



## Construction Sector – Skills Gaps and Solutions In Greater Cambridge

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A Report by GCP

Prepared by Andrew Wheeler – Trainagain

For the Construction Sector in Greater Cambridge

March 2010

# 1. Executive Summary

## Introduction

How do we bridge the gap between supply and demand for industry training in the construction sector in Greater Cambridge? Employers want short courses which make a difference to their business. Colleges and universities deliver government funded training. This is the essence of the supply and demand conundrum.

This report sets out to identify skills gaps and solutions for the Construction sector in the Greater Cambridge Area which covers the county of Cambridgeshire and the neighbouring districts of Uttlesford in Essex; St Edmundsbury and Forest Heath in Suffolk; and North Hertfordshire.

## Background

The report is part of an European Social Fund (ESF) project called the Greater Cambridge Employer Skills Forum. It is set in the context of the Leitch Report on skills development. In order to become a 'world leader' in skills there needs to be a greater emphasis on engaging with employers and creating a genuinely 'demand-led' system for the planning and delivery of skills.

Recognising these two objectives (employer engagement and skills demand), GCP is establishing an Employer Skills Forum. A key business need in Greater Cambridge for example, is to better match the range of training provision to employer workforce needs and this is a primary aim of the Employer Skills Forum project.

## Project Aims

1. Set up a range of sub-regional sector skills focus groups comprising generic business representative organisations; sub-regional business groups and associations; FE & HE representatives.
2. Disseminate information to the Forum on skills activity in key sectors focusing on full-cost and funded learning.
3. Share information around seven key skills themes (qualifications; training provision; training demand; government intervention; employer sector based networks; employees training needs analyses; and entry level issues) analyse and disseminate across forum.
4. Work with colleges, universities and private training providers in the sub-region to develop new ways of responding to employer needs.

## Construction Sector in Greater Cambridge – The Current Picture & Issues:

The construction industry is vital to the Greater Cambridge economy. The sub-region reflects both the regional and national picture of a male oriented industry dominated by small and micro businesses. Many workers in the industry continue to have self-employed status. This sub-contracting network which spreads out across the sector suits the cyclical and volatile nature of industry activity – where order books can go from full to empty on the basis of national economic confidence. In many ways, the construction sector acts as an excellent barometer for the economy as a whole.

The recession has had a large impact on the construction industry and it is unlikely to recover or at least return to 2007 levels of output for several years. There are some 6,000 construction related businesses operating in Greater Cambridge – most of these are very small businesses, employing fewer than 5 staff. The sector employs around 35,000 people in Greater Cambridge.

By its nature, the construction industry skills profile is driven by regulation. The Construction Industry Training Board (CITB) is well known to employers. It has acted as both a policeman (demanding a training levy) and an angel (providing training grants to smaller businesses); and providing a voice for the industry. Much of the training on offer relates to new regulations (electrical appliances; gas fitting; water/heating; and of course health & safety). Construction workers generally need a “competence card;” there are several card schemes to choose from. CITB is now part of Construction Skills, the sector skills council, which also owns and manages the National Construction College (NCC). The headquarters for the sector skills council, and the largest training campus of the NCC is based just outside Kings Lynn at Bircham Newton.

Skills gaps are evident throughout the industry. Although practical and technical skills gaps are regularly reported, many of these diminish over time, as workers become more experienced in the job. However, management skills gaps are more difficult to overcome merely through experience and they are often harder to identify than practical skills. Experienced construction workers who are promoted into management jobs often need to learn new skills – oral communication; team working; delegating, supervising; writing; IT customer focus; and finance to name a few areas of importance – and if these skills are deficient it will not only damage the individual’s career prospects but may also affect company performance. In the Greater Cambridge area these skills gaps are evident.

Some skills gaps simply go away (through learning on the job); others are remedied through attending a specific course. But some skills gaps remain ‘embedded’ and may need diagnostic support to ‘uncover’ them.

When it comes to provision, there is plenty of reason to feel reassured that skills gaps can be met. Colleges in the area deliver a range of industry specific courses and have learnt over the last decade how to market their provision more effectively. The National Construction College has a vast campus dedicated to construction skills and it offers a range of industry specific short courses. Anglia Ruskin University is an accredited learning centre for the Chartered Institution of Building (CIOB), and works closely with the local FE sector to provide progression “accords” for students. The University of Cambridge offers a range of degrees which are validated by RIBA (Royal Institute of British Architects).

Against this positive picture there are however some weaker areas to note: Many institutions are still too reliant on traditional course terms: it is interesting to note that colleges still plan apprenticeships around the academic year, as opposed to delivering an apprenticeship programme based on recruitment patterns in the sector. Colleges tend to have a skeleton staff outside of term times.

Moreover government funded programmes such as Train to Gain, though a welcome income stream, have brought with them a skewed customer focus: it is not employer targets which colleges try to meet, but government targets. So although many colleges have large client databases (e.g. Cambridge Regional College has a contact database of 1200 employers), it is not clear whether businesses in general, would choose their local college for full cost bespoke training. Given the likely reduction in government funding for skills in the future, this is more than an academic issue: full-cost courses, not subsidised by government, are set to become the norm. Training providers need to develop a new competitiveness based around satisfying employer’s upskilling choices.

Colleges in the Greater Cambridge area provide a range of construction specific short courses, many relating to regulation updates (e.g. 17<sup>th</sup> Edition Electrical wiring). The National Construction College offers a dedicated Construction short course programme with a range of leadership and management options (including sustainability management) and a diagnostic tool which helps uncover management skills gaps.

University provision is excellent in terms of graduate and post graduate programmes but they are less effective at delivering demand led industry specific short courses.

Looking to the future, the Hive – encompassing the new BRE Innovation Park; SmartLIFE Low Carbon; and the Good Business Centre – offers exciting prospects for low carbon construction development and the possibility of a training supply chain that reaches out to smaller sub-contractors. It would appear that neither Cambridge Regional College or BRE (through BREEAM – the BRE Environmental Assessment Method) – currently offer courses to small businesses on how to construct buildings that receive high BREEAM ratings. BREEAM is rightly concerned with training assessors for eco-building, and Cambridge Regional College is centrally involved in training a new generation of environmentally aware builders who will undoubtedly contribute to a low carbon environment in the East of England. But neither of these worthy training activities address the issue of upskilling small construction sub-contractors. Whilst the Chartered Institute of Building Services Engineers (CIBSE) offer a range of environmental courses through their Mid Career College, few events are currently held in this region.

**Recommendations:**

To clear the ‘backlog’ of skills gaps in the sector would require a concerted effort by employers (to pay for), employees (to willingly attend) and the training sector (to deliver what’s needed).

There is a choice between doing nothing and accepting that some skills gaps will persist to the cost of the industry, or acting to remove barriers and deliver the skills the industry needs.

Five specific actions are recommended:

1. Set up a construction employers forum (possibly online) to regularly meet with FE, HE and the National Construction College to express training needs, preferred delivery methods and best provider partnership arrangements. Look at the possibility of linking in this work with the Construction Skills Network East Observatory meetings.
2. Establish an online brokerage system for short courses and employer requests so that a market place for construction skills in the GCP area is clearly accessible.
3. Invite Construction Skills to carry out free diagnostic tests with construction managers with a view to delivering construction specific leadership and management short courses.
4. Continue to explore opportunities for engaging small and micro construction businesses through existing networks and trade associations.
5. Specifically look into construction sustainability courses for the sub-contractor market and the small business sector in general.

## 2. Introduction

This report sets out to identify skills gaps and solutions for the Construction sector in the Greater Cambridge Area which covers the county of Cambridgeshire and the neighbouring districts of Uttlesford in Essex; St Edmundsbury and Forest Heath in Suffolk; and North Hertfordshire.

### **Background**

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### **Challenges & Clarifications**

Sector Skills Councils tend to focus on the 14 – 19 agenda yet the UK Commission for Employment & Skills (UKCES) suggests that 75% of our 2020 workforce is already in work. The majority of these people in work are over 19.

The distinction between skills shortages and skills gaps is important. Skills shortages refer to the need for new people with the right skills to join the workforce of a particular sector. Skills gaps are about existing people in the workforce not having the right skills to perform the job they are doing.

At the company level, the workforce needs to be 'fit for purpose', and this might include a range of unaccredited training workshops to upskill people, rather than embarking on a formal qualification.

