Source: HESA

Although there has been an increase in the Building subject area, it is not at the level shown for first degree qualifiers. Planning and architecture are the two main subject areas for postgraduates, possibly reflecting different entry demands for careers in these areas, with planning in particular having a significantly higher share of postgraduate qualifiers when compared to first degrees.

5.4 – Recent Trends

Enrolment data gives a good indication of recent trends, especially as there will be a number of years between enrolment and achievement of a first degree or possibly a postgraduate course.

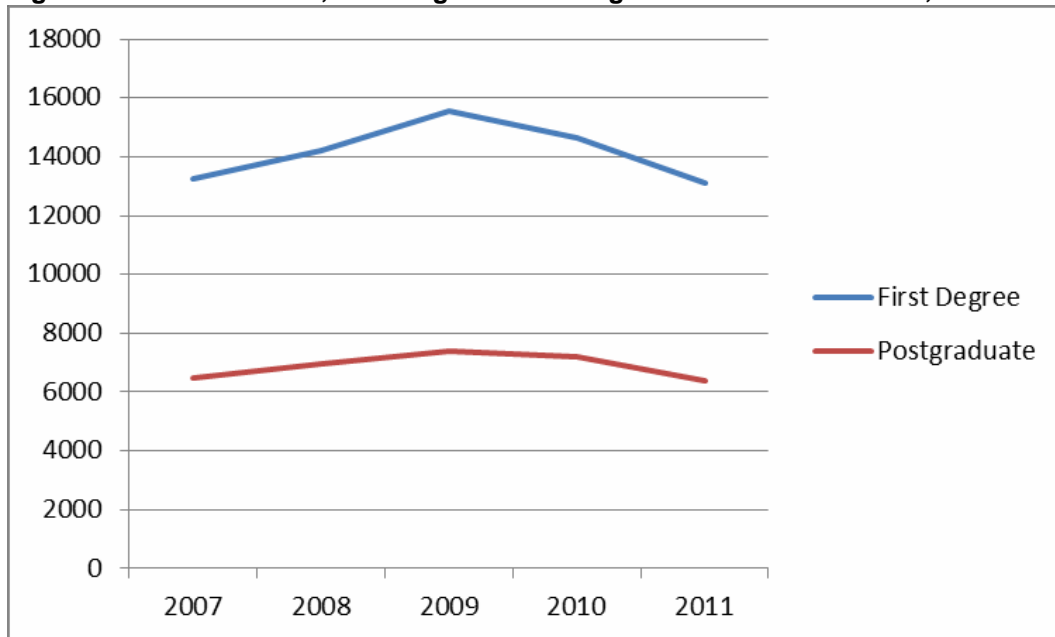
Figure 34 shows overall enrolment numbers on construction and built environment related first degrees and postgraduate courses both dipping in numbers from 2009.

Although there has been a general drop in student enrolment numbers, the timing and level of drop is not quite the same. Overall student numbers started to drop from around 2010, and the level of fall has been lower at -6%, compared to -11% for construction related enrolments.

This drop in enrolments indicates that construction related first degrees and postgraduates qualifier numbers will begin to decline in the coming years.



Figure 34 – Construction, First Degree and Postgraduate enrolments: UK, 2007 – 2011

