



NHBC Foundation: Improving recruitment of young people into home building

A literature review

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1 Introduction

1.1 The project brief

In July 2013, the Government in partnership with the Construction Leadership Council launched an industrial strategy for the construction industry: 'Construction 2025 (HM Government, 2013a). As part of a SWOT (Strengths, weaknesses, opportunities and threats) analysis in the document, the strategy identified 'a lack of career attraction' as a key threat to the industry: '*due to perceived low image, lack of gender diversity, low pay and job security due to the cyclical nature of demand for construction*'. This analysis also highlighted that:

There is a pressing need to properly inform young people and their influencers (parents and teachers), about the rewards offered by a career in construction'
and that:

'A central engagement with the public must begin at a young age (from 11–12, before GCSE curriculum choices are made) and then be consistently applied right through to further and higher education level (HM Government, 2013a).

The strategy's action plan calls on 'construction umbrella bodies' to develop a co-ordinated approach to engaging young people and the National House Building Council (NHBC), and Home Builders Federation, are now collaborating – in co-operation with colleagues from the wider construction sector – to begin promoting careers in home building.

The overall project has four main objectives, three of which are covered in this literature review, with the main research objectives related to this review being:

1. What are the key barriers to young people considering a career in house building?
2. What approaches are likely to be the most effective in raising young people's awareness and understanding of jobs and career opportunities in house building?
3. What recruitment and human resource development (HRD) practices are most effective in recruiting and retaining young people in home building?

The methodology for the literature review is a review of policy and practice that relates to home building and construction. The review is based on database searches supplemented by the evidence gathered during stakeholder interviews and through requests made to the wider careers and home building sectors. In order to fully answer the main research questions, the literature mapping the barriers faced by young people to working within the sector was explored. Based on the review a set of criteria for analysing and categorising industry sector initiatives will also be developed. The criteria will be presented as a separate compendium of opportunities. A more detailed explanation of this methodology is presented in appendix 1.

1.2 The policy context

The construction sector, and in particular the home building sector have been gaining considerable policy and research interest for over a decade. There have been a number of political, economic, social, technological, legal and environmental drivers to this interest as identified by NHBC *et al.* (2010) which listed a number of most frequently identified drivers impacting on the home building sector as: zero carbon, legislation and regulation, energy infrastructure, land availability, use and planning, building methods and materials, design approaches, workforce availability, products and technology, the economy and finance and consumer attitudes. Similarly, the Witty Review (2013) identified that the impact of high youth unemployment, skills shortages, housing shortages, the green agenda and the use of technology in construction and the importance of architecture,

building/built environment and planning to research and innovation in higher education were all important to the future economy.

The main issue for consumers is that the UK home building sector has been consistently building less houses than are needed by the population. The Barking review in 2004, for example, identified that the UK needed to build 245,000 new homes per year. The HM Government (2013b) housing strategy argued the need to build 232,000 new homes per year and stated that house building was crucial for social mobility, health and wellbeing. Since 2004, there has been a shortfall of between approximately 100,000 to 150,000 homes a year with only 89,010 being built in 2012 (Griffith and Jefferys, 2013). More recently, the Cross Parliamentary review of construction and youth unemployment highlighted the unacceptably high level of youth unemployment and how the construction sector could help to alleviate this (Raynsford and Best, 2014). This research indicated that there was no simple solution to the problem of reducing unemployment and encouraging young people into the sector, and that instead, a variety of approaches are needed. Similarly the CIOB (2014) 'Educating the Educators' report explored the role of advice and guidance in encouraging young people to work in the sector and highlighted that advice currently given by teachers, careers advisers and their parents is outdated and ill-informed, thus making it difficult to encourage young people into the sector.

2 The Home Building and Construction Sector: workforce and skills shortages

2.1 Introduction

The construction and home building sector is vital to the UK economy, with construction being one of the largest sectors, contributing around £90 billion to the UK economy (or 6.7% in value added). It is comprised of over 280,000 businesses, providing almost 10% of total UK employment (DBIS, 2013). Recent positive growth (1.3% annual growth) in the construction sector has been largely driven by growth in new home building which has increased 10.4% (£2.1 billion) year on year with a small growth contribution from non-housing repair and maintenance of 0.7% (Office for National statistics, 2014).

2.2 Defining terms

ConstructionSkills (2010) defined the coverage of the construction sector as,

the creation of the built environment. It is everything around you that is man-made from football stadiums to roads. It covers all stages of the construction process, including creating the initial ideas and designs, actually building the structure and ensuring that everything continues to work smoothly after it is complete. The sector covers: infrastructure – roads and rail public and private housing public non-housing - schools industrial commercial – offices and Retail Repair and maintenance.

DBIS (2013) also defined the construction sector as: (i) construction contracting industry; (ii) provision of construction related professional services; and (iii) construction related products and materials, sub-sectors, including civil engineering, engineering manufacturing and house building.

The home building sector is a branch of the construction sector but is less well defined, containing a number of allied professions that young people would not necessarily identify as home building. Apart from the construction sector as a whole, this literature review has focussed on the following 15 areas that make up the homebuilding footprint:

1. Planning: Securing planning permission for new homes and making sure homes meet national and local planning requirements.
2. Architecture: Creating the overall design and aesthetic qualities of homes
3. Technical design: Designing homes to meet current standards and developing expertise to meet new requirements and challenges on the horizon
4. Sustainability specialists: Ensuring that new homes take account of the environment
5. Services specialists: Ensuring that heating, ventilation and controls systems are properly designed and installed
6. Project management and procurement: Logistics, supply chain management, financial control, partnerships and team working
7. Site management: People management, quality control
8. Practical construction jobs: Including trades such as bricklaying, carpentry, electrical, plumbing
9. Commercial management IT and HR: Wide range of roles to ensure that home building companies and their projects are managed effectively, competitively and safely
10. Interior design: Working to produce interiors that delight customers

11. Quality control: Inspection and testing of homes, and maintenance of the right standards
12. Office support: Providing a range of administrative and secretarial support
13. Sales and Marketing: Devising and implementing new home sales and marketing strategies
14. Customer care: Providing after-sales support for home purchasers and tenants
15. Land buying and sale: Buying and selling the right land at the right price.

Initial searches of the literature revealed that there was a great deal of research considering issues related to young people in construction, but little research looking specifically at home building. Therefore the literature review has been organised into three interlinked sections. The first focusses on material that considers in general terms, young people's career related decision making and how they are influenced from both theoretical and practical research perspectives. The second section considers who influences and enables young people's decision making and the implications of this for home building and the third section considers the barriers and enablers to young people joining the construction sector and home building footprint. These three sections should all be considered in light of the sector skills gaps and shortages.

2.3 Skills gaps and shortages

Prior to the recession, Clarke and Herrmann (2007) looked at shortages in the home building sector based on a survey of House Building Federation members and firms identified in the social housing magazine. The article concluded that the housing sector experienced more critical recruitment and skills shortages than the wider construction sector. In particular for hard to fill vacancies, the house building sector had particular problems recruiting bricklayers, managers and senior officials, carpenters and joiners, supervisors and professionals.

According to UKCES (2012a) about one fifth of all vacancies in the wider construction sector are persistent and hard to fill because employers cannot recruit staff with the right skills, qualifications and experience. UKCES (2012b) reported that over half (53%) of employers in the construction contracting sector reported skills shortages in professional or associate professional occupations and some 28% reported skills shortages in trade occupations.

The Chartered Institute of Building (CIOB) (2013) highlighted that respondents to their 2013 survey reported that 82% of construction professionals noted the lack of skilled domestic construction personnel, which was an increase of 5% from the previous report in 2011. They reported skills shortages particularly in the areas of skilled crafts and trades and semi-skilled workers. They argued that a lack of skills will hinder the future economic recovery and that a deepening recession could force skilled workers out of the sector and into other occupations.

CITB (2013) has identified a range of future skills needs which fall into four main categories; energy, water, materials and waste, which are influenced by the need for a greener economy, industry legislation and customer demand. Areas for growth include:

- zero-carbon (residential and non-residential) construction;
- low carbon refurbishment of existing building stock;
- low energy building design and construction;
- waste management;
- mitigating Flood Risks; and
- lean manufacturing processes.

CIOB (2013) highlighted that 44% of employer respondents felt that the construction workforce were not equipped with the right skills mix to take forward the green deawhich is the Government's flagship policy. 66% of respondents see a real need for training in order to build a green-focused workforce.

Gardiner and Wilson (2012) mapped skills achievements by young people in different sectors to the number of jobs in equivalent occupations in the UK. For the construction sector overall there were 1,150,872 vacancies compared to 123,370 young people with skills achievements giving a ratio of 9.3 jobs per qualified young people. For the Building services engineering (electro-technical, plumbing, etc.) sector there were 511,765 jobs with only 39,740 young people with skills in this sector which is a ratio of 12.9 jobs to each skilled young person. For marketing and sales, they found that overall there were 289,601 vacancies with only 280 young people having these skills.

Further analysis of ratios of young people with skills to new vacancies revealed that there was a North-South divide in shortages with the highest ratios for job vacancies to skills achievement in construction being in London (13.7:1), The South East (9.2:1) and the South West (8.0:1). In building services engineering, the shortages were more evenly distributed, but still the greatest shortages were in London (with 8.5 jobs per skilled young person), The South West (8.3:1), The South East (7.5:1) and Yorkshire and Humberside (7.5:1). However, it must be noted that all regions had shortages of young people with skills to vacancies with England having 273,969 vacancies compared 123,370 people with skills achievements (ratio 6.2 for 16 to 18 year olds) and for building services engineering 71,789 vacancies compared to 39,740 people with skills (ratio 6.8 for 16 to 18 year olds). For marketing and sales the vacancies to young people aged 16 to 18 with skills was most pronounced, for London (3956.6 to 1), the East of England (3024.9 to 1) and Yorkshire and Humberside (2917.5 to 1) all having the highest shortages.

Looking specifically at home building, the Home Builders Skills Report (NHBC *et al.* 2013) identified major concerns about skills shortages in the sector as a result of the impact of the recession further constrained by people leaving the profession and an ageing workforce. They found that one fifth of employers surveyed were struggling with shortages: 87% believed that the industry will have problems in the future, and of those, 45% believed that the sector returning to growth will have a major impact on skills shortages.

In particular the research found that large and medium sized firms are experiencing shortages as follows:

- 57% are having difficulty finding suitably qualified site managers, quantity surveyors and site operatives.
- 43% of sub-contractors say they can't hire good workers now.
- Product manufacturers are having difficulty finding suitable graduate trainees (60%) and technical advisory staff (47%).
- Almost half of all building control officers report difficulties recruiting staff.
- 53% of construction managers expect to have difficulty finding suitable sub-contract labour.
- Sub-contractors also think it will be hard to find labour, with 48% stating this as a probable problem area over the next few years.

The report raised concerns about knowledge and skills for the green economy in home building, particularly a dearth of skills and knowledge relating to the design and future performance requirements of new home builds. In addition, the report raised the issue of employers believing they would struggle to attract and retain good quality people into the industry. The recession has discouraged employers from recruiting apprenticeships and graduates into the sector, falling 30% from 2010 to 2012. This led to an over-supply of young people, as employers did not have enough

apprenticeship vacancies to recruit them.. Interestingly, employers had a very positive view of the calibre of young people they recruit, with 27% of employers believing they were very good and 43% believing they were good in relation to skill levels, attitudes and work readiness. The report raised concerns about retaining staff due to poor career and skills development opportunities for staff beyond NVQ level three.

