

# Summit<sup>SKILLS</sup>

**The Sector Skills Council  
for Building Services Engineering**

## **Sector Skills Assessment Report for the Building Services Engineering Sector**

**United Kingdom  
Summary**

## Summary

The economy of the United Kingdom has been in a considerable recession since the last quarter of 2008, with economic growth falling in successive quarters to the beginning of 2010. Current Government-proposed spending cuts, particularly in relation to reductions in capital building spend are perceived by SummitSkills to potentially affect the performance of the sector adversely over the next four years to 2014 and beyond, as capital projects in the public sector are cut (see qualitative data in the main report for a BSE employer perspective on impact).

The impact on employment in the sector stimulated by this phenomenon has been significant, with considerable job losses across all the trade areas as evidenced by a) a considerable increased percentage of individuals receiving benefits who claim to have last worked in the SummitSkills sector and b) the Experian LMI numbers for 2011 to 2014 continuing to show a downward trend.

The depth of the recession has been such that many of the national secondary data sources in the United Kingdom have not yet caught up with this phenomenon. Many are still reporting data from 2008, and in the case of the devolved nations from as long ago as 2005. While this data is still of interest, and indeed is a requirement of the UKCES Common LMI framework to be included in the main report, SummitSkills prefers to concentrate on the most up-to-date data from 2009 and 2010 to inform this summary and the conclusions emanating from it, although the reader may see the secondary database data in the body of the main report.

# The Economic Effects and Responses of the Building Services Engineering Sector to the Recession and the Competitive Market

## Impact of the Recession

The impact of the recession has been considerable. However, Experian (2010) estimates that the Building Services Engineering (BSE) sector will attain an average annual growth of 1.4% between 2010 and 2014. Growth will return to the industry in 2011 and will break through the 2% mark in 2012. While this performance is better than some other sectors, it should be remembered that the value of the sector in 2007, installation of electrical wiring and fittings, was £13.1bn, at 2000 prices, which was 9.7% of total turnover in the construction sector. Since 1997, turnover in SIC 45.31 related to SummitSkills as a proportion of turnover in the construction sector as a whole has remained between 8% and 10%. Of the companies surveyed by SummitSkills in 2009/2010, 61% reported being affected by the recession and 34% were struggling to find work.

Significant growth for the sector is predicated in environmental technologies (Experian 2010) which will have a significant impact on the training needs for the sector (Hammond, 2010a; Hammond, 2010b).

From primary data analysis carried out by SummitSkills, and triangulated by the ethnographic data and claimant data from Job-seekers Allowance, a considerable percentage (21% of the SummitSkills sample) had made operatives redundant between 2009 and 2010 due to the impact of the recession.

## *Conclusion*

To respond to the perceived training needs of the sector, SummitSkills is developing a National Skills Academy for Environmental Technologies in England to meet the potential demand for training that has been identified by research, both by SummitSkills and Experian.

SummitSkills will continue to support workers in getting back into employment in the sector through further training and other initiatives, such as apprentice sharing etc.

## Competitive Advantage

Despite the recession, significant numbers of companies surveyed by SummitSkills do not have a clear strategy for defining their competitive advantage, although the ethnographic data suggests that there are a number of companies who are developing a sense of niche marketing and are constantly seeking new markets to enter. However much work needs to be done to address the issue of helping BSE companies be more focussed on defining their competitive advantage.

### *Conclusion*

SummitSkills will continue to work with partners and stakeholders, such as trade associations, to develop and promote appropriate training courses for management competencies around the concepts of competitive advantage.

## Globalised Competition

Only 20% of companies surveyed by SummitSkills are aware of international competition, and this is predominantly among the larger companies, with foreign companies bidding for work. It is worrying to note that ethnographic data for the sector suggests that a number of contracts with a high content of environmental technologies have been won by foreign competition particularly in the London region.

### *Conclusion*

SummitSkills will continue to monitor this situation, and where skills deficits may be a reason for UK companies not winning contracts, particularly in areas such as environmental technologies, will continue to promote training to address this.

## Government Regulation

Health and Safety legislation continues to concern the sector, with employers offering training to operatives as much from fear of prosecution as from a desire to skill their workforce.

### *Conclusion*

SummitSkills will continue to monitor the situation, and advise the sector on suitable training courses to help facilitate a more rational understanding of Health and Safety requirements than may currently exist in the sector.

## Investment and Finance by/of the Sector

Investment by the sector in capital equipment fell 30% between 2008 and 2009, as might be expected during a recession, and where capital equipment was purchased, 82% of those companies used their own capital rather than seeking to borrow money.