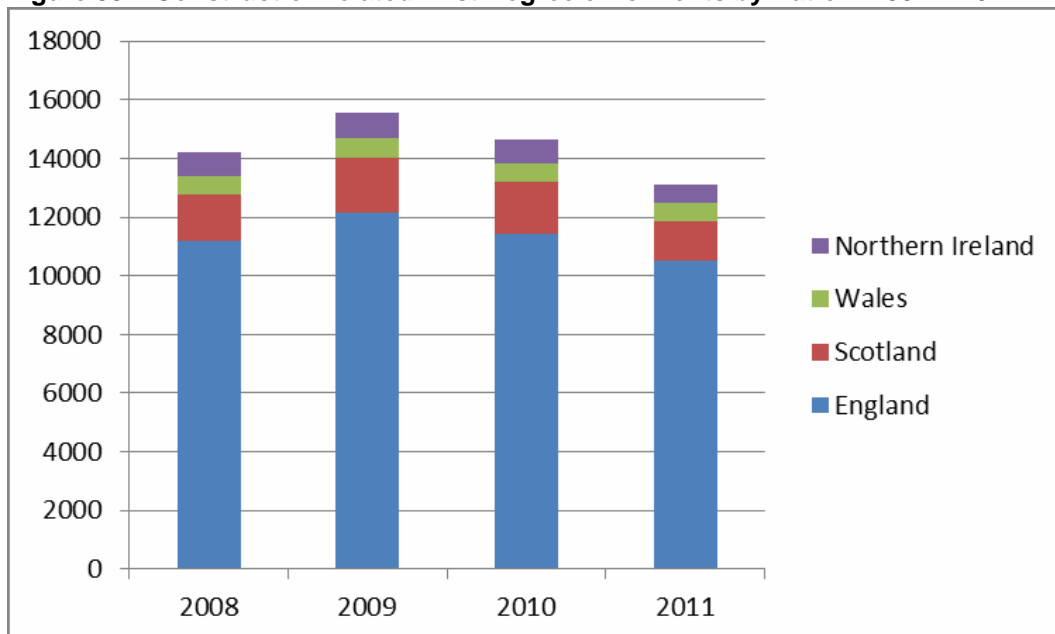


Source: HESA

Looking in more detail at enrolment numbers by nation shows that there is no difference in either first degree enrolments, ref Figure 35. As with qualification data there is a consistency across different years with no notable fluctuation in percentage shares between the different nations.

A similar pattern occurs for postgraduate enrolments, with no significant differences noted in national patterns across the years.

Figure 35 – Construction related First Degree enrolments by Nation: 2007 – 2011



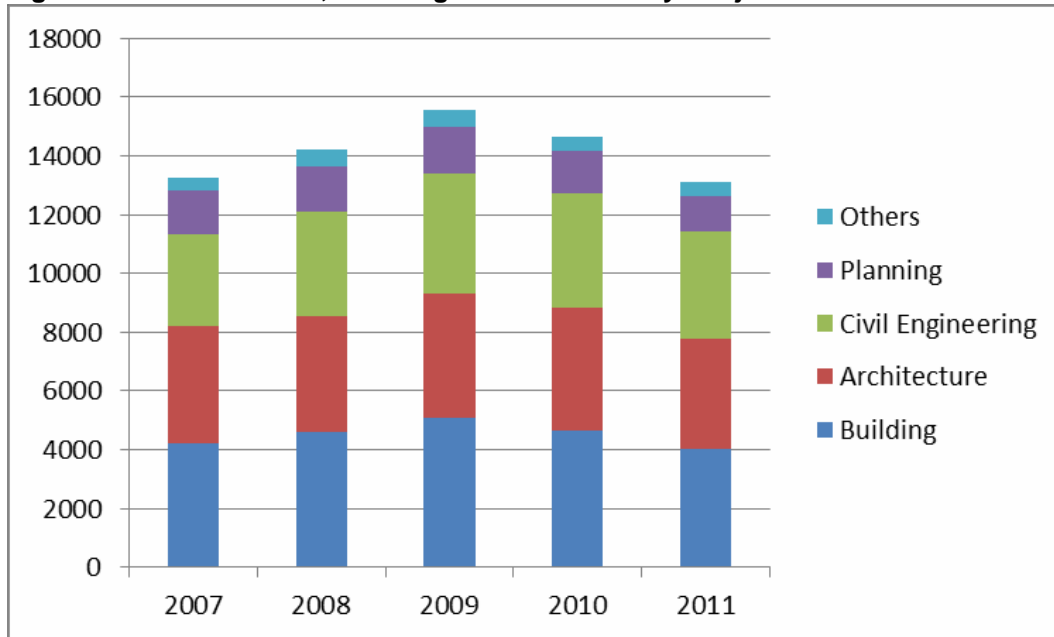
Source: HESA



When looking at enrolments by subject areas; Figure 36 illustrates first degree enrolments, while Figure 37 illustrates postgraduate details. Again this highlights that while there is a trend for reducing numbers, the reduction is consistent across nations and subject areas.