Skills agencies and public sector organisations involved in collecting data on skills all focus on 'funded learning'. Short courses and unfunded courses all go unreported so it is difficult to build up a picture of industry skills activity by looking at government agency statistics.

### **So this project is about:**

- People in work rather than 14 – 19 agenda
- Skills gaps rather than shortages.
- Skills as well as Qualifications
- Funded as well as unfunded learning

### **Project Aims**

1. Set up a range of sub-regional sector skills focus groups comprising generic business representative organisations; sub-regional business groups and associations; FE & HE representatives.
2. Disseminate information to the Forum on skills activity in key sectors focusing on full-cost and funded learning.
3. Share information around seven key skills themes (qualifications; training provision; training demand; government intervention; employer sector based networks; employees training needs analyses; and entry level issues) analyse and disseminate across forum.

4. Work with colleges, universities and private training providers in the sub-region to develop new ways of responding to employer needs.

#### **Project Outcomes**

- Better employer understanding of the skills economy and workforce development opportunities;
- Improved communications between employers and support agencies potentially leading to improved response times;
- Enhanced levels of analysis around skill issues especially relating to different sectors.
- Use project research to influence co-financers commissioning of sectoral skills interventions.

This report is divided into 7 sections which are described below:

Section 1 provides an executive summary of the report as a whole and Section 2 sets out the context in which it has been written. In Section 3, the construction industry's characteristics are explored, before looking specifically at skills gaps in the following section (4). In Section 5 a brief overview of FE and HE provision relating to construction is set out and Section 6 identifies possibilities for 'bridging the gap'. Appendix 1 offers a list of relevant associations and institutes and the final provides a list of references used in the report.

### 3. Industry Characteristics

#### Industry Description

The construction industry is vital to the Greater Cambridge economy. The sub-region reflects both the regional and national picture of a male oriented industry dominated by small and micro businesses. Many workers in the industry continue to have self-employed status. This sub-contracting network which spreads out across the sector suits the cyclical and volatile nature of industry activity – where order books can go from full to empty on the basis of national economic confidence. In many ways, the construction sector acts as an excellent barometer for the economy as a whole.

#### Sector Skills Councils

Whilst there are several Sector Skills Councils (SSCs) which have a remit covering part of the wider construction sector the main SSCs for the industry are shown below:

Sector	Council	Description	Areas
Construction	ConstructionSkills	Construction	house building (public and private); infrastructure (roads, railways and utilities); non- residential building in the private sector (schools and colleges, hospitals, offices); industrial building by the private sector (factories, warehouses); and commercial building by the private sector (offices, shops, entertainment, health and education)
Energy & Utility Skills	Energy & Utility Skills	Electricity, gas, waste management and water industries	generation, transmission and distribution of electricity, combined heat and power; production and distribution of gas and water; and removal of waste water and treatment of waste products
Building Services Engineering	SummitSkills	Building services engineering	design, installation and maintenance of electrotechnical, heating, ventilation, air conditioning, refrigeration and plumbing; and oil and gas fitting design, installation and maintenance
Process & Manufacturing	Proskills UK	Process and manufacturing in the building products, coatings, glass, printing, extractive and mineral processing industries	coatings; extractive and mineral processing industries; glass manufacture and glazing; building products and refractories; print and printed packaging

For the purposes of this report, Construction Skills is taken as the main SSC for the industry.

#### Construction Skills

Construction Skills is the Sector Skills Council and Industry Training Board for the sector. It is more established than most other SSCs and has a National Construction College; a National Academy and an Industry Training Board (CITB) within its portfolio.

The National Construction College is the training division of the sector skills council and trains in excess of 30,000 people a year. It has 7 campuses across the UK; National Construction College East is based close to Kings Lynn.

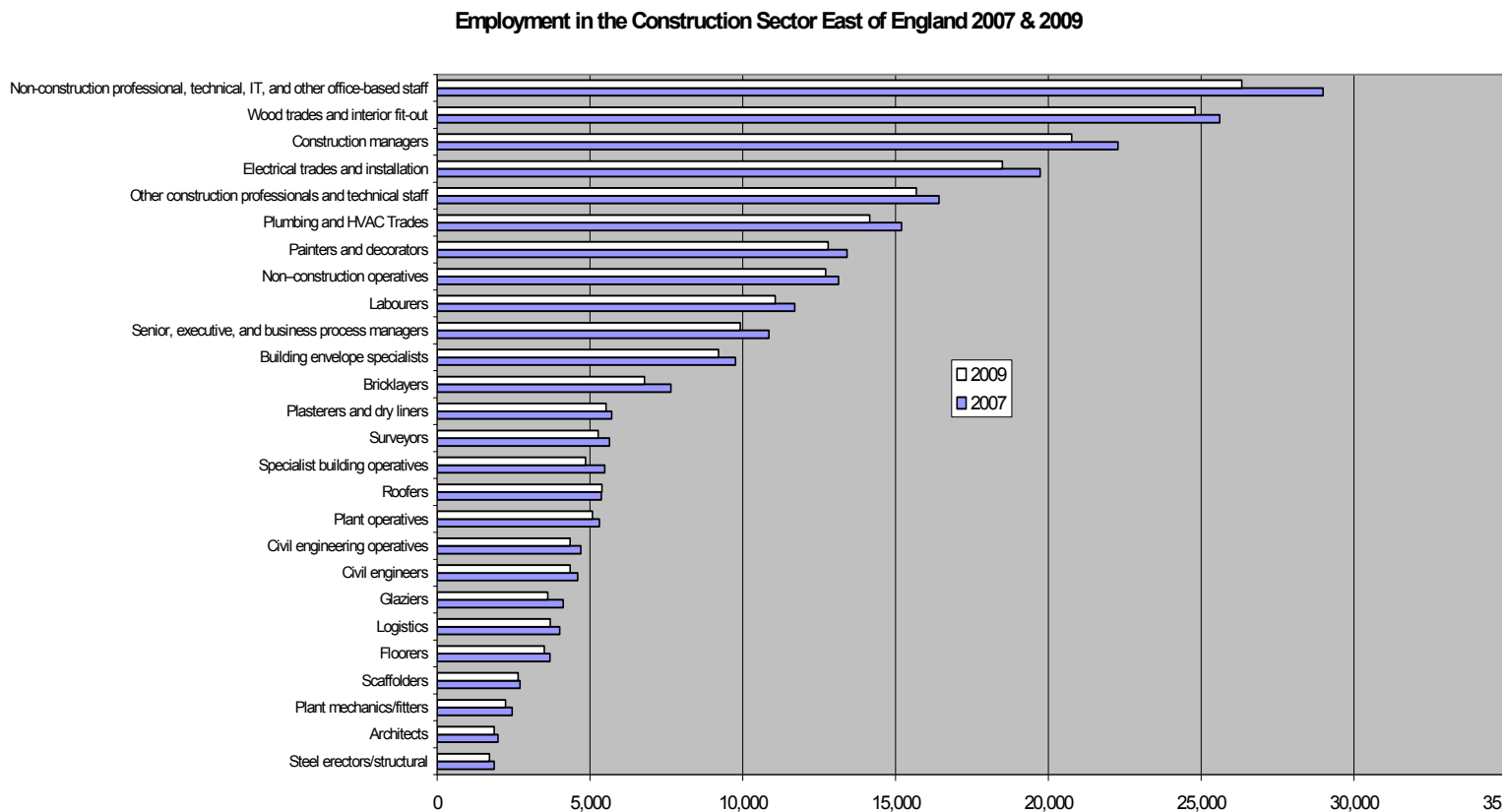
The National Construction College provides a range of short courses specifically for people in the industry. These range from management and leadership, sustainability and health and safety, to plant operations, scaffolding and general construction.

### Industry Size & Makeup

In 2007 employment in the sector was estimated at more than 250,000 nationally, but the recession has reduced the size of the sector (2009 estimate = 237,000) and it is unlikely to recover to 2007 levels until after 2013 (Construction Skills Network 2009). Construction accounts for around 8% (35100) of employment in the GCP area, and around 12% of businesses (5895) (LSC Local Needs Assessment – Cambridgeshire 2008).

The construction sector can be split into a range of job roles. Graph 3.1 provides a breakdown of these different jobs for the East of England, comparing 2007 with the forecast for 2009.