The behaviour of the banks in relation to their lending policies has come under scrutiny during this recession in a way not seen before. Banks have been accused in the media of not supporting British business with responsible lending to maintain liquidity of these companies. The primary research suggests that 12% of BSE companies have found banks unwilling to lend them money to fulfil contracts that they had on their books. Worryingly, the problem appeared to be more severe generally in the East of England, London and the South East, than other regions and nations, and it is these regions which have the highest GDP in the UK!

### *Conclusions*

SummitSkills will continue to provide timely advice to partners and stakeholder through economically relevant research to help formulate sector policy on the matter and to advise the Government.

## BSE Labour Demand

According to the Experian labour demand model, the need for skilled labour across the SummitSkills footprint between 2011 and 2015 will begin to increase once again, with regional and devolved nation variables.

### *Conclusion*

SummitSkills will continue to advise Government funding agencies and the sector on perceived labour requirements through apprenticeship training both for young and adult apprentices, and will continue to make sure that this training meets the developing needs of the sector.

## International Benchmarking

International benchmarking statistics take no account of the BSE sector as being distinct from the construction sector as a whole, and therefore the data is of interest while not being sector specific.

The data suggests that the construction sector in the UK is the third biggest in Europe after France and Spain.

Vacancy rates for the construction and BSE sector in Europe suggests that the BSE sector is coming out of recession in the majority of EU economies, and that demand for skilled workers is beginning to grow again from an across-Europe fall during 2009 as recession gripped the EU zone. Although the UK construction industry has suffered during this recession, the effect has not been as bad among the more established EU countries as, for example, countries such as Spain and Denmark, compared to the newer members of the EU such as Latvia, Lithuania and Estonia, which appear to have suffered significantly as a result of the recession.

## Migrant Labour

### Engagement of Migrant Labour

Engagement of migrant labour in the BSE sector surveyed by SummitSkills has fallen by 3% totally between 2008 and 2009/10, which is a fairly small percentage given the recession.

Indeed among some of the larger companies and in Scotland the use of migrant labour has increased dramatically over the same time frame. Comparison should be made between the 'plight' of migrant labour and indigenous labour being made redundant, and the percentage of companies who have recruited apprentices in the years 2009 and 2010.

The data suggests that migrant labour has been used by the sector, to support work in times of uncertainty rather than by directly employed indigenous labour and the recruitment of apprentices.

Particularly in the devolved nations and the South East of England, the percentage of companies who recruit migrant workers through labour agencies has risen, and in some cases this rise is quite dramatic. As secondary literature by Anderson et al., (2006) suggests, some labour agencies operate at the edges of 'good practice' and do not support migrant labour in seeking training opportunities etc.

### *Conclusions*

SummitSkills will continue to monitor through research the labour mix in the BSE sector between migrant labour, indigenous labour and apprentices, and inform the Government, partners and stakeholders of the labour mix in the sector through primary research.

## Issues with Migrant Workers

Previous research by SummitSkills has identified English language and Health and Safety issues with migrant labour, and the primary data in the main report suggests that this problem remains and indeed has increased between 2008 and 2009. The sector seems to be more ambiguous over the better work ethic and skill levels of migrant workers than they were in 2008, although the ethnographic research seems to have identified a more positive view than is generally coming out through the primary quantitative data.

### *Conclusions*

SummitSkills will continue to work with partners and stakeholders to make sure that opportunities for training are available to support migrant workers appropriate learning English, obtaining parity of their qualifications, and understanding UK Health and Safety regulations etc.

## Current and Future Skill Needs

### Recruitment difficulties

In relation to hard-to-fill vacancies in the SummitSkills footprint in the UK (excluding Scotland), secondary database sources indicate a figure of 2% in England and 2% in Northern Ireland. In England 18% of vacancies, as a proportion of all vacancies, were caused by skills issues. In Northern Ireland 15% of companies surveyed claimed to have skills gaps, and in Wales 1% of vacancies are skills shortage vacancies in the SummitSkills footprint. Care however should be taken in interpreting these statistics, as they relate to historical data collected before the full effects of the recession, i.e. England and Northern Ireland 2008, Wales 2005 (and therefore considerably out of date). They should therefore be taken as indicative only.

The data however confirms what SummitSkills has discovered through the primary quantitative and qualitative data undertaken for the main report, which is that the primary skills issues for the sector are most acute in the craft operative areas, where in Northern Ireland it is estimated that 717 jobs in 2008 were affected by skills gap issues in the craft areas.

### *Conclusion*

SummitSkills will continue to work with providers, partners and stakeholders to ensure that a sufficient and adequately trained workforce is developed to meet the needs of employers particularly for skilled craft operatives.

### Customer Demand

In relation to trends in the BSE sector creating skills issues for companies, the SummitSkills primary data suggests that 25% of companies surveyed believe that there is a problem. Qualitative research by SummitSkills suggests that environmental technologies are primarily the perceived growth areas creating skills issues, and these are covered more fully in two reports published recently by SummitSkills (Hammond, 2010a; Hammond, 2010b).