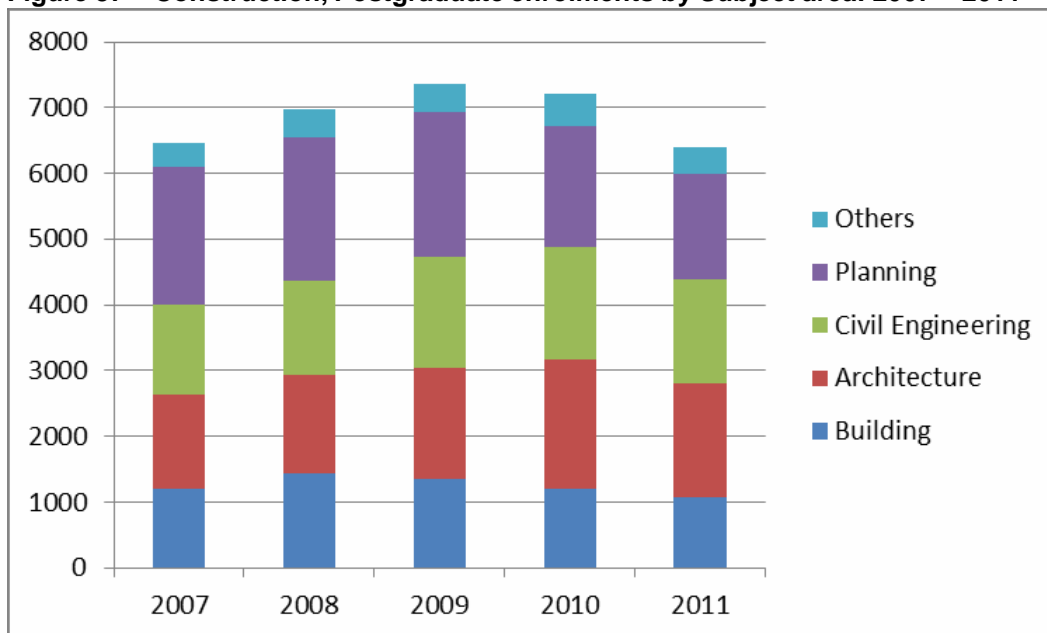
Although there are some small differences across the years for the different subject areas, the pattern for first degree and postgraduates is broadly stable. However, as with qualifiers, there is a notable difference between the two different profiles with first degree enrolments having noticeably more in the Building subject area, while postgraduate enrolments are higher in Planning.

Figure 36 – Construction, First Degree enrolments by Subject area: 2007 – 2011



Source: HESA

Figure 37 – Construction, Postgraduate enrolments by Subject area: 2007 – 2011



Source: HESA



6. Conclusions

Key Points

- In the short term the overall numbers of construction related training and education achievements look set to decline.
- The decline in numbers is across all nations.
- Public funding plays an important part in supporting further education qualification achievement and part of this will be Apprenticeships – especially in Scotland.
- England and Wales show broadly consistent patterns in trends when looking at qualification levels and occupational/subject area breakdowns.
- In England and Wales Level 1 Knowledge based qualifications account for around 50% of all Knowledge based achievements.
- Across all nations Plant Operators are the main occupation for Level 2 Competence qualification achievements.
- Trend is for plant operator achievements not to decline by as much as other occupations.
- There is more fluctuation and changing patterns seen in Level 2 qualifications than in Level 3. Level 3 patterns are more consistent across nations and occupational breakdowns.
- While achievements for higher education are increasing, since 2009 there has been a decrease in start numbers which will begin to impact on achievements in coming years.
- Over the time period shown, higher education trends and patterns are consistent across the different nations and subject areas, indicating some degree of longer term stability.

