The Civil Engineering Sector of the Scottish Construction Industry;  
briefing for the Education & Culture Committee: Educational Attainment - April 2015

Introduction
The Civil Engineering Contractors Association (CECA) Scotland represents around 100 contractors across Scotland ranging from large multinational companies engaged in flagship infrastructure projects to rural SMEs carrying out civil engineering works in their communities. Our members currently deliver around 80% of Scotland’s annual civil engineering outturn of £2.4bn p.a. and employ over 20,000 PAYE people with many more in the supply chain.

Background to Current Skills Issue
Employment in the construction sector counts for around 6.9% of total Scottish employment, with about 178,400 employed in the sector in 2013, a decline of 16% from the 2008 figure (when it was 212,500 and 8.4%).

- The decline was focused on the central belt - (Glasgow; Edinburgh; South Lanarkshire)
- The largest sub sector decline (27%) was in both civil engineering and manufacture of construction related goods.
- In terms of occupations, the largest declines in employment over the last 5 years were in ‘process, plant and machine operatives’ jobs accounting for around 40% of all job losses.

However;

The civil engineering sector in Scotland has seen a significant amount of activity coming through major public infrastructure projects such as the Glasgow Southern General Hospital development, the Queensferry Crossing, the Edinburgh to Glasgow rail Improvement Programme (EGIP), M73/M74/M8 refurbishment and AWPR.

In the coming years Scotland will see further infrastructure developments such as the dualling of the A9, a new hospital for Dumfries and Galloway, the upgrading of the
Aberdeen to Inverness rail link, a new campus for City of Glasgow College and a new Bio Quarter for the University of Edinburgh.

The Civil Engineering Sector’s Response to their Skills Requirements

The Board of CECA Scotland has identified three skills and development priorities for the sector;

1. Attract new entrants to Civil Engineering
2. Upskill front line supervisors
3. Provide certificated Leadership & Management training for senior staff

Attract New Entrants to Civil Engineering

The CECA Scotland Board has a goal of developing new foundation and higher level technical/professional Modern Apprenticeships to reflect the changing nature of the sector and to stimulate demand to support future ambition.

CECA Scotland and CITB are some way down the line in running two pilots of a Foundation Course in Civil Engineering involving West Lothian College and Carluke High School and Inverness College and two local secondary schools.

Support and funding is being provided to the Institution of Civil Engineers’ (ICE) education programme in Scotland by CECA members. This is to assist their work with P6 & P7 youngsters and S1 & S2 students to achieve a more positive image of the sector.

Upskill Front Line Supervisors

Civil Engineering employers acknowledge the need to develop their own workforce and to offer lifelong learning opportunities for the benefit of both the individual and the company. A recognised area of need is to provide foremen and gangers with additional “soft” skills to complement their technical/craft skills.

The sector is working with CITB Training Groups, FE colleges and independent training providers to develop a range of courses and qualifications around VQ level 3 to meet the particular requirements of the sector.
Provide Certificated Leadership & Management Training for Senior Staff

Over the past 6 years the industry has faced turbulent times, with many SME companies facing liquidation, bankruptcy or ceasing to trade. In many cases this is due to lack of management and leadership within the company or poor management of resource. Over the past 12 months, there has been a significant increase in business opportunities and therefore a leadership and management programme focused on the individual requirements of the business will aid companies to focus on key improvement areas to support their growth and development.

CECA Scotland, along with four other Scottish construction trade bodies, have secured funding from the CITB to provide access to the NVQ level 6 Diploma in Construction Site Management to individuals at a vastly reduced price. This is in addition to the programme of continuous professional development seminars and events that are provided by CECA Scotland to its membership on an ongoing basis.

For further information please contact Grahame Barn, Head of Membership Services of CECA Scotland on 01786 430007 - email grahame@cecascotland.co.uk
Briefing

Education and Culture Committee
Educational Attainment – April 2015

Introduction
CITB is pleased to provide the following summary to the Education and Culture Committee, outlining some of the key work the organisation is undertaking with regard to future workforce needs.

CITB works to ensure that construction employers have the right skills, in the right place and at the right time through investing funds and providing a wide range of industry-led skills and training solutions.

We are also a partner in the Sector Skills Council (SSC) for the UK construction industry, and are raising employer engagement in training, providing labour market insights on future skills needs and developing standards and qualifications for the sector.