2.4 Summary

This section has highlighted that although the construction sector is clearly defined, the home building sector is less well defined containing some elements of the construction sector as well as including jobs from other sectors such as business, customer service, retail and design. It has also highlighted that skill shortages in the sector have been a long term issue that has grown in importance due to the shortages in housing and was exasperated by the recession and the impact of people leaving the sector. It has also highlighted that there is an acute shortage of young people with the necessary skills to plug the shortages in the sector. This is further complicated by a lack of knowledge within the sector about future skills needs.

3 The influences on young people's choices and implications for homebuilding

3.1 Introduction

The literature review has highlighted a number of skills challenges facing the construction and home building sector. This section will explore the theory and practice of how young people make career and education choices, and specifically choices in construction and home building and explore the implications for home building.

3.2 How young people make careers and education decisions

Career theory and psychology of vocational reasoning

How young people make decisions about their future is a contested area of debate among academics and practitioners. Theories of career development see the individual either as the key agent (the Master) who shapes their destination (known as instrumental rationality or differentialism, Holland, 1959), or they see the individual as a pawn whose choices and actions are largely shaped by external factors (the structuralist approach, Roberts, 1977). These two theoretical approaches are seen as existing at either end of a continuum, however several middle range theories exist at various points along that continuum.

Instrumental rationality is a description of a decision making model that sees decision making as a rational process of gathering information about ones-self (expressed as human capital) and ones possibilities, weighing up the costs and benefits of alternative courses of action and then planning a course of actions to match ones-self to an appropriate career.

The structuralist approach sees decisions made mainly as a consequence of external forces beyond the control of the individual. Wright (2005) summarised the approach by describing those forces that can be; elements of an individuals' background (such as class, ethnicity, gender), the influence of other individuals over the decision-making process (e.g. parents and teachers), the nature of education and training provision (as influenced by government educational policies and the nature of learning providers), and economic conditions (e.g. labour market opportunities). They also tend to down play the element of rationality in decision making, emphasising instead emotional and psychological factors as well as preconceptions and assumptions arising out of the external factors listed above.

Hybrid models have been developed that compromise between the two approaches outlined above. These take these rather over-simplified approaches and refine and reinterpret them to move the discussion to a middle ground populated by social learning or career learning theory (emphasising the role that learning plays), developmentalism (Super, 1980) (that changes in the life course affect decision making) and *planned happenstance* (the role that chance and change play in choice (Mitchell *et al.*, 1999).

Looking specifically at education decision making Mellors-Bourne *et al.* (2014) reviewed literature looking at young people's undergraduate decision making process. Whilst recognising that the process was multifaceted and liable to change over time they identified two overriding approaches to understanding the decision making process, the rational approach (similar to differentialism) and the behaviour economics approach. The rational approach assumes that decision making is a rational linear approach, for example, Al-Fattal (2010) drew on Kotler (1999) to describe the process of educational choice-making as comprising five steps:

- 1) needs and motives

- 2) information gathering
- 3) evaluating alternatives
- 4) decision
- 5) post- choice evaluation.

Under the rational approach young people rely heavily on information to make judgements on educational choices such as employment and career prospects, reputation/quality of institution or course, location, facilities, cost of education and ease of application process etc. However, Mellors-Bourne *et al.* (2014) highlighted that recently the rational decision making model has been criticised, citing the evidence of Diamond *et al.* (2012). Diamond *et al.* (2012) argues that young people's decision making is influenced by conscious and unconscious decision-making and that young people struggle to find and organise information, therefore leading them to make choices based on what feels right and not necessarily the most rational choice.

From a psychological perspective, it has long been established that vocational reasoning is related to cognitive development (Nelson, 1978). Young people's views and reasoning about occupations reflect their changing modes of understanding the world as they grow older, begin to assert their own identity and reflect on their place in the world (Gottfredson, 2002). Howard and Walsh (2010) simplified this process into three approaches to cognitive reasoning: Association, Sequence and Interaction. They identified six levels of interaction with career development:

- Level 1: Pure Association: Job/career simply exists; offers an unelaborated list of statements about the job/career when asked to describe career choice and attainment.
- Level 2: Magical Connection: Simple method of career choice and attainment; no mechanism identified; career choice and attainment merely happen.
- Level 3: External Activities: Simple process of learning about jobs, choosing based on interests. Description of external, observable, and learnable skills and/or activities that lead to attaining a job/career.
- Level 4: Internal Processes and Capabilities: Choice is a process of matching self to jobs/careers. Includes job activities, job/workplace characteristics, personal interests and abilities, considered in an additive manner. Attainment requires learning skills and having the ability to do the work.
- Level 5: Interaction: Choice requires the consideration of interaction of personal attributes and environmental influences and has many possible outcomes. Attainment involves dynamic interaction of multiple factors at the personal, relational, and immediate environmental factors.
- Level 6: Systemic Interaction: Choice requires the consideration of interaction of personal attributes, environmental influences, and systemic level factors (e.g. employment trends). Attainment involves dynamic interactions of factors at the personal, relational, environmental, and societal levels (e.g. emerging occupations such as green jobs).

According to Portfeli *et al.* (2008) the association approach is characterised by children using fantasy to think about career choices. This way they imagine themselves in different professional roles and environments. In this approach, however, young people engage in little self-reflection and have not developed the self-awareness which is needed for preferences, abilities and opportunities to be incorporated in their narratives. Children make decisions on their future careers by an association with heroes, role models or other imaginary combinations (e.g. princess, astronaut).

In the Sequence approach, children are able to identify an agent (i.e. event, activity, situation) that guides them to career choice and attainment. Children who function in the sequence approach understand how career choice and career attainment are two separate processes and have the ability to explain how the two are related. Children in this level are able to describe how they learn about jobs, how they choose the job that they like and are also able to describe the activities which lead to the attainment of a job or career.

Howard and Walsh (2010) suggest that the interaction approach is characterised by young people understanding that choosing a job or career is a process which involves strong interaction of self-knowledge and awareness of personal attributes (i.e. interests, skills, values) and environmental opportunities (i.e. availability of job/career, available opportunities to develop skills, current job market) and consequently they are aware that the process of attaining a career is a strong interaction between personal characteristics and job/career characteristics.

Implications for home building

This brief review of the theory of career and education choice and psychological theory highlights that research in this area is heavily contested. However, what is clear is that there are a myriad of potential impacts on choices made by young people and that young people develop ideas about potential careers over a period of time and it is closely linked to their cognitive development. In addition, often the decisions are not made on purely rational basis, but instead based on their own experience and the experience of people and the environment around them. The main implications for home building are the need to inform young people about their options early in order to make the options more apparent and the need to explore ways of influencing the many external influences on young people.

3.3 Young people's views on careers and employers

Young people recognise that certain subjects are important ones to study and that they are needed in adult life regardless of whether they enjoy them. Correlations between ease, enjoyment and being good at the subject are not straightforward. In the case of science for example, 80% of young people in a survey at Key Stage 3 (Hutchinson and Bentley, 2010) said they thought they were good at it, 74% said it was enjoyable while only 54% said it was easy – so the study of science appears to be popular in spite of its perceived difficulty. On the other hand, while only 52% think maths is easy, and only 50% think it is enjoyable, 77% think that they are good at it. Students were also asked to say whether they thought STEM subjects were important for adult life, and needed to help get a good job in the future. Maths was most likely to be rated as most important and needed for a good job with more than nine in ten saying that this was the case. Science was also rated highly in these terms with 86% agreeing it was important, and 72% that it was needed for a good job.

There have been a number of studies looking at young people's career and job preferences, particularly from a gender perspective. Millward *et al.* (2006), for example, looked at the factors impacting young people's careers choices and found that the most important factors for boys and girls were levels of pay (85% boys, 43% girls); working hours (81% and 79%); whether other people look up to and respect the job (67%, 39%); opinions of teachers (16% 21%); opinions of friends (52% 57%); length of training, (47%, 59%); opinions of parents (70%, 70%). The research also found a high level of gender stereotyping for specific careers with both genders seeing female' jobs (e.g. nursery nursing, hairdressing, care assistants) or 'male' jobs (e.g. mechanics, plumbing, construction etc). The report concluded that although gender stereotypes in career choice do exist and are firmly embedded they can be broken.

Mann *et al.* (2013) surveyed 11,759 young people aged between 13 and 18 to ascertain whether their career aspirations correlated with projected future labour market demand. They found that

although career aspirations changed over time and essentially became more realistic, there was no correlation between young people’s aspirations and projected labour market demand. Furthermore the findings suggested that young people have little understanding of the breadth of opportunities offered in the labour market leading them to have unrealistic expectations.

Batterham and Levesley (2011) explored 1,620 young people aged between 15 and 19, and 1,693 parents’ views of vocational qualifications. They found that young people based their subject choices on subjects they were interested in (74%), what they were good at (59%), and about 1/3 choose based on potential careers the subject would open up to them and 61% had decided on the type of job or career they wanted compared to 67% of students who had chosen vocational routes. Again, parents were the most popular source of information, followed by school careers advisers (67%) and teachers/tutors (60%).

Construction Skills (2007) found that parents believed that the main influences on young peoples’ career choice were quality of life, opportunity for personal fulfillment, opportunities for career progression, opportunity to help others, opportunity to contribute to the community/environment and salary. The report concluded that although gender stereotypes in career choice do exist, and are firmly embedded, they can be broken down by information about the details of work, pay and lifestyles being made more readily available to young people.

Specifically looking at graduates in the construction and engineering sector, in Australia Sedighi and Loosemore (2012) found that undergraduates from these sectors consider the following characteristics important from an employer:

Characteristics from a good employer	Percentage of students
Good quality working relationships	62%
Being able to learn on the job	55%
A workplace that is passionate about work	51%
A relaxed, fun and social workplace	43%
Seeing and understanding the purpose of tasks	42%
Recognition and encouragement of my contribution	42%
A workplace with training programmes	40%
Training in how to use new technologies	40%
Working with people who have the same values and approach to work	39%
Flexible hours	38%

They also compared the perceptions of men and women and found that women had a higher regard for the importance of workplace leadership, safety and emotional stability, learning and

development opportunities and being involved with the local community than men. Interestingly they also found that salary became more important to both men and women as they moved closer to graduating. CABE (2008) suggested a need for research into what exactly is putting young people off choosing courses and careers in the built environment and targeted campaigns to remedy this, coordinating the marketing of HE and FE sectors, and ensuring their product is appealing and running specific initiatives to increase take up, for example targeting BME, women and people with disabilities.

3.4 Influences on young people's choices

A great deal of literature exists on the factors that influence young people's decision making processes both in education and their ultimate career choices. Research has explored factors that are intrinsic and personal, for example Alloway (2004) indicated that young people who not only enjoy particular subjects, but who also perform well in them are more likely to use those subjects to set their parameters for the kinds of careers to which they could reasonably aspire. Alloway noted that young people bring different mindsets to the decision-making process, and that their decisions can often fluctuate over time, even amongst students who initially might appear very decided about their choices.

A literature review by McCrone *et al.* (2005) highlighted that young people's views are influenced by a range of factors embedded in shared societal experiences such as prevailing economic conditions, culture, class and access to social networks. The review looked at choices at key stage 3 and identified six factors that influence the process of decision-making. These are: the intrinsic value attached to certain subjects (i.e. enjoyment of the subject); the extrinsic value (i.e. their usefulness to future careers); pupil self-perception of their ability at any particular subject; careers education and guidance; home background (though the literature is divided on just how much influence parents may exercise); and teachers. Similarly, Hutchinson *et al.* (2011) highlighted the strong influence on post-16 learning or earning routes from a variety of sources including their observations of the world around them, the media, their school, and from specific people, in particular parents and peers. Therefore the following section will look at the main influences on young people's decision making and the impact for choices relating to home building.