The first conclusion is that in the short term the overall numbers of construction related training and education achievements look set to decline. This is indicated by the achievement and start trends for both further and higher education, with this decline being more noticeable for Competence based and degree qualifications.

Although this is happening at a time when the general economy and construction sector is experiencing further recessionary effects, the decline in overall training comes at a time when wider research indicates a need for a more flexible and productive workforce, for example increasing importance of energy efficiency measures across the built environment. A key element in having a more flexible and productive workforce is making sure that it is equipped with the relevant skills and training for future needs, which indicates a possible tension with the trend of declining numbers.

This decline in numbers is being seen across all nations however there are some differences when it comes to the actual patterns and trends seen in each. In part this will be due to the fact that education and training policy is devolved in each nation, especially in Scotland which is structurally different to other nations, although the relative numbers of people employed in the industry, performance and composition of the sector across the nations will also have an effect.

Public funding has played an important part in supporting qualification attainment for each nation and the indication is that this has become more important in recent years. Apprenticeships are an important part of public funding and play an increasing part in support for learners in Northern Ireland and Scotland when compared to England or Wales.



Although there are differences between England, Northern Ireland and Wales, they use qualifications that are recognised across the three nations and Apprenticeships operate under similar principles. The most pronounced difference is the number of Level 1 Knowledge based qualifications achieved in England and Wales, which account for around 50% of all Knowledge based achievements in each year, with a trend for increasing numbers. For the further education providers, this will be a significant number of learners in each year and it could provide a possible entry route for people to gain skills prior to entering the sector. However the sector tends not to recognise Level 1 achievements, preferring Level 2 Competence qualifications as an initial benchmark for England, Northern Ireland and Wales, and Level 3 as a benchmark for most occupations in Scotland. Again, this points to a possible tension between education/training and what industry/employers look for, despite the fact that both will want to have learners with relevant skills.

While there is variation in patterns and trends across the nations for qualifications at Level 1 and Level 2, for Level 3 + further education details the patterns and trends are more consistent. This indicates some stability, possibly linked to longer term trends in the construction sector, while Level 2, being the starting point for most occupations is prone to fluctuation as the sector responds to changes in the macro environment.

In contrast to further education, higher education appears to exhibit a more stable and consistent pattern across the timeframe covered subject areas and nations. In part this will be due to the longer time periods for degree and postgraduate qualifications when compared to further education, however it will also be due to the data being presented in broader subject areas groups which would smooth out some of the detail.

For both further education and higher education the emerging trends for declining numbers for the construction sector are a cause for concern as there is the potential for future skills shortages. Indications are that while the sector is still in recession, skills shortages are less of an issue for employers when compared to general business survival, however there are reports that show the sector still has skills shortages and hard to fill vacancies. When there is an upturn in business conditions it is likely that there will be an increase in skills shortages being reported as it generally takes some time before increasing demand filters through to training and education achievements. This highlights the continued need to be aware of the underlying picture as it emerges and how this relates to the demand that exists for training and education, especially if the sector is to stand any chance of moving towards more responsive, employer driven training and learning.

In terms of future work to improve the view of training and education supply for the construction sector, there are three main points that emerge.

1 - New Entrants: there is a significant amount of Level 1 Knowledge qualifications delivered in England and Wales, which is not evident in Northern Ireland (same qualifications) or Scotland (different structure).

- What part do Level 1 qualifications have towards an entry route for workers in England & Wales?
- Does it equip people with the right skills that industry is looking for?
- How, or should these qualifications fit with pre-Apprenticeship training?
- What is the employment destination of learners after further education – do they work in the sector?



2 – Existing Workers: training and education can never be solely focused on the training on new entrants, it also has to respond to the demand for training and career aspirations of existing workers in the sector. This is an important aspect given the high levels of self-employment in the sector along with over 95% of employers being classed as small to medium sized enterprises.