Industry Needs 2015 – 2019 (Overview)
We recently published our annual Construction Skills Network (CSN) report, which forecasts industry needs in Scotland over the course of the next five years;

- Our report predicts that Scotland will see annual average output growth of 1.1% over the 2015 to 2019 period. It follows a strong 2014 for Scottish construction, during which output grew by an estimated 7% in real terms, a second consecutive year of expansion.

- Output growth over the next five years is expected to be strongest in the private housing sector at an average annual rate of 5.4%, but this comes on the back of eight consecutive years of decline between 2005 and 2013. There are a number of large regeneration projects in the pipeline with a substantial housing element. The sector is also expected to benefit from the Scottish Futures Trust’s £1.5bn investment in affordable housing over the next decade – a programme that should drive decent growth in the public housing sector.

- CITB is pleased to report that 1,434 new apprentices were brought into construction in 2014 – a four-year high – as well as restarting 171 redundant apprentices. This level of recruitment will help support the annual workforce requirement of 5,700 over the next five years.

- Given the industry needs, CITB will be undertaking campaigns to attract former workers back into construction, as well as selling the industry as a viable career option to young people from all backgrounds.

Youth Employment Strategy
CITB welcomed the findings of the Wood Commission, and subsequently the Youth Employment Strategy published by the Scottish Government in December 2014. Given the challenges to meet future workforce needs for the Scottish Construction Sector, CITB believes that the strategy will play an important role in enhancing the reputation of the sector as an attractive proposition to young people from all backgrounds.

The five key areas CITB is currently considering are as follows;

S4-S6
- CITB is looking to develop detailed clarification on the routes into employment/careers mapping, and look to produce sectorial labour market intelligence. We would look to link this up with school/employer partnerships.
- We would look to develop foundation apprenticeships – e.g. Technician FMA.
- Consider how schools can best deliver vocational qualifications in partnership with colleges – there are a combination of practical (such as appropriate timetabling) and capacity issues which will need to be looked at in detail.
- Work to help set a new standard for work experience with a focus on the NEET group.

**Colleges**
- CITB would look to link in its labour market intelligence with colleges who must conduct Regional Skills Assessments and establish Regional Outcome Agreement to meet supply in their areas.
- CITB can play a critical role in building stronger links between colleges, schools and employers.

**Apprenticeships**
- CITB will look to develop new foundation apprenticeships and early stage pre-apprenticeships
- Look at developing new higher level apprenticeships based around STEM subjects, leading to degree level pathways.
- CITB and its partners will continue to promote Modern Apprenticeships via both Scottish Apprenticeship Week in May 2015 and around main recruitment
- CITB welcomes the new quality assurance regime covering Modern Apprenticeship delivery in colleges overseen by Education Scotland as it will standardise quality and recognise best practice.
- We want to ensure that the construction sector is linked in with SDS’ My World of Work.

**Employers**
- Regional Invest in Youth Groups will be set up across Scotland and be linked to the National Invest in Youth Group. These groups will look to bridge the gap between employers and the education system, and will seek to encourage employers to adopt the new Invest in Young People Standard.
- Additional incentives for SMEs to take on apprentices – CITB can work to promote these to employers.
- CITB has been working on issues around procurement and community benefits and would look to take this experience to build on the opportunities coming out of public sector contracts.

**Equality**
- CITB can assist in the development of guidance to help teachers and practitioners, and work on a targeted MA campaign to address equality issues/active gender targeting.
- We will work to open up the sector to people from all backgrounds as outlined in the strategy.

The above areas present CITB in Scotland with important challenges, but the organisation is committed to working with all partners to develop and implement the strategy. Much of this proposed activity is being developed with SDS, and features as part of the Skills Investment Plan for Construction which can be found [here](#).

**Embedding Skills in Community Benefits**
CITB has developed guidance entitled Client Based Approach, which was commissioned by CITB and the National Skills Academy for Construction (NSAfC) to provide the working documentation for local authorities and other bodies procuring construction projects to embed employment and skills, right through from policy and strategies, to procurement and operational implementation.

In Scotland, there are currently 13 CBA approved public sector bodies with many more engaged in the process of gaining approval. The most recent approval was granted to Argyll and Bute Council in January 2015.

CITB is also currently working closely with the Scottish Futures Trust in their role along with Scottish Government as the Construction Procurement Review Team. The role relates to the implementation of recommendations which were made in the Review of Procurement in Construction published in October 2013.