The influence of family and peers on young people's choices

The family is critical in shaping the views which young people develop in relation to their future learning and careers. The Work Foundation (Reid and Cominetti, 2013), for example, found that the most important sources of information for young people were parents, followed by teachers, careers websites, the schools careers advice service, other family and social media. In addition, when asked to rate the value of these sources, most young people valued informal sources such as family and friends over more formal sources such as school careers advice. This mirrors the findings of a number of other studies (Marson-Smith *et al.*, 2009; Blenkinsop *et al.*, 2006; McCrone *et al.*, 2005). The British Youth Council *et al.* (2009) also found that their most powerful influences were parents, mentioned by 65.3% of young people; friends by 59.9%; classroom teachers by 58.2% and school careers advice services by 57.7%.

The Deforges and Abouchaar (2003) review of literature also found that parents were the most often cited influence on career decisions. They also found that the extent and form of parental influence is strongly influenced by family social class, maternal level of education, material deprivation, maternal psycho-social health and single parent status. Blenkinsop *et al.* (2006) pointed out that parent's influence on adolescent career decision making can be deliberate, implicit or unplanned. This can be deliberate when parents are trying to motivate or encourage their children towards a certain profession or get information and contacts on their behalf. It can be implicit through young people absorbing information and values from their families and it can be unplanned when for example a family member is made redundant. Lankard (1995) highlighted that children of

parents who have been to university are most likely to choose to attend university; those who have lower qualifications will have children who are more likely to leave school earlier, and with lower levels of attainment. Similarly parental perceptions are important in that they directly influence attitudes and aspirations.

Atherton *et al.* (2009) in a study of 610 year 7 students in 27 different schools in three different areas of the country found that parents influenced young people's subject choice and subsequent career choice and that parents' support and backing in their choices was seen as pivotal. Other important influences include teachers and older siblings, however young people were less willing to recognize the importance of the media. The students recognized the need for information, advice and guidance to learn about jobs and options. However, the students lacked knowledge about progression routes and although 85% had strong ideas about what they wanted to do as a career they had unrealistic ambitions compared to the number of people working in these careers. In addition, 75% of students stated they wanted to go to University and that doing this would help them to achieve their career goals and was an important measure of how they perceived future success. In addition, within this there was a higher regard for academic than vocational routes. In particular, students had relatively low regard for manual occupations involving vocational training routes such as plumber or builder, which were hardly mentioned by students as their preferred occupation. However, if students had knowledge about vocational routes through family members or information at school they are more likely to see them as an option. The students with higher SATS scores preferred the academic route whereas those with the lowest scores were more likely to consider vocational routes. When asked about their preferred career the most popular response was Performing Arts (Singer / Dancer / Actor) (72), followed by professional sports player (49). However, of the careers relating to homebuilding 13 said IT, 3 architect, 3 interior designer, in addition one person said joiner, carpenter, plumber.

In a study for Careers Scotland (2004) most pupils consulted knew someone who worked in their preferred careers, which included other family members and family friends although only relatively small numbers mentioned their parents. In addition, City and Guilds (2012) suggests that parental influence of young peoples' choices diminishes over time with 37% of 16-18 year olds believing parents were their greatest influence, although this was still the highest influence on the young people.

Implications for the home building sector

The Construction Skills (2007) positive influence report also found that parents believed they were the most important influence on young people's career choice. The research also explored parents' attitudes to their children taking a career in the construction and built environment sector. The research found that 40% of parents said they would be pleased and 50% of parents would be neither pleased nor displeased. Only 8% said they would be displeased if they chose the sector.

The research evidence is clear that parents are the most important source of advice for young people. Therefore strategies to promote home building careers to young people must also focus on raising awareness with parents. A particular barrier is that often parents' careers influences impact on young people's choices making it difficult to introduce alternative opportunities.

The influence of teachers

The extent to which institutions and teachers can influence young people's vocational choice is uncertain. There is some evidence to suggest that schools and subject teachers play an important role in young people's career choice. Foskett *et al.* (2004) indicated that teachers have a strong influence on young people's career choices, whether knowingly or implied by giving their cultural perspectives to young people. However, they also found that teachers were poorly equipped to give advice, not having up to date information, but seeing their role as signposting young people to

where they can find advice and information. Hutchinson *et al.* (2009) and Hutchinson and Bentley (2011) highlight that children often seek advice and career information from subject based teachers.

More recently research by Freshminds (2014) for the Association of Colleges based on a survey of 2,001 pupils aged 11 to 16 in schools found that teachers (57%) were the second most popular source of careers advice, with parents first on 70%. Professional careers advisers only rated at 27%, with friends (48%) and relatives (42%) both rating higher. Freshminds research also found that 97% of students had a clear idea of what they wanted to do when they left school with going to university (57%) or college (53%) rating the highest, and with just 14% expected to do an apprenticeship and 9% expected to go straight into a job.

In addition, a similar concern has been raised in research by the Association of Colleges in 2012 which revealed that 82% of teachers believed they did not have the knowledge to inform young people's post 16 choices and 44% of teachers admitted to having offered ill-informed careers advice to students. In addition, research by CITB (2014) looking at teachers' views of the construction sector revealed that teachers were particularly keen to be provided with more information from the industry. Foskett *at al.* (2004) also noted that teachers appear to be poorly equipped to give advice about careers because they do not have the time to update resources and information. Instead, they see themselves as sign posters explaining to young people how they can get information from other staff who are more knowledgeable in that area. Therefore the correctness and reliability of teachers' knowledge is unknown. In addition Blenkinsop (2006) found evidence that some teachers lacked impartiality when giving advice, instead encouraging young people to go in to the sixth form and not making the full range of options available for young people to make informed decisions.

Implications for the home building sector

While there is some evidence that pupils respond positively to teachers' knowledge and information on careers, this is not well researched and there is mixed evidence on the importance teachers have in young peoples' decision making. However, there is clear evidence that some teachers lack awareness about alternative progression opportunities other than 'A' levels and sixth form and would value more information being provided to them. There is some limited evidence that teachers lack knowledge about the construction sector and hold some negative views, however there is no research specifically looking at teachers' attitudes to home building. Construction Youth Trust (2008) highlighted the need for the creation of imaginative events and methods to inform the influencers of young people (teachers, careers advisors and parents) about construction and the creation of a web-based resource centre for teachers and students, including teaching materials. Fun activities for primary school children encouraging them to think about a career in construction and employers being involved in subject specific courses for secondary schools would all help to increase students and teachers engagement with the sector.

Influence of careers advisers

Evidence on the impact of career education and guidance (CEG) on young people is partial, however there is a body of research that supports the claim that there is a clear positive link between career guidance and a variety of immediate outcomes, including attitudinal and motivational changes, enhancement of career decision-making and career planning skills Whiston *et al.*, 2003 and Brown and Ryan Kane, 2000.

Bowes *et al.* (2005) undertook a systematic review of research into the impact of CEG during KS3 and KS4 on young people's transitions, and concluded that good quality interventions can have an impact on the success of subsequent transitions. However, the strength of this impact is mediated by a number of factors that include the nature and type of CEG intervention, the timing of interventions, and the extent to which interventions are tailored to meet the needs of the individual. This impact can also be seen at an organisational level, for example Blenkinsop *et al.*

(2006) make a link between schools in which effective support mechanisms were in place and the schools in which young people appeared to have made the most effective decisions: *'that is they were making rational and thought through decisions, were less likely to change their mind and tended to remain happy with their choices six months later'*. Blenkinsop concluded that where schools and colleges offer careers education, information, advice and guidance it is well received by those learners who access it, and can make a positive contribution to their development and career learning skills.

Young people appear to value some forms of careers education or advice and guidance more than others. Wright (2005) summarised a number of studies and reported that students they surveyed placed a greater premium on experiential information (visits to institutions, work experience, face to face contact with outside visitors) rather than paper-based forms of information. Maychell *et al.* (1998) also found that external advice was valued; students perceived visiting professional careers advisers as the most useful source of career advice and guidance (partly because they were seen as more independent than subject or careers teachers). Morris (2001) found that school careers advisers do not tend to make available the full range of post 16 options to young people available and are not impartial by promoting the sixth form above college and other vocational options. Chan and Connolly (2006) found similar findings when discussing construction options for young people.

Career guidance for home building and construction

The research evidence highlights that career guidance can have a positive influence on young people's career choices, but there is mixed evidence on how often young people are accessing this advice. However, recent research (Hooley and Watts, 2011, Coffait, 2013. House of Commons Education Committee, 2013, Ofsted, 2013 and Holman, 2014) has highlighted that the quality and level of careers advice in schools has been deteriorating. Ofsted (2013), for example, highlighted that the quality and impartiality of careers advice has been falling under the Coalition Government with four out of five schools not providing adequate advice to young people.

Although there is no research looking specifically at career guidance given to the home building sector, a number of studies have highlighted the lack of knowledge generally about the construction and house building sector to inform young people (Pye and Tait cited in CITB, 2014). Pye and Tait reviewed 745 careers influencers' views (Teachers, careers advisers in school, sixth form and further education). The research revealed that more than eight out of ten advisers believed they did not have enough information to adequately advise young people and schools careers advisers were particularly keen to be provided with more information from the industry. In addition the research revealed:

- 35% of careers advisers believe that construction is an unattractive career opportunity.
- Over 60% of careers advisers in schools offer no information on jobs prospects based on available work.

Construction Skills (2007) highlighted the important role that careers advisers have in informing young people about and supporting them to navigate the construction and built environment sector. In addition, the report saw a positive role for information, advice and guidance (IAG) in challenging negative images and stereotypes about the sector to encourage a more diverse workforce. The Educating the Educator report by CITB (2014) suggested strongly that careers advice to young people needed to be improved to encourage more people into the sector.

Implications for the home building sector

The main implication for home building is that although careers advisers are an obvious source of information for young people, the quality and funding for career guidance in schools has been falling, which is making the possibility of promoting opportunities through careers advisers

problematic. There is also evidence that careers advisers have limited knowledge about the sector and hold outdated views, particularly relating to construction careers. However, there is no research looking specifically at what level of knowledge careers advisers have about the home building footprint.

Influence of employers

A great deal of research (City and Guilds. 2012; Mann, 2012, 2013, UKCES, 2012c, 2013) has focused on the positive role that employers can have in encouraging young people to make careers choices. Mann *et al.* (2013) undertook a survey of 11,759 young people aged 13 to 18 across England about their career aspirations and found that the most useful source of information was school mediated professional contacts (57%) which included, meeting employers, work experience, taster days, attending careers talks. Family and friends rated second with public information such as websites books and media rating at 34%. The OECD (2010) Learning for Jobs report highlighted that young people particularly value information on jobs and careers if obtained in a real workplace and through contacts with working people. Research by the Education and Employment Taskforce and Deloitte (2010) found that two-thirds of young people and teaching staff would value employers coming into school to give talks. Millward *et al.* (2006) found that young people rely heavily on personal experience when informing their choices, whether it be from direct contact through work experience or work shadowing or through talking to family and friends working in a job.