Being able to respond too, and meet this demand will be a critical aspect in ensuring that the construction and built environment sector has a suitably skilled, flexible and productive future workforce which is able to meet future challenges. This requires an understanding of;

- What are the drivers of future training demand likely to be for the sector?
- What is the anticipated scale of impact?
- How to people develop their skills or keep them up to date as they progress?
- What are the paths for career progression?
- What role does skill development play in the creation of successful businesses?

3 – Government Support: as mentioned during the introduction there is a considerable amount of reform happening around further and higher education across all nations as they look to provide a structure that will deliver skills that will meet employer demand and deliver wider economic benefits. The analysis also identified that government support through the likes of public funding for learners has become increasingly important in recent years, however this is at a time of constraints on public finances.

- What is the future direction of support for learners?
- What is the balance between public and private funding of training and education?

The report began by outlining the changes that are taking place around schools, further education and higher education. While there is still some uncertainty around how these initiatives will take shape, this change does present an opportunity to examine how skills and training are delivered and present a vision on how this could be achieved in the future.

As CITB, the Sector Skills Council, with our partners, the Construction Industry Council (CIC) and CITB-ConstructionSkills Northern Ireland, we are committed to working together and with our industry, to deliver industry-led skills and training solutions by providing a coordinated sector-based approach to skills and giving the industry one voice on its training needs. Producing a view on training and education supply is a part of this objective as it supports providers to deliver ‘right skills, right place, right time’ and ensure industry’s current and future skills needs are met with efficient, affordable and high quality training.

By developing this authoritative understanding of skills provision in addition to wider industry research CITB will endeavour to provide as up-to-date a picture as possible to ensure that the impact of skills shortages and/or skills gaps is minimised.



7. Appendices

Appendix A: Construction Skills Network (CSN) Occupational Groups 2013-2017

Appendix B: ConstructionSkills' Footprint SIC 2007

Appendix C: Glossary of Acronyms



Appendix A

CSN Occupational Groups 2013-2017 Forecast

- Senior managers
- Construction managers
- Office based non-construction staff
- Wood trades and interior fit-out
- Bricklayers
- Building envelope specialists
- Painters and decorators
- Plasterers and dry liners
- Roofers
- Floorers
- Glaziers
- Specialist building operatives
- Scaffolders
- Plant operatives
- Plant mechanics/fitters
- Steel erectors/structural
- Labourers nec*
- *Electrical trades and installation*
- *Plumbing and HVAC*
- Logistics
- Civil engineering operatives nec*
- Non-construction operatives
- Civil engineers
- Other construction professionals
- Architects
- Surveyors

*nec – not elsewhere classified

Italics denotes that these occupations are not included in the supply side analysis



Appendix B

ConstructionSkills' contractual footprint, 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
- 71.12/2 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



Appendix C

Glossary of acronyms

CSCS	ConstructionSkills Competence Scheme
CSN	Construction Skills Network
DCELL	Department for Children, Education, Lifelong Learning and Skills (Wales) DELNI Department for Education and Learning Northern Ireland
FE	Further Education
HE	Higher Education
HESA	Higher Education Statistics Agency
HNC	Higher National Certificate
HND	Higher National Diploma
NAS	National Apprenticeship Service
NDAQ	National Database of Accredited Qualifications
NI	Northern Ireland
NOS	National Occupational Standards
NPAs	National Progression Awards NQF National Qualification Framework NVQ National Vocational Qualification
Ofqual	Office of Qualifications and Examinations Regulation
ONS	Office for National Statistics
PDA	Professional Development Awards QCF Qualification and Credit Framework SFA Skills Funding Agency
SIC	Standard Industrial Classification
SOC	Standard Occupational Classification
SPC	Skills Provision Committee
SQA	Scottish Qualifications Authority
SSC	Sector Skills Council
SVQ	Scottish Vocational Qualification
UKCES	UK Commission for Employment and Skills
VRQ	Vocationally Related Qualification

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