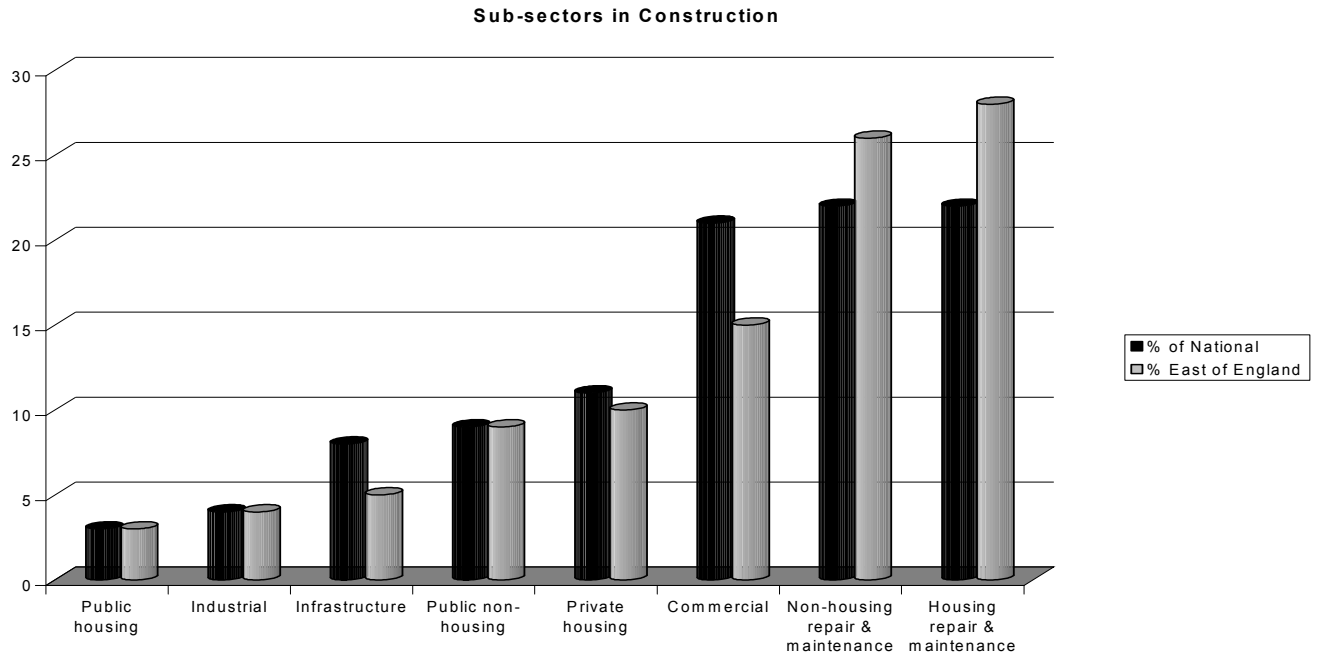
Graph 3.1



Source: Construction Skills Network – East of England (2009).

The sector can be divided into eight sub-sectors. The relative importance of these sub-sectors compared to the national picture is shown in the graph below.

Graph 3.2



Source: Construction Skills Network Labour Market Intelligence Report 2009-2013

The East of England is more reliant on repair & maintenance work than other regions (only the south east region has a similar R&M profile). Repair & maintenance (for housing and non housing) represented 54% of construction output in 2008 in this region compared to a 43% average in the UK. For GCP this is significant given the importance of Cambridge University to the repair and maintenance sub-sector.

Graph 3.3 shows a small dip in the number of construction business operating across the UK between 2008 and 2009.

Graph 3.3

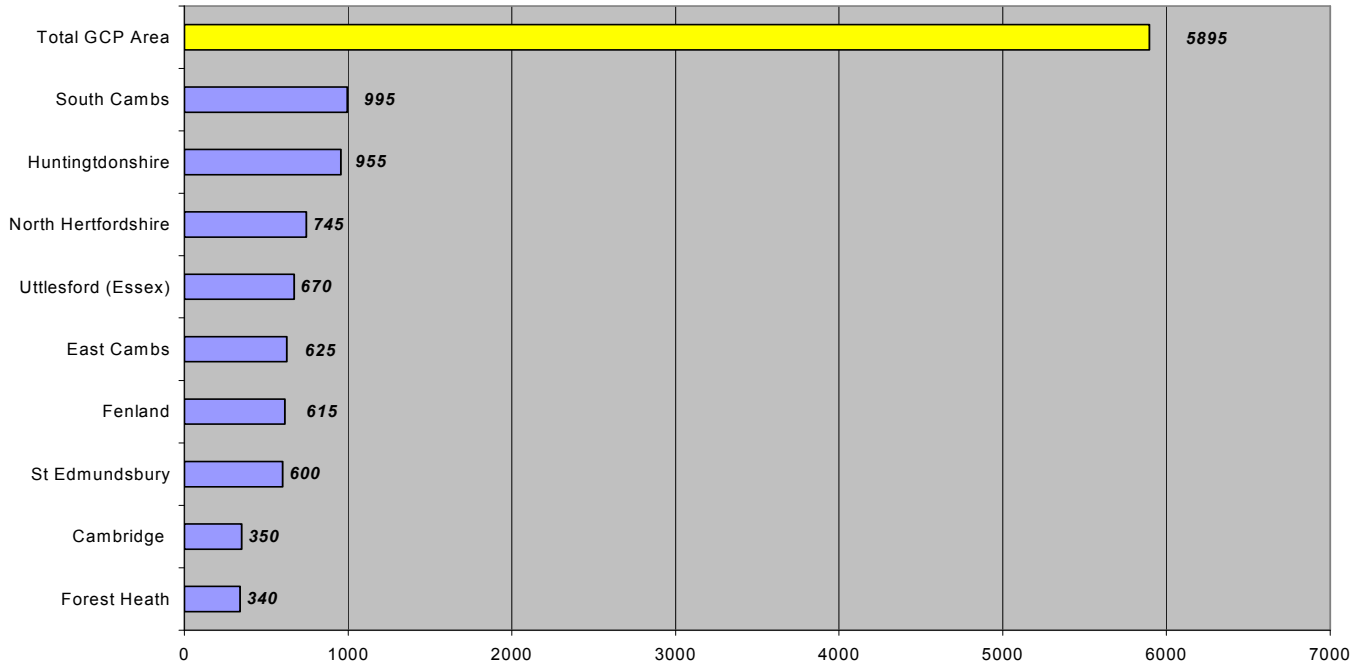


Source: ONS 2009

In the Greater Cambridge area in 2009, Construction enterprises can be broken down as follows:

