**Identifying, engaging and facilitating the HE progression and sector entry of those from under-represented backgrounds**

**A report for the Bridge Steering Group**

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**1. Summary**

The construction industry is considered vital to the UK economy. It also constitutes a large sector, accounting for some 2.4 million jobs, and one that has enjoyed a prolonged period of growth. Yet, it faces an acute skills shortage that threatens its continued expansion. Consequently, there is a real and recognised need to encourage more young people into the sector, including from groups that have traditionally been under-represented in its workforce, amongst them women and those with disabilities, as well as those from disadvantaged backgrounds and ethnic minorities (Dele-Ajayi. 2017).

Commissioned by the Bridge Project Steering Group, this report provides a summary of recently published work in order to better understand the sector’s workforce requirements. It then draws on the views and insights of a sample of key stakeholders, including employers, current students, future leaders, and lecturers and tutors (industry professionals), in order to explore the challenges the sector faces in recruiting more young people from under-represented backgrounds, and what some of the strategies to counter these challenges could be. These findings are then used to formulate a set of recommendations that it is hoped will be of value to the Project Steering Group.

**2. Recommendations**

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| **Part 1. Networks**  Recognise the influence that networks can play in encouraging and facilitating entry into the sector.   * Whilst family associations may help to explain the composition of the current workforce, these links can also be used to support sector access and progression of those from under-represented backgrounds.   Consider conducting research in this area, in order to better understand how networks operate and what can be learned from them in order to support efforts to widen access to the sector. |

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| **Part 2. Social media and online resources**  Consider how social media could be harnessed to raise awareness of the sector in general and professional construction in particular, especially amongst young people.   * In this context, consider profiling women and those from BME backgrounds who have successfully progressed in the sector * Explore the value of conducting an audit of online resources that provide information on the sector and from this compiling a guide and check-list of useful sites for careers advisors, teachers, parents and young people interesting in learning more about the sector. |

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| **Part 3. Good practice in current training programmes**  Recognise the effectiveness of many advanced (Level 3) and HE training programmes, especially in relation to:   * The opportunities these afford students to experience the sector and the variety of roles associated with professional construction * The part played by tutors and lecturers in supporting the educational and career progression of their students   Consider ways to identify, promote and share these good practices more widely amongst colleges and universities. |

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| **Part 4. Role models and sector ambassadors**  Recognise the influence that those from under-represented background can play as role models in encouraging others from similar backgrounds to consider training and careers in professional construction.  Recognise also that some young people from these backgrounds could become ambassadors for the sector in supporting outreach interventions with schools and colleges. |

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| **Part 5i. Outreach interventions and school support**  Consider ways to raise awareness and interest in professional construction in schools and colleges, including:   * Presentations and talks by employers and newly qualified professionals who can inform young people about the sector and offer biographical insights into the education and training routes they took * Interactive workshops that provide insights into the roles of those working in professional construction. |

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| **Part 5ii. Outreach interventions and school support**  Recognise the importance of providing a progressive programme of interventions that:   * Raise awareness of the sector from an early age (prior to the commencement of GCSEs and when post-14 options are being decided) * Offer more detailed insights as well as first-hand experiences (work placements and similar) of the sector as students complete their Level 2 studies and consider post-16 options * Provide information and support to Level 3 students when exploring their post-18 destinations. |

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| **Part 5iii. Outreach interventions and school support**  Consider ways to support the work of school and college-based careers advisors, in order to ensure they are informed of the realities of the sector, including the range of professions that work in construction and the training routes available. This may include:   * Guidance on key websites and online sources of sector information * Identifying employers prepared to provide sector insights * Encouraging and facilitating collaborations between contacts in Construction and Built Environment departments in colleges and universities and careers advisors and teaching professionals in local schools. |

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| **Part 6. Key messages**  In seeking to engage and work with young people, consider the key messages about the sector that need to be communicated and that likely to appeal to those from under-represented backgrounds. These include the:   * Variety of job roles available * Rewarding nature of jobs in professional construction * Prospects for progression * Demand for skilled professionals * Opportunities available to move around the country and work abroad * Rewards of supporting a project from the initial planning stage to its completion * Variety of projects that construction professionals are likely to be involved in * Chance to pursue higher-level training * Opportunities to gain professional, chartered status * Chance to have a positive social, economic and environmental impact. |

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| **Part 7. Further research**  Explore ways to advance current understanding of the sector and, in particular, the challenges to widening access and the approaches likely to have a positive impact. In this respect, consider:   * Returning to those surveyed for this study to capture their reflections on - and assessment of - the study’s findings and recommendations * Gathering the views and insights of those who left the sector (given current rates of non-retention), or who did not progress into the sector on completion of their (advanced/graduate level) training * Surveying a sample of younger learners (in school years 8-11) who have yet to decide on their post-16 (Level 3) options * Interviewing a sample of school and college-based careers practitioners (these individuals could also offer guidance on how best to engage with information, advice and guidance professionals in promoting the sector) * Conducting an audit and compiling a repository of outreach practices associated with construction and the built environment found across the FE and HE sectors. |

**3. Introduction**

The construction industry is considered ‘fundamental’ to the UK economy, in ‘building homes, schools and hospitals, offices and factories’, as well as the country’s ‘transport and energy infrastructure’ (GOV.UK. 2018). It is also a large sector, accounting, one recent estimate suggests, for some 2.4 million jobs, and one that has enjoyed a prolonged period of growth (House of Commons, 2018, 3-4). Yet, there are significant concerns that continued expansion could be compromised because ‘there are not enough employees to fill the roles that this growth is creating’, and that the industry is facing a ‘critical skills shortage sector, with many of these new jobs’ requiring higher level training (Dele-Ajayi. 2017).