A community benefits workstream which captures six of the recommendations has been identified by SFT and we have been working with them in providing guidance and support on how to implement these recommendations.
This includes direct reference to the Client Based Approach, case studies and work done with shared apprenticeships.

**Joint Investment Strategy**

CITB, in conjunction with the Scottish Government, has been implementing the second round of the Joint Investment Strategy (JIS), which will run for two years, and has levered in £2m with around £1.5m match funding from the Government and key partners.

Within this package of funding there are the following programmes and projects;

- **Pre-vocational training:** One of the programmes under the strategy is CITB’s pre-vocational training which has helped over 128 young people across 14 colleges to find work placements in 2013/2014. 121 students have completed the programme and 61 have moved on to MA programmes. The next stage of this successful programme will be to extend it to a further 300 people.

- **Onsite:** CITB has in conjunction with EQUATE Scotland, created a work experience scheme to help employers attract and retain female employees in the industry. Employers say they would like more women apprentices, and believe they bring valuable skills to construction. Apprentices say that work experience helps them decide on a career in construction, but women get few opportunities for this. Onsite provides a work experience scheme for trainees with 4 weeks working on site, supported with induction training and followed by with career development. Financial support is provided to help cover costs.

- **E-Learning Project:** CITB has helped to enable Learn Direct and Build and the college sector to update course existing materials to match the revised National Qualifications, National Progression Awards, Professional Development Awards and associated TAPs and Higher Nationals in the context of Curriculum for Excellence. It has also developed new teaching materials around energy efficiency/climate changes. Using the latest games technology new materials were developed that could be used on iPads, tablets, Smart phones and VLEs.

- **Linking Training to Procurement:** CITB is working with the Scottish Government to undertake a review of the recent research on the uptake of Client Based and Programme Based Approaches in Scotland, which has provided guidance to leverage a significant amount of training and employment opportunities into public sector contracts. We are also running a series of 11 combined best practice events for clients and interested contractors across Scotland. The sessions would consider how CITB’s Client Based guidance can be used effectively. Finally, CITB’s marketing department and the Local Sector Strategies Unit are developing marketing materials to help promote the approaches in Scotland.

**Conclusion**

CITB believes that students from across Scotland should be given access to apprenticeships and training, and will continue to work closely with colleges, local authorities, SDS and other partners to deliver this on the ground.

CITB believes that the Youth Employment Strategy, Skills Investment Plan and Joint Investment Strategy will all play an important part to help to improve the level of education of the construction industry at primary and secondary school level, but must go hand in hand with improving local skills networks if enough people are to be recruited into the sector.
Educational Attainment Gap - Commission for Developing Scotland's Young Workforce
February 2015

Introduction
The Federation of Small Businesses (FSB) is Scotland’s largest direct-member business organisation representing over 19,000 members. The FSB campaigns for an economic and social environment which allows small businesses to grow and prosper. An education system that meets the skills needs of small firms and prepares young people for employment is a key element of this environment.

The FSB has taken a close interest in vocational education and has responded to a number of consultations and parliamentary debates in recent years. Most notably, in the work of the Wood Commission,¹ the Scottish Government’s response (Developing the Young Workforce),² and as members of the National Invest in Young People Group.³

We welcome the opportunity to respond to the Committee’s inquiry. Rather than reiterate our key views which are covered in more depth in the footnotes below, we have restricted our response to the questions posed by the Committee and specifically those with a business and economic dimension. It is worth noting, however, that in our preliminary research we were unable to source information on the economic impact Scotland suffers from the variation in educational attainment.⁴

Summary
The Scottish Government’s aim to create a ‘work relevant educational experience for our young people’ is very welcome. Equally welcome is the financial commitment made by the Government to implement the Wood report. This movement in policy converges with positions we have been articulating for some time, namely: hardwiring a greater focus on employability, employer engagement and work experience in schools and colleges. In our view, the primary purpose of education at

² "Response to Developing Scotland’s Young Workforce Debate", FSB Scotland, December 2014.
⁴ The contextual data for the final Wood report suggests a major economic loss, stating that the ‘unemployment rate for 16-24 year olds with no qualifications is 47%...twice the rate overall.’
all levels is to equip learners with the skills they need to succeed in the job market – a purpose that is even more important given the impact socio-economic factors have on developing cognitive abilities and attainment more generally.  

Questions

1. If the Wood report was fully implemented, what would be the likely impact on attainment in schools and which pupils would benefit most?