Graph 3.4

**Number of local construction units in VAT or PAYE based enterprises in 2009**

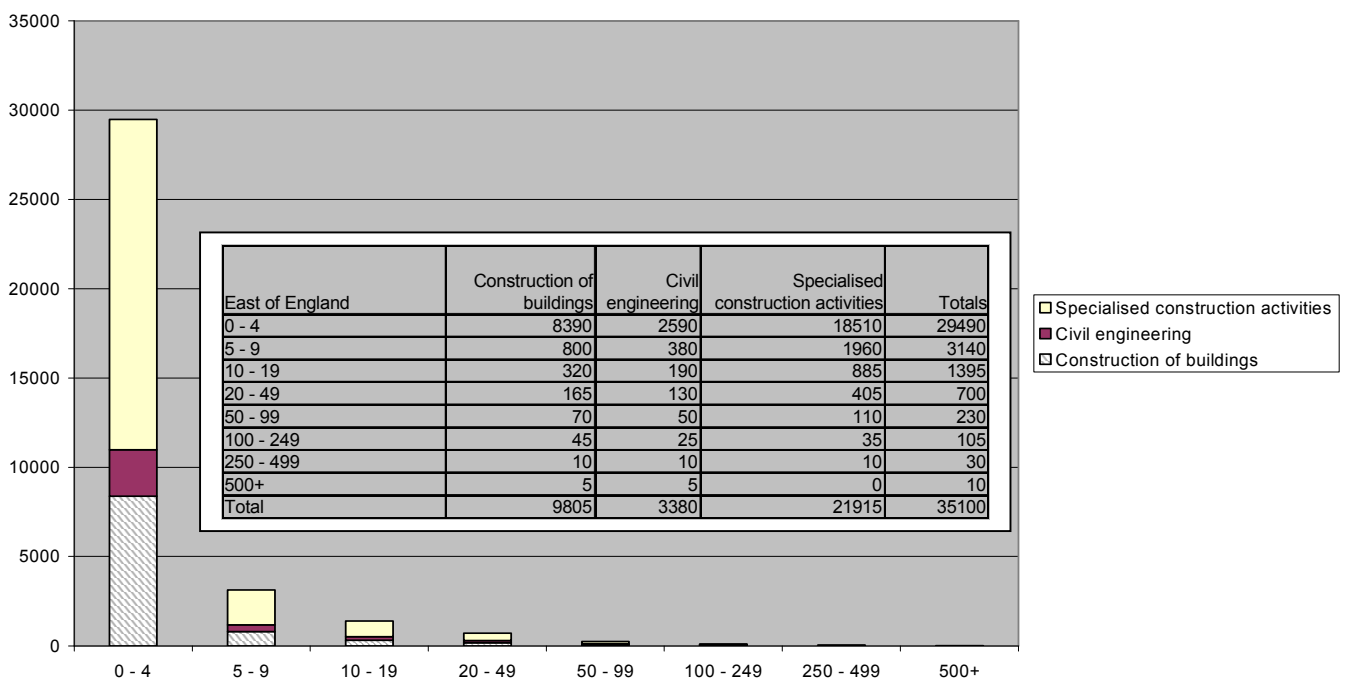


Source: ONS 2009

Most companies in the construction sector are micro- businesses. Graph 3.5 below shows the breakdown of businesses in the East of England by employee size.

Graph 3.5

**East of England Construction Businesses by employee size 2009**



Source: ONS 2009

## Industry Skills History

The construction sector has a long history of skills regulation – much of it connected with the growth of health and safety in construction over the last century. The Construction Industry Training Board (CITB) operates a grant and levy system which goes back to the industry training board formula of the 1960s. The construction industry and the engineering industry are the only surviving Training Boards – both continue to raise a levy from employers in the sector (excluding very small companies) in order to provide a training grant across the industry. In this way, small construction companies get support to train employees who may later leave to join larger employers – the levy thereby supports the industry and over time all employers gain from the system. (The Levy rates and threshold are submitted to Parliament for formal approval each year). The grant and levy system allows direct financial support for the development of a training plan and subsequent subsidies for training undertaken.

Skills cards are an important part of the sector’s approach to safety and competence. Different schemes exist for plant operators, scaffolders, demolition operatives and heating and venting operatives, as well as separate schemes for electricians and plumbers. However, all card schemes require similar things - a NVQ or SVQ and a Health and Safety Test. The Construction Skills Certification Scheme (CSCS) card is the industry's largest scheme covering 220 occupations including trades, technical, supervisory and management.

There are several important professional bodies associated with construction. Some These include:

The Chartered Institute of Building (CIOB)  
The Royal Institution of Chartered Surveyors (RICS)  
Royal Institute of British Architects (RIBA)  
British Institute of Facilities Management  
British Institute of Architectural Technologists  
Association of Building Engineers

A fuller list can be found at Appendix 1.

The Chartered Institute of Building is cited by a recent Anglia Ruskin University report (Higher Skills @ Work - Suparna Ghose 2009), as one of the most important outcomes for staff development identified by construction companies in the region. CIOB members are drawn from a wide range of professional disciplines working within building and construction supply chains. Unlike other professional bodies for the industry, CIOB cuts across the sector’s different disciplines and offers membership based on “an inclusive approach to recognising and qualifying members from different backgrounds offer[ing] significant career development opportunities for anyone working in the built environment”. ([www.ciob.org.uk/membership](http://www.ciob.org.uk/membership)).

## Qualifications

As with most other sectors, there is a plethora of qualifications available for construction related skills. These include over 450 nationally accredited qualifications. Over 200 of these are awarded by Construction Skills. 17 other awarding bodies offer qualifications from Level 1 to Level 5 as shown below:

Awarding Body	Level 1	Level 2	Level 3	Level 4	Level 5	Grand Total
ABC Awards	4	10	6			20
AQA - City & Guilds	2	2	3			7
Awarding Body for the Built Environment			11	8		19
Chartered Institute of Building			1	2		3
ConstructionSkills	23	135	43	2	1	204
Council for the Curriculum, Examinations and Assessment		1				1
Edexcel Limited	12	28	20	4	9	73
Glass Qualifications Authority		3	2			5
Lantra Awards	1	7	5	1		14
Mineral Products Qualification Council		3	1	1		5
National Federation of Property Professionals			1			1
Open University Awarding Body			1			1
Oxford, Cambridge & RSA Exams	1	2	2			5
Royal Society for Public Health			2	1	2	5
Scottish Qualifications Authority		6				6
The City and Guilds of London Institute	9	29	34	5	1	78
Waste Management Industry Training & Advisory Board			1			1
WJEC-EDEXCEL-CBAC	1	1	1			3
<b>Grand Total</b>	<b>53</b>	<b>227</b>	<b>134</b>	<b>24</b>	<b>13</b>	<b>451</b>

How many of these courses are ‘common currency’ among the workforce? In the next section we will explore skills gaps in the sector and look at what types of skills and qualifications are sought by the industry’s employers.

## 4. Skills Gaps

Employers cite “lack of experience” as the key reason for short term skills gaps. Most of these gaps will reduce over time – as new entrants pick up experience and new skills in the workplace – but employers cite several other reasons for skills lacking in the workforce. These include:

- High staff turnover
- Recruitment problems
- Inability of the workforce to keep up with change
- Failure to train and develop staff
- Staff lack motivation

(National Employer Skills Survey 2007 – p.71)

Skills gaps are most prevalent in “lower level” occupations, however the kind of skills lacking suggests a problem running through UK workforces, as indicated below:

Table 4.1

Technical and practical skills
Customer-handling skills
Oral communication
Team working
Problem-solving skills
Written communication
Management skills
General IT user skills
Literacy skills
Office admin skills
Numeracy skills
IT professional skills
Foreign languages

Cited in NESS 2007 p.74

The construction sector faces skills gaps in all of these areas but “technical and practical skills” and “problem solving skills” are the two areas with the greatest gaps. (NESS 2007 p.95) .

What does this mean for those working in the construction sector and what barriers to growth does this present?

IFF Research found that there was a high likelihood of electricians; welders; plumbers; and joiners having construction relevant qualifications (other than skills cards); whilst labourers/general operatives; fitters; groundworkers; glaziers; and roofers were unlikely to have related qualifications. (Skills and Training in the Construction Sector – IFF Research for Construction Skills 2008)

This reinforces the view that there is a tradition in many trades related to the construction sector that allows people to learn the skill ‘on the job’, rather than gain an externally certified qualification. However as we shall see later, on-site experience, although valuable, does not fill all the skills gaps which arise as people move into management positions. Practical knowledge of construction related operations is necessary but not sufficient to get on in management: knowing how to write a clear specification, respond to a tender, make a sales presentation, or handle a client, are important skills which are hard to gain simply from ‘on site’ experience.

As Ewart Keep has remarked, skills gaps can be a good thing because it shows that companies are innovating or responding to new technology, external competition, or new markets:

“An economy with few skill gaps may be an economy with a lot of path dependent firms who are not responding to competitive pressures very well.”

(Keep 2007 Skill shortages in the UK - issues, problems and ways forward).

Moreover, even as a negative, skills gaps are usually only temporary, the result of new employees taking the time to ‘bed in’ to the job or a consequence of departing staff leaving a gap in the skills profile of the firm, which then needs to be made up either from the existing workforce or new employees.

Even temporary skills gaps of course, can cause serious problems in the business and longer term gaps can stunt growth indefinitely. Often the problem for the firm is actually identifying skills gaps in the first place. Many of us think we have adequate skills to do our job but diagnostic tools such as the one used by the National Construction College often reveal a range of gaps which affect individual performance and the company as a whole. Skills gaps in managers can be more serious; Table 4.2 below shows 23% of Managers in the under 5 size bracket lack sufficient qualifications to do the job. However, under current government policy, management & leadership funding only applies to businesses with more than 5 employees.