Indeed, it is suggested that this ‘skills shortage’ has already ‘limited construction initiatives’, and could become more acute, given an ‘ageing workforce and a dwindling pipeline of skilled young workers’ (Murphy, 2019, n.p.). Arguably, the prospect of Brexit has also added to the sector’s labour challenges, with many skilled construction workers from the European Union ‘leaving the country due to immigration issues or fears.’ Consequently, there is a real and recognised need to ‘encourage more young people into construction’ (Murphy, 2019, n.p.). This includes widening the appeal of a sector that has traditionally attracted few women and those with disabilities, as well as those from disadvantaged backgrounds and ethnic minority groups (Dele-Ajayi. 2017).

Commissioned by the Bridge Project Steering Group, and based on a combination of desk and primary research, this report begins by offering a summary of recently published reports and papers in order to better understand the labour market and workforce recruitments as they relate to the construction and built environment sector, and how these might develop. It then draws on the views of a sample of ‘key stakeholders’ (BRIDGE project website, 2019) to further explore the challenges the sector faces in recruiting more young people from under-represented backgrounds, and what some of the strategies to counter these might be. In this endeavour, the insights of a sample of current construction and built environment students on advanced level programmes have been gathered, along with those from two groups of future sector leaders, who are combining working in the sector with HE-level training. Complementing these perspectives, views have also been collected from a sample of large employers, as well as ‘industry professionals’ in the guise of four FE tutors and lecturers at the two colleges in which the students and future leaders were based.

**4. Sector trends: a review of recently published reports and studies**

Since Dele-Ajayi’s *Literature Review Summary* for the Bridge Project, which was produced in 2017, a number of reports and studies have been published. These afford insights into some of the most recent trends in the sector. It would appear that skills shortage described by Dele-Ajayi, and the consequent need to widen recruitment, including amongst groups traditionally under-represented in the sector, has become even more acute. In this respect, Murphy (2019) talks about projects the sector is now unable to deliver. Table 1 summarise the widening access challenges identified by Dele-Ajayi (2017) and, where more recent accounts have been published, provides updates on these.

**Table 1. Identified challenges faced by the construction sector in widening recruitment**

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| **Reported by Dele-Ajayi (2017)** | **Referenced in recent reports and publications** |
| *Generic:* Imagine of the industry - non-professional/not associated with higher education (inc. in views taken by teachers) | EMSI data from 2018 details the 13% growth needed in the number of project managers working within Professional Construction to be able to cope with the demands of infrastructure development, such as HS2 |
| *Generic:* Poor knowledge of careers in the industry (students, parents and teachers); and career paths | CIOB *Future Careers* campaign highlights the need to recruit 157, 000 new people into the profession by 2021, and the lack of guidance available to achieve this target |
| *Gender:* Male only image | In 2019, *Go Construct* detailed that only 14% of the workforce are female. |
| *Gender:* Male culture, inc. in language used - foreman etc; chauvinistic perception  *Gender:* Recruitment practices - informal, discriminatory/sexist attitudes  *Gender*: Male instructors and inadequate support and mentorship; male-centric construction-related courses | The website [www.humresconstruction.co.uk](http://www.humresconstruction.co.uk) considers progress in the area of gender equality and highlights that the traditional problems persist. |
| *BME:* White (male) dominated; ‘not for people like me’  *BME:* Language barriers  *BME*: Low-income, low-status perceptions, also harsh, inflexible working conditions; lack of professional development  *BME:* Family networks mean lack of links with the industry  *BME:* Higher drop-out on construction-related courses, with many not going on to work in sector after graduation. Possible reasons inc. inadequate support, curriculum content being Eurocentric and not inclusive. | The College of Estate Management in various reports dating back to 2014 emphasise the need for a diverse workforce and say ‘some’ progress is being made.  However, the evidence from the literature is that the Equality Act (2010) is still not embedded into recruitment practices.  BAM highlight that 19% of the construction workforce are nearing retiring age, and the only way to replace these staff is by increasing diversity.  UK Government data shows that there are disparities even within minority groups, underpinning perceptions that the sector is not being accessed by certain groups. |

A number of the themes summarised in Table 1 are discussed in the following chapters of this report. These draw on the insights and experiences of a sample of employers, industry professionals and future sector leaders, as well as two groups of students on advanced-level construction-related programmes. Besides considering the recruitment challenges the sector faces, these discussions were able to explore the effectiveness of current efforts to broaden access, along with ideas for other measures that could be taken to widen the sector’s appeal.

**5. Methods and approach**

As outlined in the original proposal, the primary research for this study involved surveying a sample of employers and future sector leaders. Semi-structured interviews were used to gather the insights of managers at two large construction companies on their perceptions of the sector and its current and future workforce. To capture the views of future leaders, two sets of focus groups were conducted with HE students in the final year of their foundation degrees and HNC programmes in professional construction at two colleges.