Both schools and employers face barriers in organizing this kind of activity due to time and cost and at a time where the traditional mediator between schools and employers (careers advisers) have been declining in schools (Hooley and Watts, 2011).

Implications for the home building sector

There is clear evidence that young people value information gained directly from employers. This can take the form of meetings, talks, visits to the workplace or work experience. The STEMNET scheme which promotes careers in science, technology, engineering and maths (STEM) provides a good framework to promote careers in home building to young people. STEMNET is a network of employers, schools, and colleges which provides three main programmes to young people:

- STEM Ambassadors: Which is a network of employers that provide young learners with activities and resources and talks to inspire young people into STEM careers;
- STEM Clubs Programme: are extra curricula activities for young people to give advice and inspire young people to think more about STEM careers outside of the usual classroom setting; and
- Schools STEM Advisory Network: which offers, impartial tailored advice and guidance to help schools and colleges access a range of services, resources, activities, toolkits and advice, which supports the curriculum and increases the number of students moving into further STEM education, training and development.

An evaluation of STEMNET by Straw *et al.* (2011) found that both pupils and teachers believed the STEM Ambassadors scheme had a positive influence on young people. In particular this was through increased engagement and interest in STEM, increased knowledge and understanding of STEM, increased awareness of, and enjoyment of, STEM subject options. Although the statutory duty for schools to provide work related learning to young people has now been removed, it would also be useful for employers in the home building sector to explore how they could offer more opportunities for young people. CIPD (2012a) produced a guide and charter to support employers to guarantee that young people gain the most from work experience. It charter called for employers to support young people by:

- tailoring work experience to the young person's needs and circumstances;

- providing them with support, supervision and mentoring;
- managing young people's expectations;
- treating young people as active members of staff;
- introducing them to the structure of working life;
- celebrating their successes;
- relating their experiences and skills to the workplace and providing feedback;
- demonstrating employment options open to them;
- making clear the expectations of the employer; and
- using work experience as part of a wider commitment to recruit young people.

Influence of different sources of information

As already highlighted, young people have a general preference for learning from people they know and from informal sources when finding out about careers (Atherton *et al.* 2009). The students were also asked to rate the usefulness of different sources of information and although all the options were considered useful, the highest regarded were, visits to university (4.5 out of 5), visit to workplaces (4.3), careers adviser (4.1), and talks from professional, students at university and websites all rated at around 4 out of 5. The lowest rated sources of information were computer games (3.1) and magazines (3.3). Research by b-live.com highlighted that young people's preferred source of information is parents and less so information from websites which only rated at 10%, however preference for websites increased as children became older. Another interesting finding was that only 6% preferred information from other media such as television. Millward *et al.* (2006) indicates that both sexes relied heavily on family and role models, personal instinct of what they think they are good at when making career choices, followed by work experience, with only 6% of boys and 2% of girls saying the internet. However girls were more willing to use formal sources such as careers leaflets and career advisers, although all these sources were low.

Looking specifically at education choices Slack *et al.* (2012) using the evidence of Davies *et al.* (2010) explored the way in which information is combined with the source of that information. They conclude that students prefer information from what they define as 'hot' data which is largely based on their social networks (friends and family and other students they know) and mistrust and tend to ignore 'cold' data such as guides, prospectuses and websites as they believe it is open to manipulation. They also identify a third category of information - 'warm' data - which is people they have met through casual acquaintances such as knowledge from students at open days and through social media. These sources of warm data are trusted by students as they are perceived to be reliable because the information comes from people in similar circumstances to the students. This suggests there is a need to personalise information to young people and to have information provided from existing students working in the sector as potential students' value information from people who are in a similar situation to them.

Implications for the home building sector

Although how and in what ways young people use information is contested, there is evidence that information from websites and the media is given a lower priority and mistrusted if it is in the form of advertising by young people in favour of learning from people they know. Therefore, how information is delivered needs to be carefully considered and tailored to individual needs and most usefully provided by young people working or training in the sector.

Summary of the influences on young people choices

The literature on influences on young people's choices highlights that there are a complex number of different factors impacting on young people choices. What is clear is that parents have the strongest influence on young people's career choices and the limited evidence base suggests that

parents actually know little about the home building sector and some may even hold negative perceptions of the wider construction sector. There is a need to provide these two groups with better information about the sector, although exactly how this could be achieved is less clear from the literature. There are also a number of other barriers identified to influencing young people's choices, namely:

- parents who are the main influencer of young people's choices knowing little about home building;
- lack of knowledge of young people about different sources of information;
- limited knowledge and declining level and quality of careers advice to young people; and
- potential information sources such as the media and websites either not being used by young people or are mistrusted.

The most positive influence for young people's decision making comes from providing better information to both them and their parents. Recent research has indicated that young people particularly value information directly from employers. This could take the form of talks, careers fairs, offering work experience and using role models, this approach also fits closely with Government policy. However, recent research by Mondelēz International (2014) found that although there has been a massive investment and numerous initiatives to encourage young people to study STEM subjects and consider STEM careers, their research found that 44% of young people still consider them uninteresting. When compared to humanities subjects, 53% consider STEM subjects to be 'harder' and 40% think they are less 'fun'. This finding suggests it is very difficult to break down opinions of young people even by using a variety of approaches.

4 The home building and construction sector: barriers to entry

4.1 Young people's image and perceptions of the sector

An important barrier to young people choosing careers in home building is their image and perception of the sector. The most interesting finding from the literature is the lack of research that looks specifically at the perception of home building as a career choice. Almost all research assessing young peoples' views of the sector is formed from looking at young people's views of the wider construction sector, however within the home building footprint there is evidence of more positive views of certain careers.

There has been a long history of research looking at young people's perception of the construction sector. The largest survey of young people was completed by MORI (1998). The survey found that young people perceived the sector as low status, dirty and poorly paid. They also found a lack of awareness of opportunities and that young people did not undertake activities at school that were likely to think about the sector. CITB-Construction Skills (March 2013) and Pye Tait consulting (2012) identified that the construction industry as a career option for young people is rated poorly scoring an average of 4.2 out of 10 (among 14 to 19 year olds), 6.2 out of 10 by parents and 5.6 out of 10 by careers advisers and the industry was rated consistently lower than comparable sectors such as engineering and manufacturing and retail. The lack of interest in construction as a career option, they argued is reflected in the decline in apprenticeships which had fallen in the previous four years from 14,000 a year in 2008 to less than 8,000 in 2012. Similarly the main people supporting young people's careers choices do not always have a positive image of the sector. In 2013 CITB (2014) highlighted research showing that 35% of careers advisers believe that the construction industry is an unattractive option for young people. Chan and Connolly (2006) in a survey of careers advisers and young people's views on the construction industry found that 35.3% of 50 young people surveyed had a positive image of construction, however, 20.4% described it as "dirty, cold and wet", and this was mainly female respondents. The careers advisers interviewed were keen to encourage students to go to sixth form and were less keen to support vocational options. The article concluded that employers need to be more forthcoming in forging links with schools and should offer placement opportunities and apprenticeships to encourage young people into the sector.

CIOB (2013b) highlighted that the image problem for the sector is the result of young people not understanding the size and breadth of opportunity offered by the sector, such as professional and management careers in architecture and construction management, believing that jobs are confined to working on building sites, and a similar argument can be made for the homebuilding sector. Similarly, Edeleanu (2006) argues that there is an image problem with the construction sector arguing that the easiest way to improve the image would be to make young people more aware of the opportunities offered and in particular improve salaries or the perception of low salaries across the construction sector.

As earlier indicated Millward *et al.* (2006) found that young men and women hold very strong stereotypes about the types of jobs that are appropriate for the sexes. The findings were based on a survey of 2447 young people aged 13 to 16 (1,229 boys; 1,149 girls) and a college survey of 537 NVQ students in years 2 or 3 of their training course. The research found that 67% of school boys and 80% of school girls believed plumber was a messy and dirty career with similar findings for builder. However, lower proportions indicated that they found carpenter a messy and dirty career (44% boys and 54% girls). The research also found that both sexes believed these careers lacked opportunities for promotion and nor did they think there was job security.

In the same research, surveys completed by students at college studying plumbing, building and carpentry found a more positive image of the careers with much lower numbers perceiving it as messy and dirty and higher numbers believing it would provide them with promotion opportunities.

They reported that these careers were worthwhile to society. Unsurprisingly students already training to work in the sector had higher results for enjoyment in the job, status, a chance for promotion, and the ability to secure approval from friends and lower percentages for being the job being described as messy and dirty. For students who had undertaken work experience they found that building students found it useful in their career choice in 49% of cases with only nursing at 82% scoring higher.

Looking specifically at graduates in the home building sector, Dainty and Edwards (2003) found that there was a gradual decline in take up of graduate degrees in building from 1994 to 2003. Interestingly, they found that male graduates had been declining the most with female graduates remaining about the same albeit from a much lower starting point. They explained this decline was due to the industry being synonymous with high cost, low quality, chaotic working practices and a poor health and safety record and the opportunities were poorer for building graduates. They concluded that there was a need for a concerted effort to improve the image of the sector by schools, higher education institutions (HEI's) and the industry. In addition they suggested a need to attract graduates from non- construction degrees to consider working in the construction sector.

It is interesting to note that the negative perception of construction as a career is not confined to the UK. In the US a survey by the National Business Employment Weekly of high school students found that construction rated 247th out of 250 careers (Kantz 2001).

In Italy (Dall'Oro, 2006), a small scale study of 20 young people (aged 16 to 24) who were considering a career in construction and 46 adults already working in the sector explored their views of the sector. The research found that the young people were concerned about a number of aspects:

- poor working conditions, working outdoors and in hazardous conditions;
- belief that salaries are lower within the sector than other sectors and falling; and
- desire to remain in study to gain more opportunities and belief that high education and other qualifications offers more opportunities than construction.

In addition the research revealed that society in general considered the construction sector to be dirty, uncomfortable, lacking in career prospects, and not requiring qualifications. The research also highlighted that the sector has a tradition of recruiting different generations of the same family.

The young people and adults interviewed identified a number of approaches to improving the image of the sector:

- improve the pay and working environment , making it more decent;
- highlight the heterogeneity of the construction job (profession played outdoors , not monotonous , which allows you to see places and different people);
- transform mode and the type of construction (greater automation and use of technology);
- increase the visibility of social housing , promoting at the society the image of the sector that go to break negative stereotypes;
- marketing campaign managed by construction companies themselves; and
- Mmore training in schools and visits by employers.

Carter (2007) argued that there have been numerous attempts to improve the image of the built environment sector in order to engage graduates such as Constructing Excellence and the Modern

Built Environment Knowledge Transfer Network¹. Such attempts, however, have largely been unsuccessful in changing the perception of graduates that the sector has long hours and stressful and unsafe working environments. Carter does highlight a number of successful schemes to improve the image of the sector run by CITB which include Construction Ambassadors, National Construction Week, Positive Image advertising campaigns and 2,500 professional development days that were run in 2004. However, Carter was also concerned about how young people could be retained once they were attracted to the profession. To this end CITB recently launched a £900,000 media campaign to improve the image of construction.

Although viewpoints of the construction industry dominate the discussion about the image of the sector, there is evidence that careers within the home building footprint do not suffer the same extent from negative perceptions. In particular, the sectors of architecture (Sung *et al.* 2014) Wellcome Trust (2011) and interior design are both considered high status choices of career.