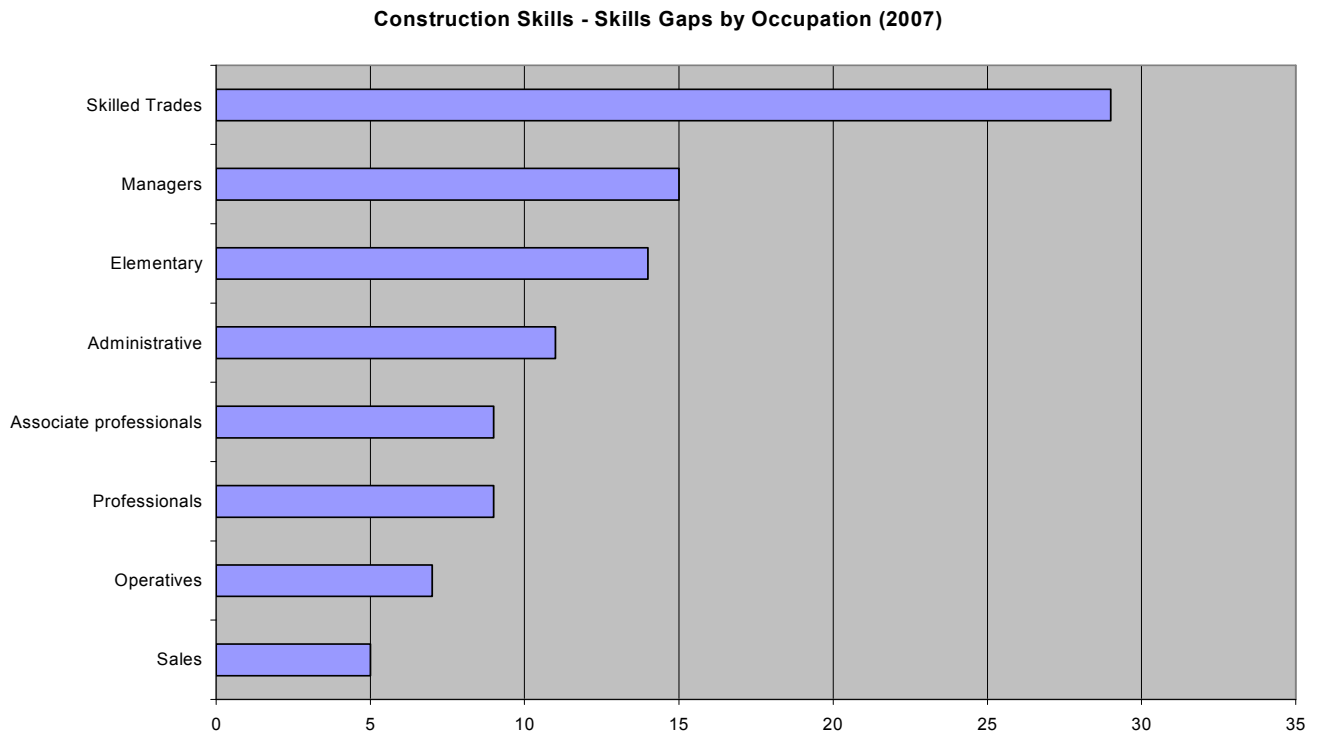
**Table 4.2**  
**Distribution of skills gaps by occupation within size**

Row percentages	Number of skills gaps (000s)		Managers	Professionals	Associate professionals	Administrative	Skilled trades	Personal services	Sales	Operatives	Elementary
<b>Size:</b>											
Fewer than 5	77	%	23	3	4	19	13	4	18	2	13
5 to 24	284	%	11	5	5	11	10	7	25	4	22
25 to 99	314	%	10	7	6	10	8	10	21	7	21
100 to 199	159	%	10	10	6	12	8	7	18	11	17
200 to 499	237	%	10	11	6	12	6	5	18	10	22
500+	290	%	13	18	12	20	5	8	12	5	7

(Source: LSC Employer Skills Survey 2007 (Table 4.3 Page 70))

Graph 4.1 shows the distribution of skills gaps across occupations in the Construction sector based on LSC research.

Graph 4.1



(source: LSC Employer Skills Survey 2007 – from Table 4.10 Page 92)

CSkills breaks down skills gaps into the following: (Most skills gaps at the top, least at the bottom):

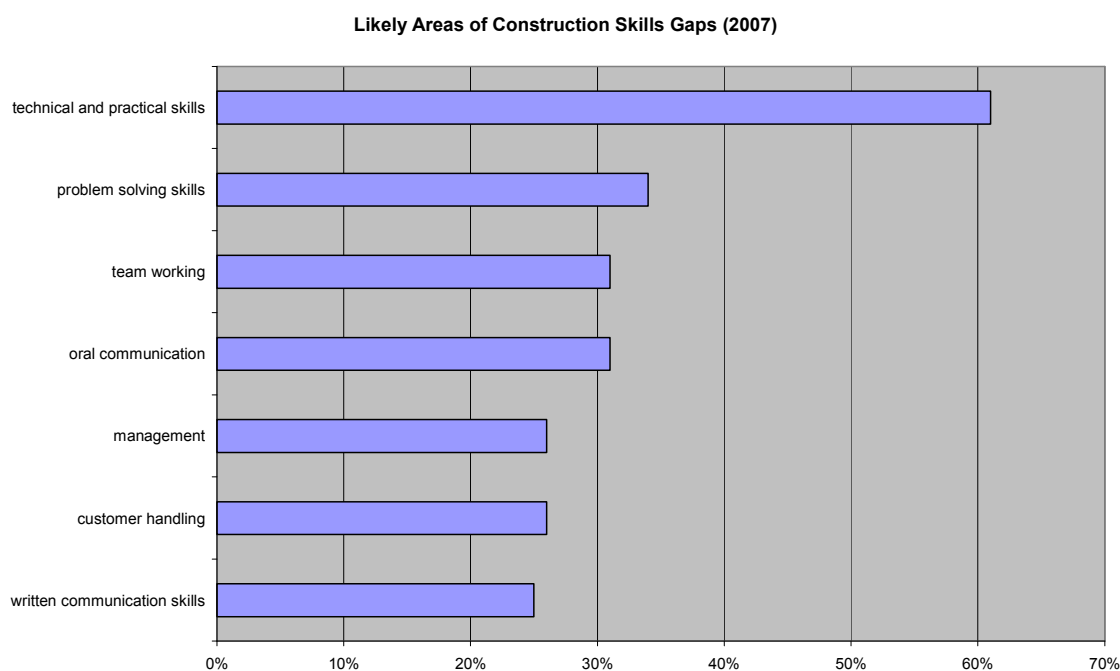
Table 4.3

<b>Labourers</b>
<b>Carpenters</b>
<b>Managers</b>
<b>Scaffolders</b>
<b>Technical</b>
<b>Admin</b>
<b>Painters</b>
<b>Plant Ops.</b>
<b>Bricklayers</b>
<b>Plasterers</b>
<b>Electricians</b>

(source: CS Skills annual Skills and Training in the Construction Sector research report 2008 – page 27)

Research carried out by Warwick University in 2005 showed that managers in the sector were often unlikely to have had any formal management training. Many, it would seem have been promoted into supervisory roles without investment in new training to help them develop new skills needed (Warwick University 2005 - Workforce Mobility and Skills in the Construction Sector – page 11).

Chart 4.2



(Graphical representation of statistics in: CSkills 2008 - Skills and Training in the Construction Sector – Page 29)

CSkills found that:

“For labourers and general operatives the emphasis is on attitude and motivation and a lack of relevant experience. For carpenters / joiners these are both issues (though with less emphasis on attitude and motivation), as are specific carpentry / joinery skills. Managers are often seen as lacking management and supervisory skills, and also people management skills, but also somewhat surprisingly the right attitude and motivation. For plant and machine operators the most common ‘skill’ missing is the required qualifications or cards, though poor motivation and attitude are quite often mentioned. Painters and decorators, on the other hand, are usually seen as lacking some job-specific skill or relevant experience”.

(Source: CSkills 2008 - Skills and Training in the Construction Industry – page 30).

The table below summarises the range of skills gaps likely to be found.