Customer demand still remains a low driver of change in the BSE sector nationally, with only 13% of employers identifying it as a driver for change. Interestingly this is significantly higher in Scotland and Northern Ireland than the English regions.

### *Conclusion*

Influencing consumer demand is outside the remit of SummitSkills. However we will continue to seek to influence the Government and other organisations capable of influencing consumer demand, and monitor and advise the sector on skills demand emanating from this.

### Modularised Buildings

Previously, *Working Futures 3* has identified the use of modular buildings as delivering productivity improvements for the construction sector (which is deemed to include the majority of the SummitSkills footprint). However, repeated primary research from SummitSkills has indicated that engagement by the sector with modularised buildings has remained low, and fell 1% nationally between 2008 and 2009/10, although 30% of the sector surveyed thought that they were detecting an increase in demand (if not engagement) for it. This may explain why the sector has not achieved the efficiency saving projected in *Working Futures 3*, and why the sector cannot recognise the data as being a true reflection of the performance currently.

### *Conclusion*

SummitSkills will continue to monitor this situation, and advise the sector appropriately of any skills needs arising from this issue.

## Skill Cards

In relation to the engagement in skill card schemes, which encourage the sector to develop and maintain skill levels of operatives, the data shows that 37% of the companies surveyed did not have any staff with skill cards, whereas 22% had 100% of their craft operatives holding skill cards. It might be argued therefore, that skill cards are commonly either engaged in fully by companies or not at all, although there are still 41% of companies having something in between these two points. However, 40% of operatives are never or hardly ever asked for skill cards when going on-site, suggesting that this is still an issue.

### *Conclusion*

SummitSkills supports the concept of skill cards as a means of improving the skill levels of operatives in the BSE sector. We will continue to support the development and extension of skill card schemes.

## Difficultly obtaining skills/skills gaps/issues

NESS identified that 57% of companies surveyed in England had problems obtaining technical, practical and job specific skills, and the same is true of Wales and Northern Ireland. The primary data of the sector collected by SummitSkills suggests that although not articulated, as mentioned above, the main problem is obtaining sufficient skilled and qualified craft operatives. Aside from this the sector is very unfocussed in defining its skill needs, and this has remained the case for a number of years.

The primary data collected by SummitSkills shows that generally skills gaps fell by 22% between 2008 and 2009, although this is probably due in part to the recession, and not to the sudden up-skilling of the sector.

### *Conclusion*

SummitSkills will continue to work with partners, stakeholders, providers and employers to develop a clearer focus on perceived current and future skill needs, and develop a more strategic model for thinking about skill needs generally to help the sector develop strategic skills thinking.

## Qualification Levels

Companies in the sector generally recognise Level 2 as being the requisite qualification for a craft operative working under supervision, and Level 3 being the requisite qualification for a

craft operative working without supervision. There remains however a stubborn minority who are prepared to accept no qualifications for operatives working in the sector, which SummitSkills believes is unhelpful in developing the required skill levels to meet potential demand in the future, particularly at craft level.

#### *Conclusion*

SummitSkills will continue to support and develop the qualifications structure for the sector, and work with partners, stakeholders and providers to encourage the sector to engage in training and upskill their workforce.

### **Certification Schemes and Part P Qualified Operative Requirements**

About 46% of the BSE sector is covered by certification schemes, of which NICEIC is the most dominant with approximately 24% of the total certification membership in the sector.

Demand for specific Part P qualified staff remains lower than expected, with only 34% of electrotechnical companies specifically seeking this qualification. Of the companies sampled who require Part P qualified staff, 71% asked for other qualifications in addition to it; and 55% of companies sampled claimed to ask for original certificates. Concerns therefore expressed in the sector (an example of which can be found in the qualitative research in the main report) is that there is a potential danger of part qualified operatives without NVQs but with part P qualifications entering the sector to the detriment of quality and skills.

#### *Conclusion*

From the evidence collected by SummitSkills there does not appear to be evidence of the problem described above currently actually occurring in the sector. The data collected however does not make an allowance for people carrying out VRQ qualifications and starting up their own businesses. SummitSkills will continue to work with partners and stakeholders to monitor this issue, and advise the Government if a potentially skills-damaging issue arises for the sector.