Complementing the perspectives offered by current and future sector leaders, a sample of Level 3 students on construction-related courses at the same two colleges that took part in focus group discussions, with one group held at each institution. Membership of these groups included those from backgrounds under-represented in the sector (amongst them a number of women and those from BME backgrounds, as well as one student with a registered physical disability). Besides offering their views on the sector and the reasons they had chosen construction-based courses, these discussions provided an opportunity to explore their ideas for practices and initiatives that would help encourage others (like them) to do the same and to then pursue careers in the sector.

In addition, it also proved possible to gather the insights of four tutors from the two case study colleges. These were teaching on a range of construction courses, including those at advanced level. Besides offering their thoughts on popular perceptions of the sector and their assessment of the effectiveness of current measures to widen the construction industry’s appeal to under-represented groups, they also volunteered ideas on what other actions could be taken to progress this agenda.

**6. Popular perceptions**

The first area that was explored with interviewees and focus group participants concerned what they considered to be popular perceptions of the sector. There was a general consensus on this subject amongst all those surveyed groups.

**Employers and instructors**

For one of the managers interviewed, the predominant view of construction was of a ‘hard, dirty and male [dominated] environment’. The second manager also talked of an industry that was characterised as being ‘male-orientated and very robust’. Similarly, tutors and lecturers described a ‘white male dominated’ sector widely associated with ‘hard manual labour’ and lots of ‘foul language’, and that offered ‘reasonably well-paid jobs’ but in which employment could be precarious and often at the mercy of the weather.

**Future leaders**

Along comparable lines, one of the groups of future leaders argued that the popular view of the sector was one made up of ‘trades.’ ‘A lot of people when they think of construction’, it was added, ‘think of on-site and labouring’. Elaborating, members of the same group argued that ‘there is this narrow perception of what construction involves. It’s just trades or managing something. It’s your white van man stereotype’. Similarly, future leaders in the second group suggested that people tend to view construction as the ‘trades’ to be found on a ‘building site’.

Participants in both of the future leadership groups also acknowledged their own initial lack of awareness of the range of occupations found in the sector. ‘I wasn’t aware before I went into it’, one observed, adding that ‘I started as a bricklayer and plasterer, and then found out there were these other roles out there.’ Another member of the same group agreed: ‘I did not know about them until I joined [the company] I am now with. Indeed, one participant recalled applying for a job at their current company in the belief that they would be doing bricklaying, which was something they had done ‘at school’ and had ‘enjoyed’. However, this turned out to be a management role. Upon realising this, they were advised to ‘go away and think about it’, during which time they used ‘Google’ to discover what quantity surveying was. One member in the second leadership group suggested that this lack of awareness was evident from the advice they were given in school. The school, it was observed, ‘told me that [construction trades] were all I was capable of [doing]’.

**Students**

Both of the student groups discussed the popular and often narrow perceptions of the sector they had encountered. ‘People thinking it is hands-on work’, one participant observed. ‘They don’t see the stuff we are doing’. Other members in the same group concurred, arguing that for many ‘construction is [about] bricklaying’ and ‘being on a building site’ populated by ‘white males’. Likewise, those in the second group talked about the widely held view that construction is dominated by ‘practical jobs.’ Indeed, there was also a suggestion amongst some in this group that women may be discouraged from embarking on construction courses because they are likely to be viewed as being purely practical in nature.

One student group also proffered an explanation for the sector’s popular image. Because of the nature of the business’, it was noted, ‘the people the public are most likely to encounter are bricklayers and the people doing wolf whistling on building sites.’ Another participant added that this is ‘one thing that is frustrating. I say I do professional construction and they say bricklaying!’ The consequence of these perceptions, and this lack of awareness of professional construction, was also explored with the same group. There was general agreement that it was having the effect of dissuading many young people from pursing training and careers in construction.

**7. The reality**

**Employers and instructors**

The reality of the sector and the employment opportunities it offered were then considered. One of the manages discussed the increasing number of women working in the industry, especially, it was observed, in local authorities where they can be found in management roles. Whilst there were a few people from BME backgrounds in the sector, the second manager emphasised the number of eastern European construction workers that were to be encountered in the region they operated from. Meanwhile, some of the tutors and lecturers observed that even in terms of building site roles, the physical demands of manual labour were rather less than they used to be. Here, reference was made to ‘devices’ available that make jobs such as bricklaying less onerous. Moreover, it was argued that away from the building sites and in design offices one would find ‘a lot more diversity, in terms of male to female ratios’.

**Future leaders**

For future leaders and current students the reality was represented in the variety of career opportunities available. This was exemplified in the range of roles they were being training in. These included quantity surveying, site managing, design managing and bid managing, along with the role of civil assessment estimator. Capturing the gap between popular perceptions and the reality, one future leader observed that:

Outside the industry, everyone knows what an architect is and what they do - they draw the buildings. But they don’t realise that they have x-amount of other roles in the design team, [along with] building services and structural engineers. And all of these come together and that is just the design team. Then you have your on-site team as well!

**Students**

Similarly, the students surveyed discussed the range of construction-related careers they hoped to progress into, including quantity surveying, civil engineering, project management, and architecture, whilst one participant talked about wanting to study architectural technology. In sum, it was observed, ‘professional construction’, which is an often-overlooked part of the industry, includes roles associated with ‘management, designing and engineering’, everything, it was added, that goes on ‘behind the scenes that you are not really seeing’. Indeed, it was observed that there were also opportunities to go into law, including in the area of regulation, and work for the government and local authorities, as well as move into ‘private consultancy’.