Carter (2007) highlighted that the number of young people taking architecture degrees has increased markedly of the last decade. Research by b.live.com (n.d) looking at young people's perceptions of careers found that architecture was rated highly as a career choice and highlighted that there was a 8:1 oversupply of applicants in architecture. This contrasts markedly with other home building related jobs, such as builder where there was a .38 to 1 ratio, surveyor .40 to 1, electrician .66 to 1 and carpenter .79 to 1. The main area where architect as a career suffers a negative image is related to it being perceived as a male dominated and middle class profession, with a culture of long hours and little part-time work (Sung *et al.* 2014).

Research suggests that interior design is a popular choice with young people. However, there is a perception that interior design is a job that anyone can do. Research by Waxman and Clemons (2007) in the US looking at the impact of the large number of reality TV shows on young people's perceptions of interior design found that the shows had tarnished the career choice as young people believed anyone could be an interior designer and students studying design found the public's lack of knowledge about the profession extremely frustrating. They concluded that interior design did not have the prestige of engineering or architecture as a career choice. Similarly, Whitfield and Smith (2003), when looking at design careers in Australia found that interior design lacked prestige from the public. However, when specifically looking at design graduates, Cooper *et al.* (2009) highlighted that there is in fact an oversupply of design graduates but still skills gaps in the industry, which suggests that graduates are not work ready.

A number of studies have highlighted the negative perception that young people have towards sales as a career choice in general however there is no research evidence relating to young people's views of careers in sales specifically in home building. Lee *et al.* (2007) looked at graduates' views of a sales career and found that students do not differentiate between different types of sales roles and they identified characteristics based on perceived characteristics of a typical sales person. These characteristics were typically negative and included forcefulness, persistence, pushiness, overpowering, fast-talking and being a nuisance. The students did recognize positive characteristics such as that they tend to have a great deal of product knowledge about what they are selling. They argued that the best way of changing this negative perception was to attract better job applicants, although they were less clear on how this could be achieved.

Soltani (2006) looked at the reality of working in home building based on a survey of salaries within 200 individuals at senior management level across the home building sector. She found that although young people are not attracted to the sector, in reality the sector offers attractive salaries for sales staff that can be achieved at a relatively young age. The average age for a sales manager

¹ Constructing Excellence <http://www.constructingexcellence.org.uk/aboutus/activities/innovation.jsp>

was found to be 32 earning an average salary of £50,000 per year. Furthermore a number of jobs have an average age of under 40, including sales directors, who on average earn £98,000, senior land managers on £61,000, commercial managers on £55,000 and technical managers on £54,000. However, the explanation for the high salaries was based on difficulty recruiting and retaining people to the house building sector.

4.2 Approaches to improving the image of the sector

Although there have been a number of different approaches and recommendations to improve the image of the sector, it is important to note that previous schemes have been almost entirely concerned with improving the perception of construction in general or a particular discipline such as architecture. There is no research that has specifically considered home building. In addition, improving the image of the sector is closely linked to removing the other barriers identified and requires a holistic approach to be successful as noted by Raynsford and Best (2014). Construction Youth Trust (2008) identified a number of general approaches to promote construction to young people.

There have been a number of approaches identified to improve the image of the sector in particular focusing on construction, which included: organisations working together to promote the sector, media campaigns, role models, employers engaging with schools, work experience and better information, advice and guidance. Raynsford and Best (2014) suggested a need for a summit of construction organisations including the Government, the Construction Leadership Council and the CITB to look specifically at attracting more talented people into the profession and improving the image of the sector.

A number of studies (Millward *et al.*, 2006; Carter 2007), have suggested a need for a media campaign to improve the image of construction, for example Millward suggested that creating a media campaign using role models would change the perception about the nature of the work and diversity. Batterham and Levesley (2011) recommended a campaign to challenge young peoples' and their parents' views of vocational qualifications to improve the perception of vocational qualifications in general.

Using role models from young people working in the sector and employers, a popular approach is to use the Career Ambassadors scheme (Millward, 2006; Chaudry (2014) CITB (2014). This scheme encourages young people and employers to visit schools to promote and challenge negative perceptions of the sector. CITB (2014) run this scheme and recommend that the industry should:

- support extending CITB's ambassadors scheme so every school had a careers construction ambassadors as role models and
- boost the CITB website with case studies and video diaries including details of career progression, roles using new technologies or driving greener construction and more female role models.

Chaudry (2014) suggested role models would be of particular value to promoting opportunities to underrepresented groups. Offering more work experience is also seen as a good way of promoting a positive image of the sector, Millward (2006) argued that encouraging more young people to take non-traditional routes through work placements will eventually lead to less gender segregation as the stereotypes about gender will change. Millward argued that good quality work placements could play an important role if they were adequately organised and funded to a level where they were able to give young people meaningful work experience in their areas of interest. CITB (2014) similarly suggested that more employers should represent the sector at careers and recruitment events for young people.

An important way of improving recruitment to home building is to provide young people with information highlighting the benefits about working in the sector including information on lifestyle, progression routes and different opportunities offered by home building. Millward (2006) indicated a need for better information advice and guidance for young people and their parents including details about the pay, the work-life balance and lifestyles associated with different kinds of jobs. In addition, Millward suggested a need for more holistic career guidance including class based practical exercises and project work to increase young people's understanding of different careers. Educating the Educator by CITB (2014) suggested strongly that careers advice to young people needed to be improved to encourage more people into the built environment sector. UKCES (2013a) highlighted the potential use of technology by the construction sector as a way of engaging with young people, thereby creating a more diverse workforce by changing their perceptions. In particular UKCES recommended developing more offsite construction, which would allow young people to work indoors and a reduction in manual labour.

4.3 HR practices: Recruitment and selection

The following section looks at the recruitment and selection practices of employers across the sector and how this impacts on young people. It begins with the general recruitment issues that have been identified as providing a barrier to recruiting more young people in general.

Barriers to employing and recruiting young people

Before exploring the barriers to young people working in the sector, it is important to recognise that employers in general can face a number of attitudinal barriers to recruiting young people. Hasluck (2012) identified a number of attitudinal and practical barriers faced by employers when recruiting young people including their preparedness for work, their basic skills, lack of experience and their attitudes to work. Similarly, Scaling the Youth Employment Challenge (also by UKCES) highlighted that lack of experience was the most important barrier to employers recruiting young people, but the same research found that only 27% of firms offered work experience.

However, Hasluck also identified the benefits that young people bring to work which included: lower recruitment costs, lower, entry level wages, greater flexibility, higher qualifications, a willingness to learn, quick to learn, strong organisational values, a connection to the market, higher retention rate, as well as greater innovation, energy and optimism. They also can contribute a diversity of perspective and can contribute to the long-term prospects for the firm while also mitigating the consequences of staff retirement.

General barriers to recruitment and selection

The CIPD (2013) highlighted a general mismatch between young people's and employer's expectations concerning recruitment and selection. The research highlighted that young people struggle with entry to the labour market due to:

- a general employer bias against young people (in particular amongst those employers who don't recruit young people);
- preference to recruit workers who are more experienced, and immediately productive, favouring a 'finished product' rather than a workforce investment, 'growing your own' approach;
- a structural shift towards more high-skilled jobs and fewer entry-level positions, especially in industries which employ a high number of young people;
- a lack of knowledge among young people about occupations, career pathways and the breadth of opportunities available; and

- a decrease in work experience leading to a perception that young people lack ‘work-readiness’ and employability skills.

Tunstall *et al.* (2012) highlighted the difficulty young people from disadvantaged backgrounds or with low skills face to find employment due to lack of local knowledge about opportunities, lack of knowledge about employers’ recruitment and selection practices and in particular lack of access to the internet for job search purposes.

Barriers to recruitment and selection in the home building footprint

Specifically looking at recruitment and retention in home building, Clarke and Herrmann (2007) in a survey of the 408 employers from the House Builders' Federation (HBF) found that firms within the sector tended to focus on traditional and informal methods of recruitment. Procedures tended to rely on experience not qualifications, informal channels, particular word of mouth or people ringing in or ‘ringing around’ to find applicants. There was also evidence of firms poaching staff from other employers and subcontracting making formal recruitment practices difficult. They also found that the lack of stable employment conditions exasperated the problem. All these arrangements present difficulties in recruiting young people and in particular women and ethnic minorities to the sector. However for the social housing sector, they found that firms displayed a higher level of direct employment, lower levels of subcontracting and a wider range of HR policies in place.

Research has highlighted that HR practices in the construction sector provide a particular barrier for entry for young people. Lockyer and Scholarios (2007) looked at recruitment and selection in the Scottish construction sector, and found that only large firms tended to have formal recruitment practices. However, even in large firms, this was often missing in the manual and low skilled areas of the business as only managerial and supervisory staff tended to be selected more formally and advertised through the national press. They found that in non-management jobs (skilled trades and manual jobs) recruitment tended to be based on more ad-hoc approach with site managers having the responsibility in the majority of smaller firms. The most popular recruitment methods used tended to be government agencies, local press and referrals from existing staff. Similarly, selection tended to be based on references, personnel recommendations and telephone interviews, rather than formal paperwork and application forms. For manual posts, there was widespread usage of CITB competency certificates. For skilled craft based jobs selection was largely based on assessing the candidates while doing the job on a probationary period. They explained this approach was due to the project based and site specific nature of construction work and irregular need for different types of skilled staff at different times, the desire to reduce labour costs and the use of subcontracting further complicates recruitment and selection leading to a more ad-hoc short-termism approach. They concluded that recruitment and selection practices in the sector did not meet human resource best practice and could create a barrier for new entrants, particularly in none management roles and in staff looking for a structured career path.

Dainty *et al.* (2007) suggested that job security and terms and conditions of employment are a barrier to recruitment into construction, particularly relating to short-term contracts. They argued that this has a particularly negative impact on skills development as employers are unwilling to invest in skills for a temporary workforce as they may not receive return on investment. This is particularly an issue for temporary and unskilled workers, as Dainty highlights, high skilled and permanent post holders across all industries are more likely to receive more training and larger firms have a tendency to offer more training than SME’s and particularly smaller firms . They also highlight the difference between Germany and the UK where in Germany, most workers are vocationally qualified or working toward such qualifications. They suggest that the UK has attempted to replicate the German model, but without providing secure employment, strong links with trades unions and robust educational input into the workforce. They also draw attention to the lack of empirical research that addresses recruitment practices in the sector.

Looking at recruitment in higher education, Dainty and Loosemore (2012) also suggest that in areas like safety, diversity, equal opportunities, work–life balance and gender equity, human resource practice is inferior to other graduate sectors. In particular they highlight that well developed HR practices are only apparent in larger firms and concerning managers and professionals and workers lower down tend to not have much interaction with HR.

Improving recruitment and selection in the homebuilding footprint

Clarke and Herrmann (2007) suggested a need to provide comprehensive apprentice training programmes and good, stable employment conditions to improve recruitment and retention policies for young people.

Atkinson (2006) indicated that one of the most effective ways of recruiting and retaining new staff is through making the organization a better place to work. Atkinson suggests that this can be achieved through staff feeling valued through adequate pay and benefits and through regular and individual performance appraisals, availability of good training and a clear career structure. The findings were based on the Best Places to Work in Construction Awards.

Research in the United States by Johnston *et al.* (2013) identified a number of ways to recruit young people to the construction sector. The research made a number of recommendations, which included developing a new recruitment strategy with an individual responsible to promoting careers to young people, setting standards for recruitment and selection and making them available to candidates and continually reviewing the recruitment process to ensure that it is attracting the best candidates. The research highlighted the value of informal communication with young people using social media, in particular Facebook and LinkedIn and Twitter through which images of young people working in an organisation can be used to further promote a particular type of career to young people. In addition they indicated a need to target young people at primary and secondary schools as well as community colleges who may not have considered a career in the sector.. Furthermore they suggested a need to mentor young people and develop regular communication with new recruits including training and a career progression development.