Main skills that need improving by selected occupations	
Labourers	Attitude / motivation (34%), relevant experience (31%), construction qualifications / cards (15%), labourer / ground worker skills (7%)
Carpenters / joiners	Relevant work experience (36%), carpentry / joinery and job specific skills (25%), attitude / motivation (19%).
Managers	Managerial / supervisory skills (33%), attitude / motivation (26%), social / people / communication skills (19%), IT skills (13%)
Plant / machine operatives	Construction qualifications / cards (30%), attitude / motivation (23%), relevant experience (11%).
Painters / decorators (22)	Relevant experience (53%), painting / decorating specific skills (38%)

Table 4.4

(Source: CSkills 2008 - Skills and Training in the Construction Industry).

So skills gaps are prevalent in the sector, occur at every level of the workforce and tend to be mostly caused by lack of experience especially as a result of being in a job for a short time.

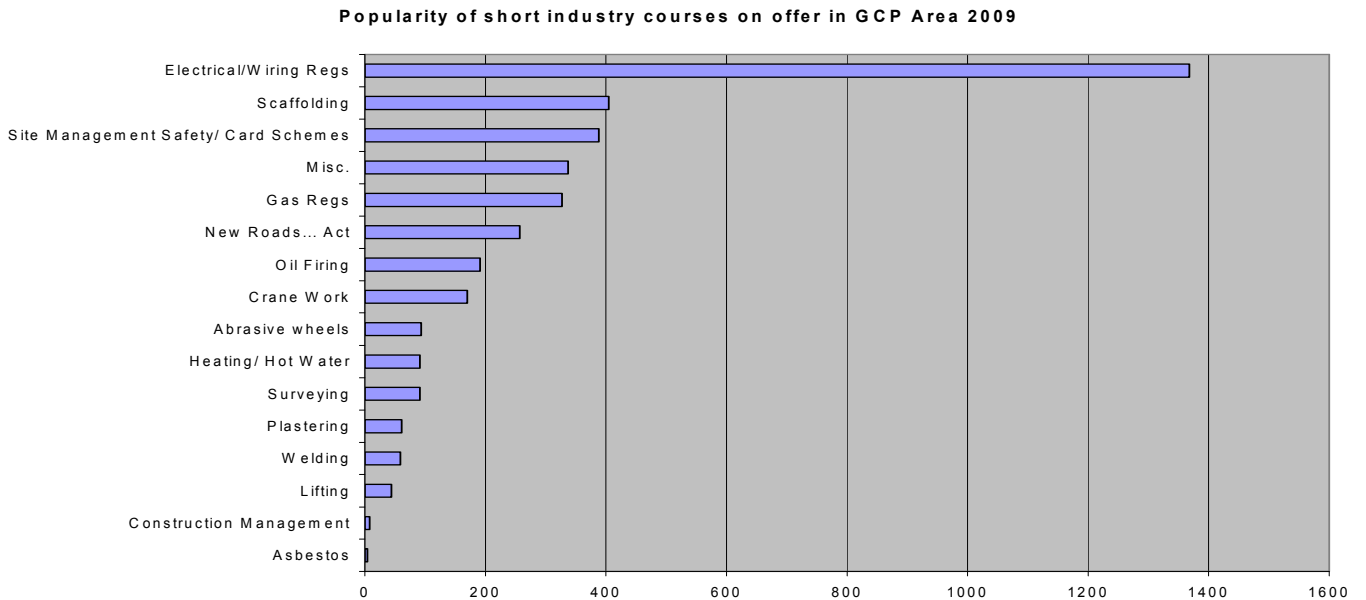
**GCP Area**

How do these findings bare out in the Greater Cambridge area? First of all statistics from Business Link suggests that most training referrals are for micro businesses – and this supports the prevalence of micro businesses in the sector in East of England (see Graph 5 above).

As we shall see in the next section, colleges across Greater Cambridge provide a wide range of construction related courses, and there are many higher level courses available through the two universities. But most of these courses relate to 14-19 and graduate training rather than courses for people in industry.

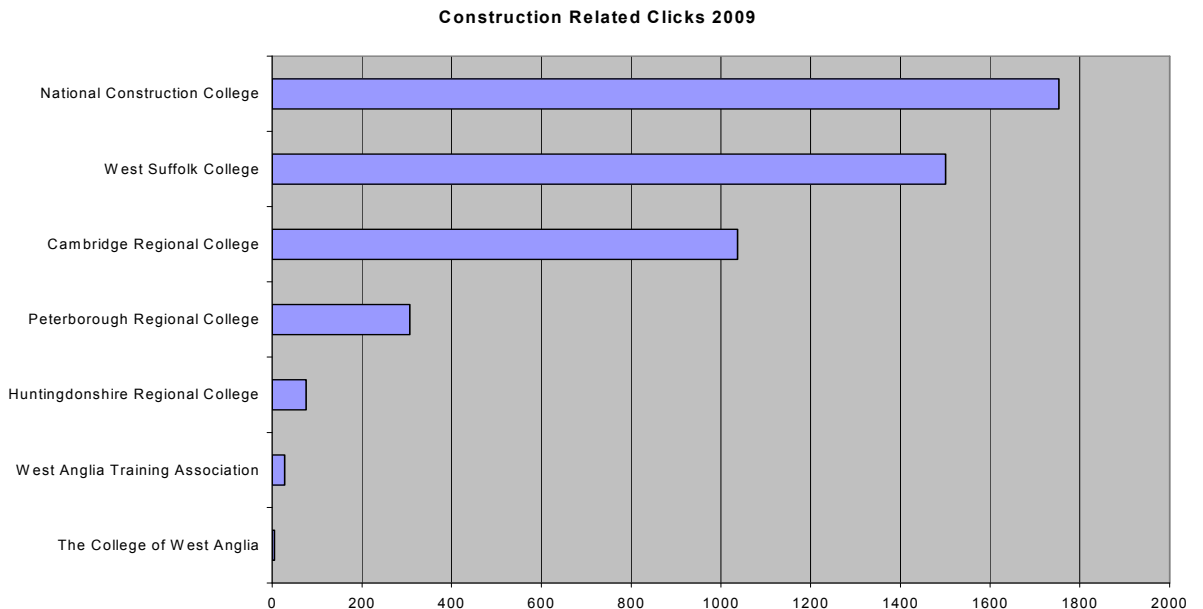
There is however, plenty of evidence to show supply and demand working at the local level for the construction sector. Below, Graph 4.3 explores the popularity of different industry courses and Graph 4.4 shows the providers delivering these courses in the GCP Area.

Graph 4.3



Source: Trainagain 2009

Graph 4.4



How does this provision for which there is obvious industry demand, square with the skills gaps identified above in Tables 4.1 to 4.4? What would it take to “clear the backlog” of skills gaps so that for a moment in time none existed? The answer provides the reason for the persistence of some skills gaps: First of all companies would need to commit to paying for their skills gaps to be remedied, and this would need to include the cost of removing an employee from work duties during the time it takes to train. The individual employees would need to recognise their skill deficiencies and want to take part in training; training providers would need to understand the sectoral pressures and the nuances of the industry and be able to adapt their programme to employers (and employees) needs. And of course, all of this would need to happen at the right time, at the right price and in the right location. Despite this ‘tall order’, there are possible ways forward as we shall see in Section 5. First, however we need to look in more detail at the actual provision.

## 5. Provision – in the GCP Area

When it comes to provision, there is plenty of reason to feel reassured that skills gaps can be met. Colleges in the area have fantastic resources, deliver a range of industry specific courses and have learnt over the last decade how to market their provision more effectively. The National Construction College has a vast campus dedicated to construction skills and it offers a range of industry specific short courses. Anglia Ruskin University is an accredited learning centre for the Chartered Institution of Building (CIOB), and works closely with the local FE sector to provide progression “accords” for students. The University of Cambridge offers a range of degrees which are validated by RIBA (Royal Institute of British Architects).