**The under-represented nature of the current construction sector workforce**

Yet, whilst the reality offered a potentially more appealing prospect than that portrayed in popular impressions of the sector, all those surveyed acknowledged that particular groups remained under-represented. In this respect, one of the managers acknowledged that the number of employees in their company from the ‘BME community’ was ‘low’, although they were unable to provide exact figures. Meanwhile, around 20 per cent of their workforce were female, and most of these, it was noted, were in ‘sales, admin, and health and safety roles’. Although it was added that some women were employed in ‘quantity surveying’. Similarly, the other manager acknowledged that only five women worked in their company, and these were in office-based jobs. Currently, the company had ‘one female carpentry apprentice’ and did not employ anyone from a BME background.

The sparsity of females being trained in construction was also commented upon by the tutors and lecturers interviewed. Those from one of the colleges involved observed that only one female student was currently on their full-time bricklaying course, whilst there had not been any female carpentry trainees for the past five years. That said, reference was made to a number of ‘black and Asian’ students who had progressed onto various construction and built environment-related level 3 courses. Similarly, a lecturer from the other participating college observed that whilst the gender imbalance may not be as wide as the public perceive, the sector continues to be male dominated, whilst the proportion of those from BME backgrounds is still ‘lower’ than would be expected if the workforce were to reflect the ethnic composition wider population.

The ethnicity and gender imbalances associated with the sector were also discussed by focus group participants. Regarding the latter, a female member of one of the leadership groups admitted knowing of only two other women in professional construction. ‘All the other women’ they had encountered were ‘in marketing and accounts’. The scale of this recruitment challenge was commented upon by another participant from the same group. ‘All the applications we put out for site manager and such are white males. They are the only applications you get!’

**Recruitment challenges**

**Family associations**

Whilst the sector could offer an array of careers, including those in professional construction, a challenge identified by one of the industry professionals was a tendency to recruit from those who already had family links with the industry:

You have these people who internally know what the job entails and how rewarding it can be who then get their sons, cousins, nephews and nieces to apply for those jobs. If there is already a bias in the industry, and people are letting their children know about it, that can have an impact. May be construction companies are not getting a lot of diversity purely because of how those jobs are being [advertised] - by word of month from people who are already in the industry.

A comparable argument was advanced by one of the future leaders’ groups. In this respect, a member of this group observed that a ‘lot of those [I] work with are family members of people’ who are already established in the industry. ‘It is very family orientated. [It helps] if you know people’ in the sector. Further discussion - including with focus group members who, themselves, had family connections, generated a similar explanation to that proffered by the industry professional. A key benefit of this association, it was argued, would be the insights gained into what working in the industry would be like. Accordingly, one participant who had been ‘influenced’ by her father recalled spending her ‘six week [summer] holidays helping him’, which included visiting ‘sites’. Another observed that they were able to gain ‘work experience’ in the sector through their cousin ‘who is a quantity surveyor’.

Family ties were also referenced by a number of the students surveyed. One focus group member discussed how their interest in the sector had been informed by an ‘uncle who is a quantity surveyor’, and then spoke of her desire to ‘follow [in] his steps’ and do ‘what he did’. A second participant with an interest in civil engineering noted that his ‘uncle is a highway engineer’ and that this had influenced his choice of career, whilst another student noted that both their parents were quantity surveyors.

Family connections could, in some circumstances, help to widen entry into the sector, as appears to have been the case with a future leader, as well as one of the students surveyed, both of whom were female, whilst one was also from a BME background. This tendency is also acknowledged by Morton et al. (n.d.), who talks about such choices being ‘perceived as more natural by [such] families’. However, it can be argued that in many other instances such ties can help to explain why those entering the sector often have similar backgrounds to the existing workforce.

**Tendency to promote from within the sector**

A further challenge to widening access into the sector was discussed by one of the groups of future leaders. This concerned a tendency for management roles to be filled by those ‘coming up through the trades’. This, it was suggested, favoured white males since they dominate this aspect of the industry. A similar observation was made by one of the employers, although they argued that whilst the perception might be that the best site managers will be former bricklayers or carpenters, this was not the case.Their best site manager that this interviewee had encountered had previously worked in sales.

**A white male dominated culture and gender stereo-typing from an early age**

There was wide recognition amongst those interviewed and surveyed that the [white] male dominated culture associated with construction could also be discouraging to women and those from other under-represented groups. Recalling her own experiences, one female future leader noted that being ‘wolf whistled’ on site was a ‘common’ occurrence. Indeed, it was added, ‘I don’t think I would recommend it to that many women, having worked in it, because it is like that’. A male participant from the same group also acknowledged the detrimental impact that a male-dominated culture could have on their own behavior. ‘For me, personally’, it was observed, ‘if a female quantity surveyor turned up, you might adopt bullying tactics. It’s that alpha male approach!’ Similarly, one of the tutors talked about the likelihood that females and those from BME backgrounds would feel ‘dauted and uncomfortable being the exception’ in a predominantly white male environment.