CIPD (2012) argued that in order to improve recruitment and selection of young people into any industry employers need to consider a range of approaches for recruitment:

- using social media in recruitment strategy and recruitment process to attract young people (in particular using Facebook);
- employers to use outreach within schools to raise awareness and encourage young people to apply;
- using mentoring to encourage young people (e.g. CIPD Steps Ahead and Princes Trust team mentoring);
- adopting a more youth friendly recruitment strategy;
- highlighting central importance of line managers to recruiting more young people;
- increasing access routes to young people particularly around non-graduate routes and
- employers to develop school leavers' programmes and sponsor degree courses.

In terms of the selection process CIPD (2012) suggested more young people friendly approaches such as:

- having a closing date and contact details for the advertised position;
- more transparency: information about the overall process, the different stages and the expectations during those stages;
- simpler, youth-friendlier application forms;

- clarity about selection criteria;
- review selection criteria; and
- a more friendly interview process which focusses on what young people can do and gives constructive feedback.

In addition, CIPD (2014) highlighted a need to better support young people new to working and created a guide to assist this. The guide indicates that for developing and supporting a young person, the employer needs to:

- gradually increase the number of tasks that a young person completes and recognize progression as they develop;
- review and revisit objectives on a regular basis;
- tailor support to the size and set up of the business;
- support the young person to recognize activities and skills that they have developed/achieved;
- provide them with a mentor and or buddy within the workplace;
- encourage them to identify and develop their skills through training;
- challenge them to complete tasks that will stretch their ability and reward them accordingly;
- provide regular supportive feedback; and
- encourage them to feedback their thoughts and ideas.

Barriers to different groups

The underrepresentation of different groups including women, ethnic minorities, and people with disabilities within the sector has been identified as an actual barrier to attracting these groups to the sector. De Graft and Johnson *et al.* (2009) reported on the diversity policies adopted in the construction industry and found underrepresentation from certain groups as 13.5% of the sector were women and only 2% from black and ethnic minority groups. 4% have reported some form of disability. The design industry also has a lack of diversity, with most designers being young (62% under 40), male (61%) and white (94%) (Cooper *et al.*, 2009).

Women

Fuller *et al.* (2005) highlights that certain occupations are associated with certain genders at an early age and these beliefs can become 'deeply entrenched'. In the construction industry as Gambin *et al.* (2012) highlighted, only 13% of construction workers are female and in specialised construction, less than 9% were women. Munn (2014) indicated that only 11% of the wider construction sector were women, however in manual trades such as bricklaying the representation of women is less than 1%. Dainty and Lingard (2006) found that women represented just 1% of total employment in site-based technical roles in the U.K. Watts (2009) found that women held 5% of civil engineering roles. Fielden *et al.* (2000) identified a number of reasons for the barriers to women entering construction which included the image of the sector; knowledge of construction careers amongst children and adults; selection criteria and male dominated courses; recruitment practices and procedures; sexist attitudes; male dominated culture; and the work environment.

Clarke (2014) identified a number of historical barriers that have been identified in research as discouraging women working in the construction sector, which include:

- inappropriate and poor working and employment conditions, especially long working hours;
- discriminatory recruitment practices based on word of mouth rather than qualifications;

- the persistence of a macho culture, and short-term concerns with output.

The research highlighted a number of areas where women can face direct and indirect discrimination in male dominated professions. In terms of direct discrimination, women and in particular older women face more rigorous interviews in recruitment, focusing on their commitment and competence to do the job. (Bagilhole, 2002). In addition, they identified concerns relating to sexual harassment and inappropriate behaviour due in part by the male dominated culture of the industry. Indirect discrimination occurs due to difficult working conditions for people with family responsibilities. This includes long working hours and a lack of facilities for women (no female toilets, and safety clothes and gear).

Looking specifically at home building, Clarke and Herrmann (2007) argued that the main cause of under representation is the image of the sector as white and male-dominated. However, Whitfield and Smith (2003), when looking at interior design profession found that students studying to be a designer viewed interior design as a female dominated profession, although they also perceived to be a well-paid profession when compared with other design related jobs.

Construction Industry Council and Construction Skills (2010) indicated that the sector was losing valuable talent as high numbers of qualified female engineers and architects leave the sector within five years of joining, due to inflexible working conditions, resulting in less role models to attract young women to the sector.

More recently CITB highlighted that there is a gender pay divide within the construction sector with women on average earning 12% less than men based on Office of National Statistics (ONS) data. For specific sectors there were higher pay gaps in the following areas:

- construction and building trades supervisors (33%)
- architects (25%)
- electrical and electronic technicians (24%)
- glaziers, window fabricators and fitters (24%)
- mobile machine drivers and operators (22%) (The Construction Index, 2014).

Within the architecture sector, De Graff *et al.* (2003) in a survey of female architects highlighted a number of reasons why women left the sector. The results were remarkably similar to the barriers attracting young women into constructions including low or unequal pay, long working hours, inflexible and a lack of friendly working hours, limited areas of work, glass ceiling, stressful working conditions, macho culture, sexism, lack of returner training and more job satisfaction elsewhere. Sung (2014) argued that the UK architectural profession is male dominated, with women representing less than 20% of registered architects and 13% of chartered architects. Ethnic minorities comprise 6.6% of architects.

Francis and Prosser (2014) highlighted that women's representation in the construction sector is likely to be improved under two circumstances: if careers advisers have greater knowledge about women's experience in construction roles and can therefore promote the idea of entry into the sector and when women personally know someone working in the sector. The personal knowledge of someone already working in the industry was not considered important by men. In terms of women achieving management roles, they highlighted that conventional ways of working caused women's contributions to be marginalized. For example, many working women are also the primary caretaker of the family. This arrangement may not be conducive to working in a sector which requires long working hours in order to reach senior levels. Munn's 2014 report identified a number of overarching and specific requirements to improve the representation of women in the construction sector. On a policy level, the report calls for a culture change within the industry to counter perceived bullying towards women in order to make the sector more welcoming. They also

suggest a need for better working conditions including flexible working and a commitment to support more women into management positions.

The report also suggested a need for policies to attract all members of society including women to start their career in the sector at different life stages. Specifically for young people, the report highlights the need to invest more in apprenticeships and courses specifically for young people and for the sector to make work placements more readily available.

Francis and Prosser recommended that to improve the situation, the personal knowledge of careers advisers about the sector needed to be improved so that they will encourage more women into the sector. In addition, there is a need for young people, parents and advisers to be able to access current information about construction first hand from people working in the industry, which will negate the negative gender stereotyping that currently, exists.

Taking evidence from the University of Warwick (2010) 'Good Practice in STEM Careers' they suggested a need for using images of women and BME and disabled people in promotional material such as websites. In addition they highlight the need to use role models from people working in the occupation. For events promoting a particular career to young people they recommend encouraging schools to send equal numbers of girls and boys and to have representative speakers who are aware of equality issues and to use role models from underrepresented groups where possible.

Black and Minority Ethnic (BME) representation

Caplan and Gilham (2005) highlighted the lack of research looking at the make-up and underrepresentation of BME groups in research for the built environment sector. Chaudry discussed the unreliability of statistics relating the exact representation of BME groups within the construction sector due as there is no reliable monitoring system in place. He stated that the most reliable statistics from the Office for National Statistics showed 3.8% of the workforce came from BME groups. The Construction Skills (2008) reported a more positive picture with BME students making 7% of construction industry trade trainees. Chaudry (2014) identified a number of possible barriers to young people from BME groups working in the built environment sector, including:

- poor recruitment practices and prevalence of 'word of mouth' recruitment, suggesting that unlawful discrimination is taking place;
- difficulties gaining access to traditional apprenticeships or work placements because of the 'who you know' effect; and
- evidence that once in the industry they do not tend to progress to higher management positions as white male counterparts –citing the evidence of Gurjao (2009).

The three main barriers identified by BME groups were: the image of construction (18%); lack of work-related training/apprenticeships for BME people (16%); individual choice (14%) and other barriers included lack of BME peers, nepotism, career-path issues and competitiveness.

Ahmed *et al.* (2008) indicated that although there was little research looking at representation of BME groups within higher education in construction, graduates from BME backgrounds were well represented within the sector. They identified a number of barriers to increasing the representation of BME graduates working within construction. The greatest barriers were the image of the construction industry, the perceived networking and nepotism where industry tended to employ members of their own family, the lack of support networks and for students from outside the UK, visa problems and lack of recognition of international qualifications. They concluded that the main issue for BME graduates was related to recruitment systems and entry support.

BMEs are also underrepresented in architecture with only 2% of architects being non-white (CABE, 2004) however, CABE highlighted that 18% of all architecture undergraduates were from BME backgrounds. In particular they found that BME groups were often discouraged from considering

architecture by careers advisers and were not presented with the career option at school. In addition, the BME groups surveyed raised concerns about the length of time to qualify and the associated costs of study. CABE made a number of recommendations to encourage all underrepresented groups into the profession, including:

- outreach activities and promotion through the media;
- use of role models and mentoring once studying at university.

To support this, CABE (2006) provided a guide to supporting more diversity in architecture schools within the UK. For encouraging recruitment and admission of young people they suggested a range of outreach and information raising activities with schools, offering taster sessions to school children, creating relationships with people advising school children, teachers, careers advisers, colleges, community organisations, parent groups and providing material to schools and colleges. In addition, specifically for underrepresented groups, they suggested targeted subject specific material that uses images and language that is inclusive.

Ahmed *et al.* (2008) identified a number of approaches to increasing the representation of BME graduates in construction, including:

- positive role models;
- monitoring systems and processes;
- work placement opportunities;
- building support networks;
- anonymity in job applications; and
- promoting standard guidelines.

Chaudry (2014) suggested a number of approaches to addressing these issues, and made several recommendations that would support young people including:

- promote and improve understanding and importance of legislation and why this is an important issue for the sector;
- promote BME role models to encourage BME interest in the sector and to increase the number of BME lead firms;
- seek government grants to help create opportunities for student work placements including BME students;
- improve recruitment practices to allow fair and equal access, creating opportunities for support (e.g. recruiting people in pairs);
- establish, through a leading construction industry organisation, a BME approved contractor and consultant list to build capacity among these individuals and companies.
- create a BME construction group for networking, development, sharing ideas;
- learning lessons, potentially leading to the formation of a group of BME firms that could work together and develop their services; and
- promoting equality and diversity training for all staff.