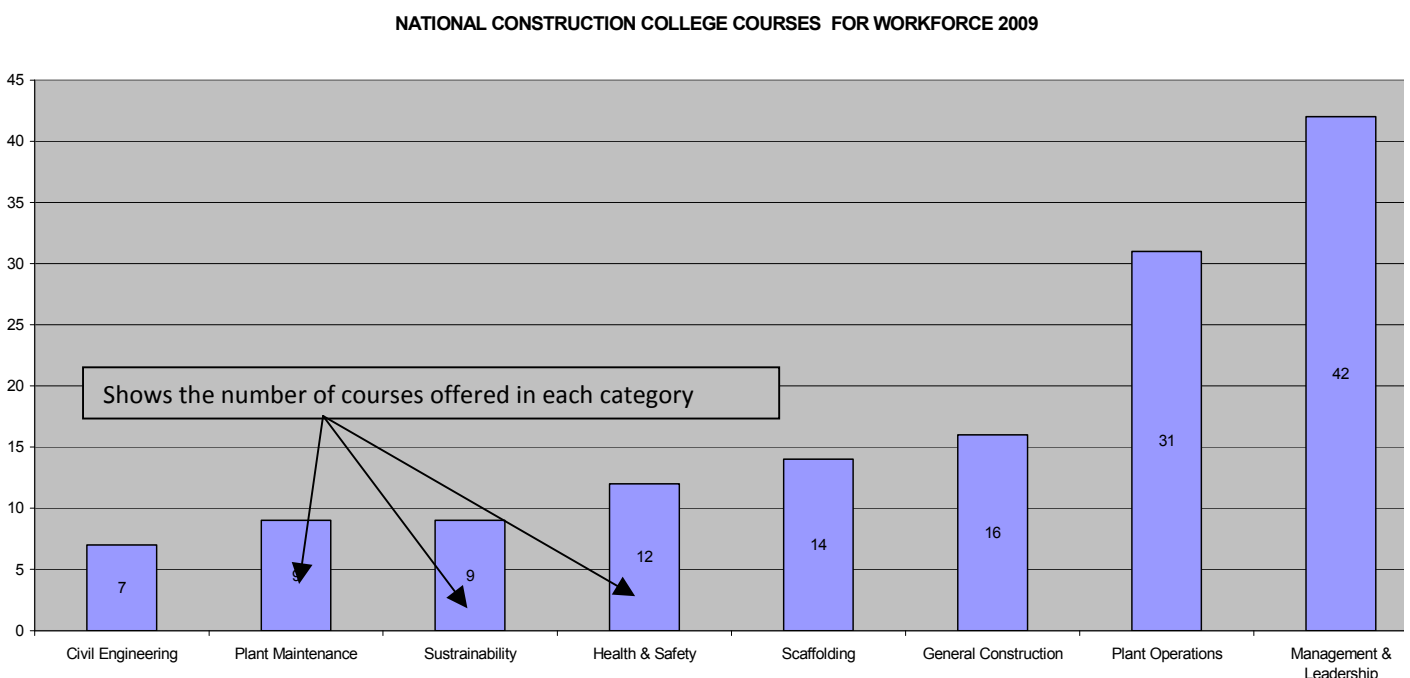
Against this positive picture there are however some weaker areas to note: Many institutions are still too reliant on traditional course terms: it is interesting to note that colleges still plan apprenticeships around the academic year, as opposed to delivering an apprenticeship programme based on recruitment patterns in the sector. Colleges tend to have a skeleton staff outside of term times.

Moreover government funded programmes such as Train to Gain, though a welcome income stream, have brought with them a skewed customer focus: it is not employer targets which colleges try to meet, but government targets. So although many colleges have large client databases (e.g. Cambridge Regional College has a contact database of 1200 employers), it is not clear whether businesses in general, would choose their local college for full cost bespoke training. Given the likely reduction in government funding for skills in the future, this is more than an academic issue: full-cost courses, not subsidised by government, are set to become the norm. Training providers need to develop a new competitiveness based around satisfying employer’s upskilling choices.

### The National Construction College

The college's campus in Bircham Newton, near Kings Lynn, is one of five sites in the country. It offers tailored training specific to the needs of the Construction industry.

Chart 4.1 shows the range of industry specific courses offered at the National Construction College.



Source: National Construction College Training Prospectus 2009

The NCC has created 42 management & leadership courses specifically for the sector – developed in partnership with industry stakeholders. All of the courses are short and to the point, responding to the needs of the industry for training at site level. Nine courses are offered in the area of construction sustainability.

NCC has also developed a Management and Leadership Diagnostic Tool, which helps identify and prioritise construction managers' training requirements. As noted in Section 4, staff are not always aware of their own training needs and this is particularly evident at management level, where years of on-site experience, on its own may not be sufficient in terms of effective management skills.

### **Cambridge Regional College**

Cambridge Regional College offers students very modern facilities on a large single site close to Cambridge Science Park. The College was recently recognised with a Beacon Award for its pioneering construction curriculum which gives students access to career opportunities in the construction developments emerging in the Cambridgeshire growth area. A wide range of staff specialisms enables students to undertake a range of construction specific options.

The SmartLIFE Training centre at the Science Park campus offers excellent facilities in a professional environment. This Centre for Sustainable Development is recognised as the region's focal point for the design and delivery of skills training and knowledge in gas, electrical and renewable energy technologies, modern methods of construction and sustainable development. As an NIC-EIC approved training provider, the Energy Systems Centre has gained a regional reputation for providing high quality training.

Not surprisingly the college tends to focus its resources on its core market – the 16 – 19 age group, and full time and part time courses. Matching up construction company needs is more difficult to achieve – and sufficient short course industry provision is still some way off. However, CRC has an impressive track record on employer engagement, mostly related to Train to Gain and apprenticeship work.

### **Huntingdonshire Regional College**

Huntingdonshire Regional College is based in Huntingdon and St Neots but also provides learning opportunities in the workplace and in many other locations throughout the area. The college is engaged in several employer engagement initiatives. These include:

OR4B (Opportunities for Regional Business) was set up in the summer of 2009 and has been well attended by employers in the area (50 plus businesses attended the last few events).

The college also has an HE programmes Business Development Manager who is active in employer engagement.

HRC has close working relations with several sector specific private training providers who understand their market and have a good knowledge of employers skills needs.

### **West Anglia College**

Spread across four campuses in King's Lynn, Isle, Wisbech and Cambridge (Milton), the college offers a wide range of further education courses and a range of HE provision through a partnership with Anglia Ruskin University. Work based learning is a key feature of the college offer, and Train to Gain funding has enabled the college to engage with new employers throughout the sub-region.

### **West Suffolk College**

West Suffolk College is a rural further education college. Its main campus is at Bury St Edmunds but it has many other local learning centres across Suffolk. Interestingly over 80% of its students are older than 19 and the college has an enviable reputation for working with employers. Short industry based courses are well established and full-cost provision is substantial – working with over 1200 employers in the region.

Construction provision is clearly delineated between students and businesses, and the short course programme is based on industry needs.

The college is a partner in an EU Interreg Project entitled “Build with CaRe” (Carbon Reduction) which aims to “work with a wide range of construction industry organisations across northern Europe in order to make energy-efficient building design the mainstream”. This project demonstrates the approach the college takes in engaging with industry.

### **Peterborough Regional College**

Peterborough Regional College has a Construction Centre of Excellence and was part of a 2005 Cove with Cambridge Regional College. The college has set up Peterborough Business Training Services to focus on employer engagement.

### **West Anglia Training Association (WATA) – (Private)**

WATA Offers a range of courses across sectors. In terms of construction, the college offers the CITB Site Management Safety Training Scheme (SMSTS); Supervisors’ Safety Training Scheme (SSSTS); Construction (Design & Management) and the CDM series (Construction (Design and Management)). WATA also offers a wide range of general health & safety and management courses.

### **Universities:**

#### **Anglia Ruskin University**

Anglia Ruskin University is an “Accredited Centre” of learning for the Chartered Institute of Building (CIOB). This means that it has undergone a rigorous accreditation process leading to a seal of approval so that graduates gaining an ARU construction related degree will be entitled to membership to CIOB.

#### **University of Cambridge**

University of Cambridge Faculty of Architecture and History of Art  
Department of Architecture

The Architects Registration Board (ARB) oversees and maintains the register of UK architects – so architecture degrees will normally lead to ARB registration. Additionally the Royal Institute of British Architects (RIBA) validates many UK degrees so that graduates can gain full membership of the professional body upon successful completion of the degree. University of Cambridge architecture degrees are validated by RIBA.

## 6. Bridging the Gap

How do we bridge the gap between what employers want and what providers are offering? First of all it is worth revisiting what gaps actually exist – we may then be in a position to answer why they exist and what can be done to narrow the gap.