In addition,one of the managers suggested ‘gender-stereotyping’ at an earlier age could also have an impact on subsequent levels of interest in the sector. Girls, it was argued, tend not to study the subjects in school that would prepare them for the industry. Along similar lines, members in one of the future leaders’ groups recalled their experiences of how the sector had been portrayed in school. ‘When at school’, one participant recalled, ‘construction was just a bit of wood work and welding pipes together. That was all you were aware of. We were not told about the management side’. Elaborating, reference was made to the practice of ‘pushing you down the trades’ route. Echoing this, another member of the same group observed that ‘when I was at school, construction was seen as a bad thing. If you did not do well, [that is where] you would end up’. The view, it was added, was that you ‘don’t need to get qualifications to get into a trade’. Similarly, one of the participants in the other leadership group recalled being told by their school ‘that [construction] was all I was capable of’. ‘Boys’, it was added, were ‘told construction trades and girls told hairdressing!’

**Current provision and support**

**Work in schools**

However, in reviewing current initiatives there was general recognition that things had progressed. Some of the tutors interviewed spoke about their department organising days each year for primary school children to visit the college. These occasions, it was added, included ‘construction competitions.’ Moreover, another tutor talked of a change in the guidance being given to young people. ‘The last couple of years’, it was observed, some careers practitioners have been advising students about quantity surveying and that was something he had not encountered previously. Similarly, one of the participants from the future leaders’ groups argued that more outreach with schools is now taking place. ‘Since working with the company’, they had been involved in a number of school talks. ‘We, as a company, are going around telling pupils of the opportunities.’

However, both tutors and future leaders admitted the limitations of current provision. Tutors noted that no initiatives were currently being run to encourage girls onto construction-related courses at their college. Similarly, one of the future leaders argued that ‘I still don’t think’ that what we do to encourage young people into the sector ‘is broad enough and not enough people know about it.’ Accordingly, another member of the same group observed ‘even when we have gone into schools, we’ve made bird boxes and put iron mongery on doors. Again, that is pushing trades, even when I am meant to be promoting professional construction’. ‘All it is doing’, it was argued, ‘is focusing them on trades and labour, rather than on professional skills, such as estimating, quantity surveying and design’.

**Site visits**

In assessing other current interventions, members in one of the future leaders’ groups talked about the site visits their company organised for young people. We ‘do stuff where we show school kids around the site’. Whilst providing valuable insights, this initiative also had recognised limitations. ‘Once again’, it was observed, ‘we are showing them a building site and they are seeing all the trades but we are not showing them what a manager or a quantity surveyor does’.

**Level 3 and HE- training programmes**

A number of participants from both the future leaders and students’ groups reflected on their current training programmes. These courses were recognised to have been effective in raising their awareness of career opportunities within the sector. Participants in one of the future leaders’ groups observed that‘when you come onto the course, you are not sure what avenue you are going to go down’. However, as one focus group member remarked, by being able to ‘move round their company and work in every department’, including ‘accounts’, you are able to ‘pick where want to go’.

A number of the student participants also emphasised the sector insights gained on their level 3 programmes. Indeed, one judged the course to be ‘fantastic’. Here, reference was made to being ‘assigned a mentor’ who ‘meets up with you’ on a regular basis and from whom you receive support and guidance, and who you ‘shadow’ in the workplace. The work experience aspect of this programme also received positive comment, since it offered a variety of work opportunities. Indeed, one participant observed that they had been on one work place visit a month, which provided them with a chance to learn about what their job would be like on a ‘day-to-day basis’. The benefits of working on site and learning from those on higher level training programmes has been highlighted by Raven (2018, 46)

Other aspects of their courses to receive positive comment included the ‘facilities we have’ and the number of presentations received from those working in the sector, who ‘talk about their experiences and how they got to where they’ are now. In addition, one participant recalled the visit organised by the college to a ‘regional skills show’, which they judged to have been ‘amazing!’ The same participants also highlighted the fact that there are ‘always lecturers about [the college] that you can ask’.

Indeed, there was wide praise for the support provided by their tutors and teachers, including in informing them about HE opportunities and the different progression routes that would be available once they had completed their level-3 programmes. This accords with the findings of Rouncefield-Swales (n.d., 2), who talk of the role that tutors can play in encouraging progression to HE-level study. Similarly, Raven (2018, 46) Carter (2010, 6) and Connor and Little (2005, 3) emphasise the value of showing learners the training pathways available to them.

**10. Intervention ideas**

Whilst a number of current activities were commended, along with various good practices associated with existing advanced and HE level programmes, there was a shared recognition amongst those surveyed that more needed to done. According to one of the tutors interviewed, these sentiments were also to be found across the sector more generally:

I think the industry is well aware. I read a lot of journals linked to the industry and one of the hot topics in more recent journals has been diversity in the construction industry. So I think there are certainly people in the industry driving for change, and I think there are certainly people in the industry that are well aware of the need for diversity and the benefits [that it can bring]

Discussions with managers and tutors, as well as future leaders and students, identified a range of ways to encourage those from under-represented backgrounds to consider training opportunities and potential careers in the sector, and especially in professional construction.

**Work experience**

An initial suggestion made by one of the employers was for ‘more work experience in the construction environment’ to be offered by schools. Work experience opportunities were also identified by members from one of the future leaders’ groups. Drawing on their experience, one participant recalled attending some of the training sessions provided for a group of engineering apprentices at Rolls Royce, whilst he was in school years 10 and 11. This involved classroom work as well ‘practical skills workshops.’ The experience, it was added, offered a ‘good insight into what an apprenticeship would be like’. Informed by this, the suggestion was then made of offering year 10s and 11s the chance to spend a week in a ‘professional environment’. This would enable them to gain an insight into the work of property managers, quantity surveyors, estimators and others engaged in professional construction.