The evidence base suggests that the risk of becoming unemployed is greater for those with the lowest qualifications. It is certainly possible that a focus on more vocational content could lead to better engagement in the school environment and improved educational attainment. However, it would be impossible to estimate with any degree of certainty.

2. The report aims to significantly enhance vocational content "without splitting young people off into separate streams at school age." What are the disadvantages of such an approach and how it could it be avoided?

We have not taken a view on this. It is our belief that creating parity of esteem between the vocational and the academic, as well as clear pathways into employment, would better equip young people for the world of work.

3. Other than those advocated in the report, what other measures are required to ensure young people leave school with "high level vocational qualifications which have strong currency in the labour market"?

This issue does not suffer from a lack of evidence; far from it in fact. There is little missing from the Wood Commission’s report and the youth employment strategy. The challenge will be how the education system practically improves vocational education for the benefit of all – learners and businesses alike.

Nonetheless, we would emphasise the importance of the following measures:

- Better equipping young people for the world of work with functional, work-based vocational training.
- Providing annual work experience placements to expose young people to the world of work.
- Better equipping young people to make informed choices about their future via

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5 See: [http://growingupinscotland.org.uk/about-gus/key-findings/](http://growingupinscotland.org.uk/about-gus/key-findings/)
a careers advice service that is in tune with current and future labour market
trends.
• Encouraging industry involvement in the classroom where they can offer value
and expertise (e.g. in entrepreneurship, coding, accountancy etc.).
• Encouraging more positive outreach by schools through the utilisation of
resources available within the wider public sector (Business Gateway, Scottish
Enterprise, Highlands and Islands Enterprise and so on) and in the developing
Invest in Young People groups.

4. Does the report place enough emphasis on pupils’ socio-economic
inequalities and how these could be overcome?
We are not best placed to answer this question.

5. Would a significant reorganisation in schools be required to
accommodate all the proposed changes (for example, enabling more links
with colleges/greater focus on work placements)?
While we are not experts on the education system, it is our belief that structural
reform would not be required to deliver Wood’s vision. The flexibility within the
senior phase of Curriculum for Excellence, in particular, should allow schools to
embrace the wider cultural change required to create an employer-led system that
equally values creates vocational and academic pathways.

6. What action and resources would be required to
deliver specific
recommendations aimed at schools and teachers?6
Regularly exposing teachers old and new to the world outside education is critically
important if the Government’s youth employment strategy is to be a success.
Indeed, it is no exaggeration to describe teachers as the key delivery vehicle for
large parts of the strategy. Undeniably, developing the skills and knowledge of
teachers in areas they are likely to have little experience in (employability/skills and
enterprise is a challenge) is a challenge – especially at a time of extensive curriculum
change. Whether the funding provided by the Scottish Government will allow
teachers time out of the classroom to undertake necessary CPD or create closer links
with business remains to be seen.

6 For example, developing teachers’ skills and knowledge in areas like employability and skills and
creating closer links between schools, colleges and employers.
Contact
For further information on any of the points raised in this submission, please contact Barry McCulloch, Senior Policy Advisor, on barry.mcculloch@fsb.org.uk or 0141 221 0775.
About the Scottish Building Federation

The Scottish Building Federation (SBF) is the principle trade association representing employers in the Scottish construction industry. Our membership comprises hundreds of construction businesses located throughout Scotland, ranging from local building firms through to major contractors.

Employment and skills in Scottish construction

The Scottish construction industry has experienced strong growth in recent months with levels of output returning to pre-recession levels. However, levels of employment within the industry have failed to keep pace with this growth in output. The number of apprentices being registered by the Scottish Building Apprenticeship and Training Council (SBATC) has increased over the past two years with 1,553 construction apprentices registered with SBATC in 2014. Although once more showing signs of growth, apprentice recruitment remains significantly lower than pre-recession levels which peaked at more than 2,700 building apprenticeship registrations in 2007.

Official statistics from the Annual Population Survey suggest that the Scottish construction industry has shed more than 50,000 jobs since the start of the recession. In this context, the requirement to grow the skills pipeline is now a critical challenge to future industry expansion.

The Q4 2014 Scottish Construction Monitor, a quarterly survey of the membership of the Scottish Building Federation, also identified a more intricate picture, highlighting varying occupational needs in key trades and managerial positions across different areas of the country.