In section 4 it became clear that gaps range from specific technical skills to generic skills such as IT; communications; writing; and customer focus. However, although the skills needed can be called generic, at management level, the delivery model needs to be specific to that industry. As the sector skills council has commented, construction employers want to know that the tutor understands what it means to be in the industry – and to be able to apply management theory and practice to specific construction conditions.

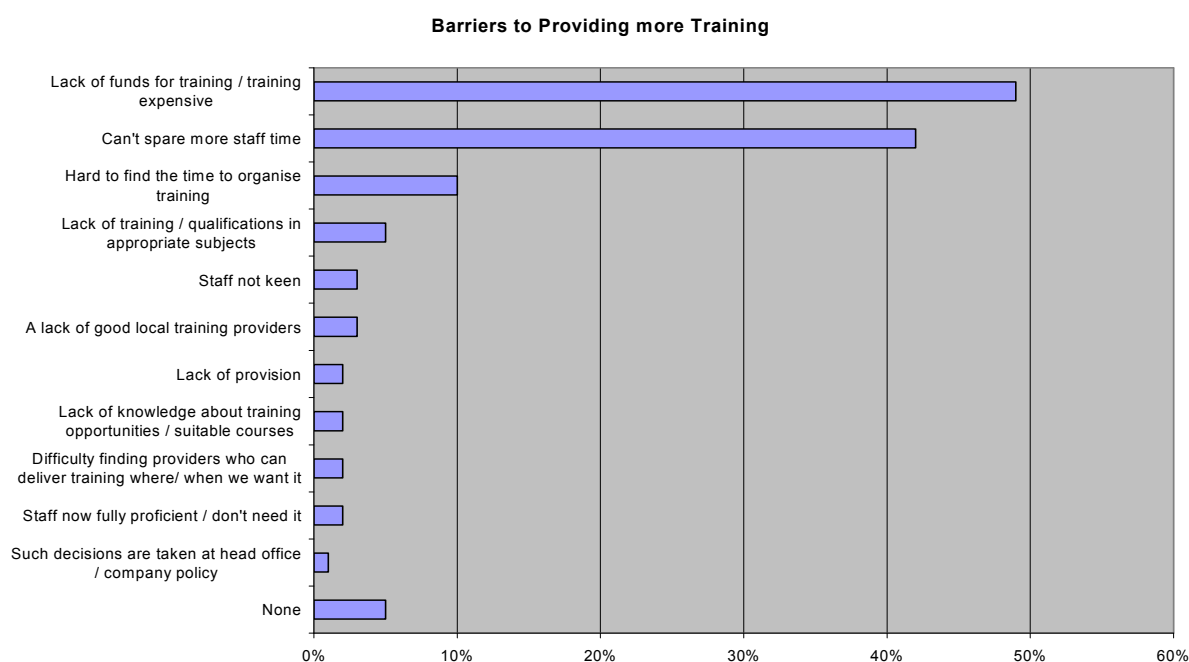
Barriers can be observed at both the supply and the demand end of the upskilling equation. On the supply side, colleges and universities don't always offer the kind of flexibility that employers are looking for – especially in terms of time (e.g. outside term time) and content (e.g. sector specific or as requested by the employer). But on the demand side, employers too create barriers to fulfilment of their needs. As Ewart Keep comments:

“...firms tend to be much more at ease with the task of drawing up a shopping list of demands for additional [training] activity to be funded from the public purse than they are with developing collective mechanisms for self-help or in volunteering to fund specific items from the shopping list for themselves”

(cited in E. Keep 2008 - From Competence and Competition to the Leitch Review)

Funding is clearly always going to be an issue if there is a chance that government will offer to pay for aspects of training which industry is reluctant to fund themselves. Other barriers also exist even when funding is available. A recent LSC report found that there were several other key reasons why companies won't necessarily engage in training even when its free, as shown in the graph below:

Chart 6



Source: LSC 2007 Employer Survey.

Whilst some of these reasons can be placed on the supply side (e.g. lack of appropriate subjects and lack of provision), most are clearly down to the company and its workforce.

So construction companies in the Greater Cambridge area have a range of training needs which are not necessarily being met by training providers in the region. Yet, from Section 5, it is clear that the training resources at hand are formidable – excellent facilities, well trained staff, and a variety of locations. But Section 5 also revealed that much of the focus of public sector training institutions is on the 16 – 19 age group and government funding for Train to Gain and Apprenticeships. The National Construction College, however clearly does deliver a programme of construction courses specifically for industry. In an ideal world, these courses would be widely available across the region and the National Construction College would work closely with FE and HE providers to offer a joined up service; so that a construction company could build stronger relationships with local colleges but at the same time be safe in the knowledge that the National Construction College directed and delivered those aspects of training which colleges were less competent to offer (e.g. on-site training and sector specific leadership & management courses).

One suggestion is for the National Construction College to deliver some of its Leadership & Management courses on college/university premises thereby creating a link to the local college for other work (e.g. NVQs; foundation degrees; short courses, apprenticeships etc..). NCC already delivers many management courses off site, in hotels and conference venues across the country. By linking up with local colleges/universities, there is the exciting prospect of a three way dialogue emerging between the National college/SSC; the FE/HE sector and employers. This has the potential to bring supply and demand closer together, whilst pushing up quality of delivery.

Looking to the future, the Hive – encompassing the new BRE Innovation Park; SmartLIFE Low Carbon; and the Good Business Centre – offers exciting prospects for low carbon construction development and the possibility of a training supply chain that reaches out to smaller sub-contractors. It would appear that neither Cambridge Regional College or BRE (through BREEAM – the BRE Environmental Assessment Method) – currently offer courses to small businesses on how to construct buildings that receive high BREEAM ratings. BREEAM is rightly concerned with training assessors for eco-building, and Cambridge Regional College is centrally involved in training a new generation of environmentally aware builders who will undoubtedly contribute to a low carbon environment in the East of England. But neither of these worthy training activities address the issue of upskilling small construction sub-contractors. Whilst the Chartered Institute of Building Services Engineers (CIBSE) offer a range of courses through their Mid Career College, few events are currently held in this region.

**Possible new actions to help the supply & demand for industry training:**

1. Set up a construction employers forum (possibly online) to regularly meet with FE, HE and the National Construction College to express training needs, preferred delivery methods and best provider partnership arrangements. Look at the possibility of linking in this work with the Construction Skills Network East Observatory meetings.
2. Establish an online brokerage system for short courses and employer requests so that a market place for construction skills in the GCP area is clearly accessible.
3. Invite Construction Skills to carry out free diagnostic tests with construction managers with a view to delivering construction specific leadership and management short courses.
4. Continue to explore opportunities for engaging small and micro construction businesses through existing networks and trade associations.
5. Specifically look into construction sustainability courses for the sub-contractor market and the small business sector in general.

## Appendix 1 – List of Associations and Institutes for the Built Environment

ABE	Association of Building Engineers
ACA	Association of Consultant Architects
ACAI	Association of Consultant Approved Inspectors
ACE	Association for Consultancy and Engineering
APM	Association for Project Management
APS	Association for Project Safety
BIFM	British Institute of Facilities Management
BIID	British Institute of Interior Design
BRE	BRE
BSRIA	Building Services Research and Information Association
CEBE	Centre for Education in the Built Environment
CIAT	Chartered Institute of Architectural Technologists
CIBSE	Chartered Institution of Building Services Engineers
CIOB	Chartered Institute of Building
CIC	Construction Industry Council
CIHT	Chartered Institution of Highways & Transportation
CIPHE	Chartered Institute of Plumbing and Heating Engineering
CIRIA	Construction Industry Research and Information Association
CQSA	Consultant Quantity Surveyors Association
GF	Ground Forum
ICE	Institution of Civil Engineers
ICES	Institution of Civil Engineering Surveyors
ICWCI	Institute of Clerks of Works and Construction Inspectorate
IHE	Institute of Highway Engineers
IMBM	The Institute of Maintenance and Building Management Institution of Structural Engineers
LABC	Local Authority Building Control
LI	Landscape Institute
NHBC	National House-Building Council
NHF	National Housing Federation
RIBA	Royal Institute of British Architects
RICS	Royal Institution of Chartered Surveyors
RTPI	Royal Town Planning Institute

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