One of the student group also explored the value of providing work experience opportunities for school pupils. In this instance, reference was made to offering such provision to those in year 11. However, there was an accompanying need to ensure both employers and learners were committed to this venture. If the student is ‘only there for a week’, it was observed, one would need to address and counter the view that ‘I want bother’.

**Harnessing social media and advertising campaign**

In raising awareness of professional construction and the opportunities if offers, future leaders argued that the sector should make greater use of *Linked in*, *Twitter* and *Facebook*. Using social media, it was argued, would enable the sector to be promoted ‘where young people are most like to see it’.

Along similar lines, one of the tutors suggested an advertising campaign led by one or more of the sector’s professional bodies, and that would seek to change the popular ‘imaginary’ of the industry by featuring women and those from ethnic minorities working in a range of construction roles, with the aim of encouraging people to realise ‘that person is like me!’ and I could do that as well.

**School engagement**

One of the student groups highlighted the value of providing ‘more presentations’ and ‘talks in schools’ by professionals from the sector. These, it was argued, should emphasise that it is ‘not just bricklayers’ but that the sector has a range of professional roles, including ‘architects, quantity surveyors and estimators’, as well as ‘people who regulate the buildings.’ The people delivering these insights needed to be able to ‘interact with their audience’. They could, it was added, include lecturers from here’ who could tell them ‘what to expect if they were to go into construction’. The need to engage companies in order to ‘educate youngsters about industries and routes into particular sectors’, and encourage ‘more employers’ to speak ‘to students about [what skills they are looking for](http://www.cityandguilds.com/~/media/Images/About%20Us/Broadsheet%20News/Oct%2013/Making-education-work-infographic-900%20jpg.ashx)’, is emphasised by Raven (2018, 44) and Banning-Lover (2016, n.p.)

There was also a consensus amongst future leaders that more should be done with schools. As with the student group, the suggestion was made that those from the sector should provide pupils with a sense of the breadth of roles and occupations available. However, whilst talks were recognised to be of value, reference was also made to workshops. These could offer a more interactive way of exploring the sector with pupils, although it was recognised that some thought would need to be given to how one would ‘run an interactive workshop on quantity surveying’. These ideas, it can be noted, chime with a widening participation programme in architecture run at University College London. This offers a series of ‘skills development workshops’ along with mentoring sessions for young people ‘from backgrounds that are under-represented in the building design professions’ (University College London, n.d.)

Along similar lines, some of the tutors interviewed also emphasised that more time should be allocated in schools and colleges to explaining how jobs in construction could lead to long-term careers, and in discussing the various routes available. One suggestion arising from these conversations was that their college should hold an annual event for girls in years 7 and 8 (11 to 13 year olds) that would enable them to ‘engage in construction tasks’ and learn more about the sector.

**Educate and inform careers practitioners**

In addition to working with pupils directly, there was a perceived need amongst the future leaders surveyed to educate careers practitioners, given the role they can play in supporting young people with their training and career options. ‘The careers advice people’, it was argued, ‘need educating on it in school, so they are not continuing to push the negative, stereotypes - if you don’t do well, you will end up as a plumber’. The question of how to inform careers advisors of the realities of the sector was then explored. In response, the suggestion was made of ‘discussing it with local contractors, or’, it was argued, encouraging careers advisors to ‘go out to the contractors and visit them on site.’ Focusing attention on careers advisors, it was argued, could have multiplier effect. It is ‘more effective’, it was observed, to inform ‘an older person’ than individual students, since the former ‘is going to be talking to thousands of children’.

Similarly, participants in one of the students focus groups emphasised the need for more careers information in schools. This, it was added, should provide insights into ‘what’, for example, ‘quantity surveying’ involves. It also needed to emphasise that ‘it is not just the labour bit, and that there are other roles’, not merely those that are concerned with ‘physically constructing the project’. These suggestions align with one of the recommendations to arise from an RICS (2016, 14) survey and report, which argued that engagement with careers advisors would help to ‘ensure they are informed and have a clear understanding’ of the sector. They can then ‘actively guide subject choices to align with our industry’.

**Online information**

One of the groups of future leaders also discussed the need to support the guidance provided by careers advisors with online information. Whilst the websites of the various chartered bodies associated with the sector could be of value, it was recognised that they may not provide all the required information and, it was added, one needed to be aware of these in the first place. Although they were unable to recall the details, one participant remembered finding a very useful site ‘when I was looking into what estimating is’. ‘This website’, it was noted, provided a ‘description’ of a range of professional construction ‘jobs [and] qualifications’, along with information on the ‘day-to-day running, what you can expect to earn, the average age of an estimator (and other occupations), and the preferred qualifications - it had everything!’[[1]](#footnote-1)

**Sector ambassadors for the sector**

Given the composition of one of the student groups, which comprised two females, three participants from BME backgrounds and one with a disability, there was a recognition that individuals like them could play a part in broadening the sector’s appeal. Moreover, given the variety of areas they wanted to specialise in - including civil engineering, project management, quantity surveying and architecture - their examples could help to illustrate the range of routes available in the sector. In this respect, one participant observed:

We have found it the hard way, so we can tell people how to do it, [which would] probably makes it easier [for others]. We need to share it. There is not enough knowledge about the courses or how you get into them.