Young people with disabilities

As de Graft-Johnson, *et al.* (2009) highlighted, the employment of people with disabilities in the sector is still relatively low with 14% of those fit to work being employed in construction compared to 50% in other sectors. ConstructionSkills (2011) suggests that people with disabilities make up 13% of the construction workforce. However, Peters *et al.* (2011) highlighted a lack of awareness

and monitoring of disability issues within the sector. Ormerod and Newton (2013) highlighted the same issue, however, they indicate that young people with disabilities are unlikely to consider employment within construction without better awareness-raising by the industry—by both employers and professional institutions—of the range and scope of opportunities available, and a dispelling of the myths that construction is for the able-bodied. The research found that young people with disabilities, when considering working in the sector would prefer to be treated equally than being favored because of their disability. The article also highlighted that more practical support from careers advisers for people with disabilities could more actively promote the construction industry. The research revealed an ambivalence by young people with disabilities to the current schemes to encourage them to work in the sector such as ‘disabled people’ scheme (Department of Work and Pensions 2012) which is awarded to companies that demonstrate a positive approach in a number of areas of their work. They suggested a more positive approach would be for employers to use case studies and role models to demonstrate positive examples of how young disabled people are being treated fairly and can progress in the sector. The research highlighted that disabled people believed the image of the sector of being very masculine and macho discouraged participation. However, architecture and project management were seen as good options by people with disabilities. They recognised the importance of training and particularly pre-employment training to encourage better participation of people with disabilities. Ormerod and Newton (2013) concluded that to encourage people with disabilities into the sector a number of approaches were required:

- better Careers advisers, including specialist advisers in schools and colleges;
- using disabled people working in the sector as role models to visit schools and colleges;
- segregated pre-employment training for disabled people that is specific to their individual needs; and
- industry taster days’; to encourage disabled young people.

Manley and De Graff-Johnston (2013) revealed that people with disabilities who were training to be architects had experienced a number of barriers whilst training and transitioning into work, including:

- lack of primary and secondary school education;
- architecture schools: environment ethos and culture;
- application process to architecture school;
- progress and progression opportunities;
- teaching learning and assessment;
- the curriculum not being inclusive; and
- student transition to the workplace.

They also raised concerns about the long hours culture experienced by the sector and the lack of part-time study. To alleviate these issues they identified a need to improve information advice and guidance, so that careers advisers are better informed; compulsory equality training and CPD for staff involved in the recruitment, training and teaching of architects to raise awareness of disability issues; alongside other workplace diversity initiatives such as the Athena Swan Charter and the Daphne Jackson Trust.

Improving diversity in the home building footprint

The lack of representation of different equality groups is clearly a difficult issue to resolve, requiring different solutions within the home building footprint. In terms of general policies to improve representation, the Equality and Human Rights Commission in 2011 suggested a four point

framework for action for the construction sector, which indicated a need for a sector wide approach to the issue and included:

Increasing the knowledge pool – Lack of joined up thinking and duplication of activities is currently occurring, what is needed is a getting started guide, good practice, expertise, information, learning from research and evaluation, and the industry context so organizations can share good practice.

Construction works – where management at all levels works together to challenge bias and provide training on diversity at all levels.

Communications and media – Improved communication between organizations to share case studies and resources and existing scheme such as the ambassador scheme should be linked to recruitment equality and diversity targets and offered as part of CPD. Also need a simplified message on equality and diversity that can be shared across the profession.

Business results and impact management – The report called for better monitoring of equality and diversity across the industry through an online sector-specific comparison tools to share good practice.

Although there is little research looking specifically at home building, this review has highlighted that under representation is an issue discouraging these groups of young people from entering the profession. The approaches to tackling the issue had a number of similar themes:

- use of role models within schools and in literature promoting the career;
- targeted campaigns to underrepresented groups in specific careers;
- outreach activities involving employer working with and in schools, to include talks and taster days and work experience;
- better advice and guidance, including progression opportunities, funding opportunities; and
- better monitoring to highlight progress.

Progression routes

As already indicated, a major barrier to young people is lack of knowledge and opportunities of different progression routes within the home building footprint. Oxenbridge and Evesson (2012) similar to Atherton *et al.* (2009) identified that young people tend to have limited knowledge of job content and occupational pathways and rely on family and friends and in limited instances official sources. Agapiou (2002) highlighted the lack of knowledge of parents, schools and careers advisers about the different careers available in the construction sector, progression routes and opportunities after apprenticeships. Agapiou indicated a need for better information for all groups about opportunities, training and progression and a more flexible approach to encourage underrepresented groups as well as marketing to improve the image of the sector.

Construction Youth Trust (2008) highlighted a need for mentoring in schools and colleges. With respect to colleges, they suggested this could include assistance in the gaining of an apprenticeship, technical qualification or progression on to a Foundation degree. With respect to schools, they recommended support for sixth formers prior to university applications with information on sponsorship, part-time study and the opportunities on graduation. They also suggested a need for a web based resource to inform young people of progression routes within construction and the built environment. Construction Youth Trust also highlighted the value of promoting progression in specific careers to young people. A good example of this is 'Barratt Sales Career Pathway: Building

Futures Together² The Housing Forum, *et al.* (2005) *How to Arrange an Apprenticeship in House Building* is a useful guide to provide better information to young people about apprenticeship opportunities in home building.

Design Council and CCSkills (2007) indicated that a significant barrier to young people working in design careers, including interior design was over reliance on the university route in the profession. The design Commission (2011) suggested that these issues could be in part addressed through the creation of higher level vocational qualifications in design related disciplines. In addition, Creative and Cultural Skills suggested a need for an apprenticeship route into design as a career, but stated that it had not currently been developed. To inform apprenticeship progression they suggested a need for information for all apprenticeship completers on opportunities in technical, managerial and professional qualifications.

With respect to architecture, Caven (2005) indicated that studying and professional practice prior to qualification is usually seven years and comprises undergraduate study of three years, one year spent in an architectural practice and two years study for a postgraduate qualification. These requirements discourage students from poorer backgrounds progressing in the career. It was suggested this could be alleviated by developing more progression routes and part-time study.

Apprenticeships and vocational training

One of the major pipelines for the recruitment of young people into the sector is vocational training and apprenticeships. Over the last decade there has been an increase in the level of vocational training, although this has not been represented to the same level of increases within the home building footprint. There are a number of reasons for this, however first we will look at the general barriers to the take up of apprenticeships by young people.

General barriers to the take up of apprenticeships and vocational training

There are a number of barriers which discourage young people to follow vocational routes in general that have been identified. Working Links (2011) highlighted a number of these through interviews with 500 young people and nearly 80% of the young people surveyed thought apprenticeships were aimed at those with low qualifications. In addition, they found:

- they could find no apprenticeship in the areas that they wanted to work;
- considering a degree was the best route to a good job (34.7%); and
- apprenticeships were for 'people who are really good at hands-on work' (33.7%).

Similarly Spielhofer *et al.* (2010) identified that although young people believe they know about the routes available to them in general terms, almost half do not know what courses and apprenticeships are available in their area. They also lack information about the costs of apprenticeships, financial support available to them and the types of courses available to them. In addition they found that a fifth of young people find the decision-making process difficult and 7% end up dissatisfied with the choice they make and almost a quarter of young people participating in education or training would do something different if they had been aware of all of the courses they could have taken.

As has already been indicated, young people, and their key influences (parents and teachers) are generally inclined to academic routes than vocational routes and lack knowledge about vocational options. As Batterham and Levesley (2011) highlighted, both young people and parents believed

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<http://www.buildingcareerstogether.co.uk/PageFiles/55/Sales%20Career%2016pp%20200513%20WEB%20FINAL.pdf>

they were aware of vocational options, but despite this, only 37% of parents believed they were confident in supporting these choices in their children compared to 60% for more traditional education options. Both the young people and their parents viewed general education qualifications as a route to university and a means of gaining transferable skills, and believed vocational qualifications were linked to specific industry sectors and therefore more limited.

However, research by City and Guilds and Demos (2014) indicates that employers value vocational routes and 60% of respondents believe the Government needs to do more to promote vocational education. In addition, 74% either believed either slightly or strongly that there needed to be an increase in the range and choice of vocational routes to young people across all sectors.

Vivian *et al.* (2012) looked specifically at the recruitment of young people to apprenticeships and found that the main motivation was to progress their career (reported by 48% of all apprentices). A further 35% were mainly interested in achieving a qualification whilst just 13% were mainly motivated by the opportunity to be paid whilst learning. Interestingly, the research looked at students' satisfaction with their training and found construction and the built environment led to the greatest levels of satisfaction with 77% being very satisfied. However, Winterbotham *et al.* (2012) reviewed employers' views of apprenticeships and found that with construction and built environment apprentices, employers were less satisfied with the quality of the apprentices than the average across all sectors.

Batterham and Levesley (2011) concluded that better information, advice and guidance was needed to challenge students' and parents' views that vocational qualifications limited options, particularly for students wishing to go on to higher education. Batterham and Levesley (2011) showed that the young people and parents suggested a need for:

- more contact with employers through work experience and information directly from employers;
- taster sessions in colleges about particular occupations; and
- better information, advice and guidance about transferability of skills and knowledge gained through vocational qualifications and the routes they open up for further study for teachers, parents, careers advisers. Awarding bodies and learning providers were identified as sources for this information.

To increase the number and quality of apprenticeships for young people, the work Foundation (Jones, 2013) suggested to the Government that:

- careers advice and guidance in schools needs to be improved particularly for vocational pathways;
- traineeships should be available for all those young people not ready to take an apprenticeship;
- employer engagement in schools should be expanded, particularly for large employers and SMEs to encourage young people to take up apprenticeships;
- the content and level of apprenticeships need to be improved, offering more advanced and higher level apprentices; and
- there needs to be improved regulation of the apprenticeship system to improve quality.

Lord Baker (2014) suggested that in order to secure the appropriate skills and qualifications, young people need to begin vocational education earlier. He uses the example of University Technical Colleges (UTC's) as a way that young people can start vocational qualifications at age 14 so they are qualified at level two by age 16 so they can move quickly into level 3 qualifications.

British Chambers of Commerce (BCC) (2014) Skills Manifesto highlighted that educational qualifications need to be consistent and clear to enable employers to understand an individual's competencies. They also recommended that helping SMEs to invest in apprenticeships and workplace training, using Chambers of Commerce and other local bodies to support this could significantly increase the number of apprentices.

Barriers and enablers to apprenticeship take up within the home building footprint

There are a number of barriers identified to recruiting more apprenticeships within the sector. The most significant barrier is the overall lack of apprenticeship opportunities. This can be explained by a number of factors relating to employers such as the costs of apprenticeships, the structure of the workforce, lack of knowledge about future skills needs and the complexity of the vocational system.

Abdel-Wahab (2012) identified a number of barriers to recruiting apprenticeships into the construction industry that included, firstly the nature of the construction industry, namely that most firms employing apprenticeships are SME's which are less likely than larger firms to invest in training and tend not to have fully developed formal human resource functions to train and develop staff, which is further exasperated by concerns about poaching of staff when trained. The second issue identified was a lack of knowledge about the level of supply and demand for apprenticeships within the sector, with targets being set for apprenticeship levels without full knowledge of where the apprenticeships are needed. The final issue is employer engagement as Abdel-Wahab argued the sector as a whole is very complex and it is difficult to fully engage with employers as a result. This is exasperated by employers being unable to articulate their future skills/apprenticeships needs.

Adult Learning Inspectorate (ALI) (2005) reviewed apprenticeships in the construction and building services engineering sector and found that there were issues in retention and take up of apprenticeships, particularly for foundation degrees. They identified a number of reasons for this relating to employers:

- few apprenticeships are employer-led;
- few employers are involved in the training and assessment process;
- there is a lack of commitment and involvement in training and taking on apprentices by employers;
- the apprenticeship framework requirements are complex, and deter employers; and
- most employers are sole traders and small firms, and tend not to engage in training and the achievement of qualifications.