It is also worth noting that growth in output from the Scottish construction industry has been characterised by spikes in output from certain sectors, notably public infrastructure, whereas rates of growth in other sectors such as housing and repair and maintenance have been noticeably more subdued. Ensuring balanced growth across all industry sectors will be crucial to future employment prospects within the industry. This is particularly pertinent considering the higher levels of apprentice recruitment the currently more restrained sectors of the industry have traditionally supported.

SBF action on skills

The Scottish Building Federation has identified four key areas in which action has been delivered to address the industry’s skills needs;

- Apprenticeships – SBF’s apprenticeship registration body, SBATC, ensures that apprenticeship qualifications are fit-for-purpose and reflect employer demand. Recent enhancements include the introduction of CSCS apprentice cards through the strengthening of health and safety training and the delivery of relevant CPD activity for college lecturers.

- Occupational Health – Constructing Better Health Scotland was established in 2014 as the national scheme for the management and promotion of occupational health in the construction industry. The CBH launch was supported by CITB and incorporates an ongoing initiative to train leaders on the importance of effective absence management, wellbeing monitoring and employee support and intervention.
Sustainability – ‘NETpositive’ was an innovative project which created an online sustainability appraisal and strategic action plan tool with supportive training seminars which aimed to provide the industry with a structured approach to improving our sustainability credentials.

Management Development – SBF continues to deliver bespoke training programmes to member companies concentrating primarily on people management and employment affairs. In conjunction with likeminded federations, SBF is also promoting the subsidised delivery of the NVQ level 6 Diploma in Construction Management.

Reflections on measures to raise Scotland’s educational attainment

As demonstrated above, Scottish Building Federation members share a commitment to developing and sustaining a skilled workforce within the Scottish construction sector.

A critical element in delivering this is effective communication of the many and varied career opportunities now available to young people within the construction sector. As an industry, we need to do more to attract new talent through projecting a more positive image of the sector in addition to overturning outdated perceptions that the industry can only offer low-skilled, low paid manual work, which is far from the modern reality.

To this end, we welcome intentions to strengthen Careers Information, Advice and Guidance in schools, particularly activity in this area which is focused on early intervention. Whilst it is recognised that in many areas of the country there is no shortage of demand for contraction apprenticeships from school pupils, it is also acknowledged that more modern, interactive and online careers guidance will provide a platform to widen the pool of potentially interested applicants and facilitate more informed career decisions which can only be of benefit.

A greater focus on vocational training and employability skills in schools would also be welcomed and if accompanied by a corresponding attitudinal change to more substantially value the worth of vocational training, in line with more traditional academic pathways, could play a significant role in raising attainment for all students.

Such vocational training could also provide an ideal platform to further address gender imbalances within vocational training, allowing the strengths of the industry and the potential career opportunities to be experienced by all.

However, a significant level of concern remains regarding proposals to create ‘foundation apprenticeships’ in craft occupations. Such reservations are broadly categorised below;

- Practical issues – incorporating a meaningful level of apprenticeship training into the traditional school timetable would be challenging, practical based training can be resource and labour intensive, instructors would have to be suitably qualified and trained to recognised industry standards and health and safety requirements would be restrictive.
- Training issues – embedded within the apprenticeship model is an inherent interaction between the competencies taught during off-the-job training and the opportunity for apprentices to practice such skills in a live environment on a daily basis. It is unlikely that such opportunities could be provided to pupils undertaking foundation apprenticeships.
- Progression issues – if candidates undertake training that is accepted towards partially achieving elements of the Professional Development Award (or equivalent) through the foundation apprenticeship model, there would be very limited options available for further
progression should the candidate not immediately benefit from an apprenticeship when leaving school.

Instead, we would prefer to see the existing pre-vocational qualifications such as Skills for Work and the National Progression Award in Construction utilised more creatively. SBF is currently involved in a consultation exercise to update and enhance such courses, embedding work experience units, concentrating on employability and health safety and providing access to a wider range of crafts and occupations. Such taster courses may be more deliverable and may also be of more benefit to pupils at that stage in their development.

Conclusion

SBF broadly supports many of the recommendations contained within the Wood Report and the themes highlighted in the more recent Skills Investment Plan for the Construction sector and are keen to see the introduction of practical measures to attract more young people into the construction industry and to ensure that the transition from school into the world of work is as smooth as possible.

This should include the promotion of stronger links between industry employers and schools and access to practical careers advice and vocational training to prepare young people for work as a core part of the curriculum. As a better alternative to the proposed introduction of foundation apprenticeships, we would like to see broad based pre-vocational training utilised more effectively.