**The age groups that should receive information and advice**

Also explored in these discussions was the age at which it would be best to start raising awareness of the sector amongst young people. The general consensus amongst the students who were asked this question, was that careers guidance should begin early. One participant argued that the ‘best audience’ would be ‘people doing their GCSEs and thinking about their next steps’. Other focus group members suggested that pupils should be made aware of the sector at an even younger age. Either ‘right at start of GCSEs’ or, it was added, ‘may be before that - in year 8’ when options are starting to be considered. The rationale offered for this was that ‘certain GCSEs will be needed’ to quality for particular courses. This accords with one of the suggestions made by the Construction Industry Council (2009), which talked of the need for ‘effective early career mentoring before young people make their GCSE or A-Level choices’.

The importance of early information and advice was also recognised by those in the future leaders’ groups, who reflected on their own routes into the sector. Those in one of the groups acknowledged that they did not have an ‘inkling’ when they were younger of what they were going to go into ‘because’, it was added, we were ‘not aware that these professions existed!’ Indeed, most decided to enter the profession during their time in sixth-form or after leaving school, and often in an indirect way. In this respect, one participant recalled doing ‘one year of sixth form’ before deciding to apply for a job in construction. Another ‘did sixth form for a year and then got’ into a construction role on the ‘second time’ of applying. A further participant described ‘falling into’ the sector, having gone onto ‘A-levels’ and then deciding that they did ‘not want to go to uni full time but still wanted [to gain a] degree’. Another did not start at their present company until 21, at which point they also commenced training as a quantity surveyor, whilst a further member of the same group ‘started training as an electrician, before they saw a job advertised for a ‘trainee estimator’. Those amongst the second group of future leaders offered a number of similar accounts, with one noting that they ‘drifted into it’, following attending a college open day.

However, whilst they emphasised that pupils should be supported in exploring their career options - including those associated with construction - from a young age (so that ‘knowledge becomes more embedded’), the importance of promoting the sector amongst older learners was also emphasised. Indeed, one future leader argued that there was likely to be a ‘sweet spot’ when more detailed information should be provided. Here, reference was made to ‘sixth formers’ and those ‘starting at college’ being ‘a good market’ for such insights, along with those doing ‘A-levels who do not know what they want to do’.

A similar suggestion was made by one of the student focus groups. Drawing on their own experiences, participants identified the need to inform older learners about the importance of gaining an HE-level qualification if they wanted to pursue a career in professional construction. Now, in the final year of their extended diplomas, all intending to go onto university, either though pursuing a full-time degree or opting for a higher apprenticeship. However, for every member of this group the decision to do so had been made either at the start of their level 3 course or during their first year on the diploma. Moreover, they had been motivated by the entry requirements associated with the occupations they hoped to follow. In this respect, one participant observed that ‘if I want to go for that job, I need a degree’. Another argued that in order ‘to get as high up as you can, you need to go to university’.

**11. Key messages**

Having explored intervention ideas, discussions with interviewees and focus group participants turned to the key messages that should be communicated to the recipients of these initiatives.

***The industry is for everyone***

For one of the tutors interviewed there was a need to ‘challenge’ the popular view of ‘who works on building sites’ and to emphasis that ‘this industry is for everyone’. Moreover, the ‘idea that it is just people working on scaffolding and putting things together’ needed to be dispelled, with the message sent out that ‘there are all these other skill sets required’. One way of encapsulating this, it was suggested, would be to move away from the tendency to ‘always show people in hard hats’ and on building sites.

***You can succeed***

Meanwhile, a key message identified by one of the employers was that those from under-represented groups could succeed in the sector. In particular, there was a need to ‘make it plain that a woman who enters the industry at a junior level can progress’. Substantiating this point, reference was made to a one woman ‘who started in an admin role’ with their company and was ‘now the senior quantity surveyor and manages two factories.’ Similarly, in advocating the value of profiling those from under-represented backgrounds who had been successful in the profession, one of the future leaders talked about a woman who had started their training at the same time as they had, and who was now helping to promote the sector, including by appearing on television news.

***A choice not a last resort***

Amongst the other messages advocated by future leaders was that ‘professional construction jobs are not limited to those who are clever’, and that those who do not gain high grades in school should not assume that their options have been narrowed to ‘only working in tools’. Professional construction should, it was added, be presented to young people as ‘a choice, not a last resort’ option. There was also a need to ‘separate professional construction from trades’, and communicate that ‘professional construction is more rewarding then you think’, that there are plenty of opportunities for [career] progression within the sector, and the chance to ‘work abroad if you want to’, as well as to become self-employed.

***Well-paid jobs out there***

The same group also argued that young people should be informed that there is the ‘potential to earn just as much [in professional construction] as the more widely recognised building trades.’ Moreover, the message needs to be communicated that there are ‘plenty [of professional construction] jobs on the market’. This last point was confirmed by one of the managers who described their company as being ‘very busy’, whilst also acknowledging that the firm faced a staff shortage, especially at ‘supervisory level’.

***You are not going be in the same office all the time***

The future leaders surveyed also suggested the need to communicate the varied nature of the work associated professional construction roles. Being a ‘site-based professional’, one focus group membered observed, means ‘you are not going be in the same office all the time’. Currently, this participant added, I am ‘in the office one day a week, here [at college] one day, and at a different site’ on another day. Moreover, ‘every time you finish a project, you get a new project and it is starting again.’