The House of Commons, Cross-party parliamentarians' inquiry into construction (Raynsford and Best, 2014) identifies that only 7,280 apprenticeships were created in 2012/2013. Earlier, Gardiner in 2012 highlighted that despite the large increase in apprenticeships within the UK in general the construction sector apprenticeships had been declining from 14,000 in 2007/08 to under 8,000 in 2011/12. The explanation for this fall was concerns about in the instability of the sector after the recession and the relative cost and time to complete a construction apprenticeship compared to other sectors. The National Audit Office found that one fifth of apprentices are completed in less than six months. When compared to a construction apprenticeship which takes three years, the construction apprenticeship is a long commitment to both the apprentice and the employer. The relative cost of an apprenticeship, in spite of funding for employers from CITB still costs an employer an average of £26,074 to train an apprentice for three years.

CIOB (2013) identified the cost of apprenticeships to young people and employers as an issue, but also highlighted a number of other barriers to firms training more apprentices, which included government concentrating on efficiency (saving money) from the sector as opposed to training,

cheaper labour being employed through migration from Europe, where workers are already trained, and geographical variations in the demand for construction jobs differs across the country, citing the North East where there is high unemployment and lack of opportunity.

Looking particularly at the home building footprint, Chester and Molloy (2010) identified four main barriers to housing associations creating more home building apprenticeships. These were their own knowledge and understanding of apprenticeships, lack of understanding about funding, resourcing and capacity of staff and lack of internal structure to support the apprentices particularly relating to mentoring. Chester and Molloy (2010) made four recommendations to increase the number of apprenticeships being offered by housing associations to young people. These included:

- housing associations contractual agreements with employment and training responsibilities of contractors and sub-contractors;
- stronger partnerships between housing associations and the National Apprenticeship Service;
- development of pre-apprenticeship programmes; and
- securing funding through the National Housing Federation.

Approaches to improving the number of apprenticeships

Abdel-Wahab (2012) identifies three approaches to alleviating the difficulties in apprenticeship recruitment, firstly delivering apprenticeship training differently by using Virtual Learning Environment (VLE) and workplace simulation. The research also highlighted the need to use experienced workers as mentors to apprentices, with incentives to fulfill this role. They also suggested that involving trade unions in supporting apprenticeships, citing evidence from the US (Glover and Bilginsoy, 2005) where joint programmers (employer and union partnership) increase enrolments and greater participation of women and ethnic minorities.

The Holt Review suggested that SMEs could be encouraged to engage with apprenticeships, which would be a particular benefit to the sector as the majority of employers are SME's. Holt's main recommendations relate to:

- 1) communication – raising awareness of the benefits of apprenticeships;
- 2) empowerment – enabling SMEs to get the best from their training providers; and
- 3) simplification – clarifying ownership and responsibility for the programme and removing barriers.

McGregor and Sutherland (2013) explored the use of shared apprenticeships in the home building sector in Scotland. The shared apprenticeship model is hoped to increase the number of apprenticeships, particular for small firms who don't have the capacity to commit to a 3 to 4 year apprenticeships and by pooling, employers can offer apprentices more varied work. The research highlighted the Construction Skills Shared Apprenticeship Scheme where an apprenticeship not for profit company is set up to manage the apprentices within organizations. Although no formal evaluation of the scheme has been undertaken to date, the scheme is perceived to be successful in increasing the number of apprentices and has been expanded into a further ten regions. They also highlighted that a similar scheme proposed by the National House Building Council (NHBC) of setting up a Group Training Association (GTA) has not happened due to lack of funding. They concluded that this approach could provide additional apprenticeships in construction, but should not replace but should be seen as an additional source for attracting young people into apprenticeships. They argued that the approach should be built on three principles: employer-led, not-for-profit and focused on national priorities.

CIPD (2012b), in their guide to apprenticeships, highlighted the Barratt Apprenticeship Programme as a successful scheme to create apprenticeships by the sector. The case study highlighted Barratt's approach to setting up a successful programme which was to:

- get executive buy-in for the programme;
- involve the business in developing your programme;
- have a central support person/team;
- partner with a reputable learning provider;
- ensure apprentices are given full support throughout their training;
- encourage local relationships with colleges, contractors, parents and the managing agency; and
- maximise the potential of the young people by providing additional opportunities to learn.

The Educating the Educator report (CITB, 2014) highlighted a number of approaches to improving training and particularly apprenticeships. The most important they considered was to match training with employer needs, similar to the approach developed by UKCES.

Raynsford and Best (2014) made a number of suggestions to increase the number of young people taking up apprenticeships:

- further simplifying funding to make it easier for employers to access support;
- expand pre-employment programmes, by consider channeling funding from other streams – like the Work Programme – similar to like the Prince's Trust and the Construction Youth Trust to run programmes that support the unemployed to become apprentices;
- pay apprentices more, -although on average construction apprentices receive 32% more than average apprentices the Government could incentivise employers to pay more to reduce drop out;
- offer more flexible apprenticeships", to cover those who have reached 19 years old but have still to complete their training and encourage an increased uptake;
- encourage greater collaboration between training boards to share best practice, built environment: the CITB, Summit Skills, the Engineering Construction Industry Training Board and Asset Skills;
- using public-sector contracts to boost employment for young people by making it part of planning regulations; and
- setting up employment and skills groups: Local employment partnerships should take a lead in setting up employment and skills groups (ESG) to agree targets, manage initiatives and monitor outputs for local jobs for young people.

The review of apprenticeships has highlighted that there are a number of barriers to creating additional quality apprenticeships and that it is an issue that affects many sectors including home building and construction. The barriers come from two sources: the demand side as young people and their influences hold some negative perceptions about vocational routes. Young people and their influencers typically have less knowledge about vocational routes.

In addition, from the supply side, the home building sector may struggle to encourage employers and in particular small employers to invest in apprenticeships due to a range of factors, including cost and time as well as return on investment due to apprentices leaving not valuing the qualification and the complexity of the apprenticeship system.

Approaches to encourage more young people to take apprenticeships include:

- better information and advice about progression routes and opportunities;
- pre apprenticeships traineeships for young people that aren't ready to progress to a full apprenticeship;
- involving employers and existing apprentices in promoting opportunities within schools, including offering taster days and work experience;
- more flexible apprenticeships, in both time to study, starting them earlier and by the use of technology in learning;
- highlight the benefits and potential progression routes;
- increase the pay of apprenticeships; and
- use of mentoring to support apprentices.

However the greatest barrier is the unwillingness of employers to take on apprentices particularly in smaller firms, the solutions to this are more complex and require the intervention of government, however they could include:

- expanding the shared apprenticeship model;
- using public sector contracts to encourage firms to take on apprenticeships;
- making apprenticeships less complex for employers and make them more employer led;
and
- promote the benefits of apprenticeships to employers;

5 Conclusions

The most significant finding from the review of the literature on the barriers and enablers to attracting young people is the lack of research looking specifically at home building. Furthermore, the findings suggest that the identity of the sector appears to be almost entirely drawn from looking at the wider construction sector. Within specific careers within the home building footprint, the evidence presented is drawn almost entirely from young people's general views on a particular career such as architect, interior designer or sales and there is little research that looks specifically at individual careers in home building.

The main barriers to attracting people to the sector are the lack of knowledge of young people and their key influences (parents, family, teachers and careers advisers) about the opportunities, career paths and progression routes offered by the home building footprint. Another major barrier is persistent negative perceptions of the construction sector as being a difficult profession to work in with poor working conditions, with a lack of job security, a lack of training and career progression opportunities and the general preference that young people have towards academic routes as opposed to vocational routes. The negative perception does appear to impact on young people choices, but is not consistent across all careers, such as architect and interior designer but could be impacting negatively on young people considering working in home building.

Further to this there are specific barriers to particular groups. Women for example are under-represented across the sector and a number of reasons are given for this including few role models, a male dominated culture and stereotypical and outdated images of the workplace. Equally, a lack of flexibility in working hours and practices a view that it is more difficult for women to achieve promotion account for some women preferring other career paths.

There are also a number of barriers that relate to employer practices, particularly the fact that the sector consists mainly of SME's investing in apprenticeships and having well developed recruitment and selection practices that are difficult for young people. The barriers included lack of training opportunities, particularly as employers are not able or willing to take on apprenticeships and recruitment and selection practices that discourage young people from applying. The enablers to encouraging more young people to work in the sector include more young people-friendly recruitment practices as highlighted by CIPD (2012a). Encouraging more apprenticeships is difficult to achieve, but could include simplifying funding for employers, promoting the value of apprenticeships to employers, expanding the shared apprenticeship scheme and making public contracts stipulate the use of apprentices.

The main enablers to attracting young people suggest a need for employers, professional associations, schools and colleges to work together to promote opportunities to young people. The review highlighted that young people require more information, advice and guidance about working in the sector including progression and training routes, career progression once working in the sector. In addition young people particularly value information, advice and guidance gained directly from employers in the form of talks, work experience and visits to the workplace and taster days. Young people greatly value information about careers from people who are similar to them so involving young people working in the sector to meet other prospective young people is advantageous. In addition using role models from employees, particularly young employees, has been identified as a good way of promoting the sector, particularly to underrepresented groups. This could involve visits to schools using images and promotional material as well as the use of websites and social media.

The evidence on the value of promotion and media campaigns is less conclusive as a number of reports have suggested this as an approach to changing perceptions and encouraging young people to consider the sector. However, there is also evidence that young people mistrust media

campaigns and prefer more targeted initiatives that involve direct contact or information delivered through social media.

Finally what is clear from the literature is that attracting more young people to home building is both complex and multifaceted requiring a number of different strategies to encourage young people to consider working in the sector. This includes support from schools, employers, professional associations, government and the main influencers on young people.

5.1 Areas for further research

The review has highlighted a number of gaps within the literature relating to home building, which the empirical element of this project should help to address. However, there are also a number of areas for additional inquiry, which include research:

- that looks at young people's views on individual careers within the home building footprint and what specifically is putting them off working in the sector;
- that explores young people working in the sector, looking at the reasons why they chose to work in the sector; and
- that explores employers views, to identify how they believe they could support more young people to work in the sector.

6 Annex 1: Methodology

6.1 Literature Review

The methodology for this literature review was based on our own knowledge of the field, findings from the call out for evidence, database searches of British Educational Index, Expanded academic, Web of Knowledge, Construction Information Service and EBSCO Business Source Premier.

These searches will be further supplemented by Google and Google scholar searches to identify further grey literature and key websites for the sector which will include industry bodies (e.g. NHBC, CITB etc.) and careers and recruitment sites (e.g. National Careers Service).

Keywords:

Home building, construction, home, house building, young people, career, higher education, universities, further education, learning and skills, skills, schools, colleges, work-based learning providers, ,barriers, enablers, support, NHBC, HBF, CITB, initiatives, toolkits, guides, planning, architecture, architect, technical design, interior design, sustainability specialists, green jobs, project management, procurement, logistics, commercial management, human resources, site management, site manager, bricklaying, carpentry, electrical, plumbing, interior design, land buying sales and marketing. These search terms will be supplemented with relevant database terms identified in initial searches.

The main research objectives related to this review are:

1. What are the key barriers to young people considering a career in house building?
2. What approaches are likely to be the most effective in raising young people's awareness and understanding of jobs and career opportunities in house building?
3. What recruitment and human resource development (HRD) practices are most effective in recruiting and retaining young people in house building?

To fully answer the main research questions we also explored literature describing or mapping who works in the sector and their demographic/regional profile.

Based on the review we will also developed a set of criteria for analysing and categorising industry sector initiatives which will be presented as a compendium of opportunities. The criteria for selection will include, target sector (e.g. home building, architects, construction), target audience (e.g. young people, graduates, women etc.) and type of resource (website, brochure etc.).

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