### **On/Off-the-Job Training**

Data for England, Northern Ireland and Wales shows that the sector invested in both on-the-job and off-the-job training, with Northern Ireland showing a preference for off-the-job training. The primary data collected by SummitSkills nationally triangulates the secondary data from England and Northern Ireland predominantly, suggesting that the sector prefers off-the-job training to on-the-job training. What is particularly encouraging is that despite the

recession, engagement in off-the-job training has risen 12% between 2008 and 2009/10; on-the-job training has increased by 3% over the same time period. Between 2008 and 2009/10, 36% of companies surveyed by SummitSkills reduced their training budget, with 11% of those companies reducing the budget by 100%. This suggests that training budgets in a recession still remain vulnerable to reduction or elimination.

### *Conclusion*

SummitSkills is pleased to note the improvement in training that the sector has undertaken, and will continue to support more training opportunities for the sector to seek to maintain the upward trend identified between 2008 and 2009/10. SummitSkills will continue to work with partners and stakeholders to encourage employers to increase rather than decrease their training budgets, even during a recession, to facilitate the upturn.

## Management Training

SummitSkills has identified management training as a key issue for the sector for a number of years, and it is disappointing to note that there has been a 20% reduction of companies training their managers between 2008 and 2009/10. The percentage of companies who have qualified managers has remained static at 35% of companies sampled. However of those companies who have trained their managers, 20% have spent £2,001-£5,000 per manager, which is encouraging. The plethora of qualifications in management which the sector claims is appropriate remains worryingly large and eclectic in nature, suggesting that the sector needs to approve or develop its own relevant qualifications.

### *Conclusion*

SummitSkills will continue to encourage BSE companies to invest in management training on recognised management qualifications to facilitate productivity. SummitSkills intends to support this through the development of appropriate standards etc.

## Apprentices

The percentage of employers in the SummitSkills footprint employing apprentices has fallen by 13% between 2008 and 2009/10, which represents a significant fall for the sector. In the devolved nations the figures are; Northern Ireland - 13%, Scotland - 35%, Wales - 20%, suggesting that the devolved nations have been harder hit than the English regions.

In 2009/10 77% of the companies surveyed by SummitSkills had no apprentice in their company. In the devolved nations the figures are; Northern Ireland - 43%, Wales - 76% and Scotland - 65%, suggesting that the devolved nations are slightly more likely to employ an apprentice than the English regions.

The percentage of companies who made apprentices redundant in 2009/10 was 6% of the total sample, and of those companies who made apprentices redundant, 28% made all of their apprentices redundant.

### *Conclusion*

The current state of apprenticeship training in the sector is critical. The percentage of employers who take on apprentices is too low historically to meet the skill needs of the sector. In addition the reduction in apprentice recruitment in 2009 exacerbates this, along with the failure to recruit apprentices by companies who traditionally do recruit them. Finally the potential loss of further semi-skilled apprentice labour through redundancy will create a significant skills shortage in five years time, when the economy is predicated to be approaching 2007 levels of growth and business activity for the sector.

The potential skills shortage caused by the sector's response to the recession is one of considerable concern to SummitSkills, and SummitSkills will be working with partners and stakeholders, employers, providers and the Government to mitigate the potential problems that the sector will be facing when the economy upturns.

### **Apprentice Readiness for Work**

The data from the employers surveyed by SummitSkills suggests that the majority (61%) think that apprentices are job-ready. This is a considerable improvement on the work of the Sector Skills Agreement, which suggested considerable dissatisfaction by the sector about attitude and job readiness of their apprentices.

In addition 84% of the companies surveyed felt that the apprentices they had recruited had sufficient maths and English skills to carry out their jobs effectively. As is seen in the qualitative data collected by SummitSkills, this may have something to do with the fact that employers are now asking for higher GCSE grades in the maths and English disciplines than traditionally.

In relation to apprentices improving their English and maths skills during their apprenticeship, 65% of employers claimed to have noticed an improvement in these skills by their apprentices.

#### *Conclusion*

Considerable improvements in maths and English ability and job readiness are very welcome to SummitSkills, which has been working with partners and stakeholders on this issue for a number of years. However further work is still needed, and SummitSkills is determined not to become complacent in supporting providers etc in the efforts to continue to improve standards.

### **Technical Certificates (Vocationally Relevant Qualifications)**

Technical certificate proliferation was identified in SummitSkills' Sector Skills Agreement as an issue, as a considerable number of part qualified individuals were seeking to join the sector. Of the companies surveyed, 46% had been approached by a number of people who had the technical certificate as their primary qualification.

The data suggests that 32% of companies surveyed received between six and 25 applications every year, but only 13% of companies surveyed had ever employed someone with one of these qualifications.

#### *Conclusion*

Technical certificates do not give value for money to the learner, the sector, or the Government which is the primary funder in most cases. SummitSkills continues to work to develop entry qualifications, which it recommends are recruited to in line with the predicted LMI requirements published by SummitSkills, to prevent the proliferation of semi-qualified learners, the majority of whom will not find employment in the sector.