***Amazing projects***

The reward of seeing a project come to fruition was discussed by other participants, whilst it was also noted that ‘no one project is the same’ and, it was added, some are ‘amazing projects’. Agreeing with these observations, another member of the same group talked about their desire to go into professional construction because they ‘didn’t want to have a job’ that involved the routine of ‘clocking in’. Professional construction jobs, it was added, are ‘not mundane’.

***So many different roles you can do***

Other important messages identified by future leaders included correcting the imagine that construction is just about ‘being on site’. Rather, that it also encompasses office work and ‘behind the scenes stuff’. Linked to this, and echoing a suggestion made by one of the lecturers, was the need to communicate the variety of roles available. Moreover, with ‘so many different roles you can do, anyone’, it was argued, ‘can go into construction. They will find something that suits their skills set. There is a role in construction you can find.’ In addition, it was argued that young people should be informed of the different route-ways into the sector. Schools ‘try to push you down the uni route’ but there is also the option of ‘going into an apprenticeship because learning the practical, people skills’, as well as technical aspects, is important.

***‘It’s about more than bricklaying and painting!’***

A number of similar messages were identified by the students surveyed. What people tend to see of the sector when encountering a building site is, it was observed, ‘actually the small bit’. Construction, and professional construction in particular, is ‘more than bricklayers and painters.’ People need to be made aware of the breadth. Young people in particular, it was argued, should be informed that the sector is ‘not as scary or as hard as they think it is’ and ‘not as boring as it might initially come across’.

***A dynamic sector***

In addition, student participants noted that you can ‘get good money in these professional roles’, and that the nature of the profession means that you are ‘not always stuck in one place every day of the week’, instead, you ‘can move to different locations’ with different projects. Moreover, participants pointed out that the sector is constantly evolving. Illustrating this, reference was made the development of the *Building Information Model* that enables ‘whole projects’ to be stored and accessed on an ‘i-cloud for the industry’.

***You can have an impact on something people see***

The same participants also emphasised the opportunities that working in professional construction provided for seeing a project develop from its start to its completion. ‘All our roles’, it was observed, mean that we are ‘working on a project before a brick is laid’. Moreover, ‘you have an impact on something people see’. Indeed, for some of these young people one of the key drivers for wanting to join the profession was that through their work they could say ‘I have contributed to making our society better!’

**The messengers**

The two women in the same student group, both of whom were form BME backgrounds, acknowledged that one of their motivations for entering the sector was a desire to change how construction is portrayed and who it appeals to. In this respect, Morton et. al. (n.d.) discuss the ‘value of female role models’ and how ‘the visibility of women working in the sector can reinforce a positive viewpoint’. Similarly, an RICS (2016, 10) report observed how ‘diverse role models are likely to encourage retention and recruitment of individuals from similar backgrounds’.

The idea that the young people who took part in this particular focus group could help to promote the sector was also acknowledged by their tutor, who was one of the industry professionals interviewed. In this regard, reference was made to their intension to keep in contact with these student in the hope that, once they had completed their advanced-level courses and progressed to university, they could come back to the college and inspire others, including those from under-represented groups who were about to embark on their training and were in the process of considering careers in the sector.

**Conclusions**

Whilst considered ‘fundamental’ to the UK economy, the construction sector faces a significant skills shortage, which, for a combination of internal reasons - including possessing an aging workforce - and various external forces, appears to becoming more acute. Against this backdrop, there is a real and recognised need to encourage more young people into industry. This includes widening the appeal of a sector that has traditionally attracted few women and those with disabilities, as well as those from disadvantaged backgrounds and ethnic minority groups (Dele-Ajayi. 2017).

Commissioned by the Bridge Project Steering Group and based on a combination of desk research and a qualitative survey of a sample of sector employers, industry professionals, future leaders and advanced-level students, this study has sought to update the review conducted by Dele-Ajayi in 2017, and to responds to the request for a ‘more empirical understanding of current issues under-represented groups face’ (Dele-Ajayi, 2017). The study’s primary research findings underpin many of the recruitment challenges discussed in published sources and associated with: popular perceptions of the sector; limited awareness of professional construction; and poor knowledge of careers in the industry. However, the evidence provided by those interviewed and surveyed also affords insights into current practices that are having a positive impact and should be more widely adopted, including the support and guidance offered on at least some advanced and higher-level training programmes.

Moreover, the same sources were able to suggest additional measures that have the potential to widen awareness of - and access to - the sector. These include: the provision of outreach programmes that are targeted and progressive in nature; of working with careers professionals in schools and colleges to ensure they are able to provide accurate and up-to-date information, advice and guidance on the sector and the opportunities it affords; and of recognising and working with those from under-represented groups who have opted to train and work in construction, and who can act as role models and ambassadors for the sector and demonstrate that it ‘could also be a career for me’. Arguably, the need for progress of a transformational rather than incremental nature - given the scale of the sector’s recruitment challenges - underpins the importance of responding to these insights and suggestions.

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1. The site they may be referring to is Prospects (2019). *Property and construction. Job Profiles,* <https://www.prospects.ac.uk/job-profiles/browse-sector/property-and-construction>. This includes 26 job profiles, and for each details ‘responsibilities, salary, working hours, what to expect, qualifications, skills, work experience, employers’, and ‘jobs currently advertised’, as well as information on ‘professional development and career prospects’, and links to relevant professional (chartered) bodies. [↑](#footnote-ref-1)