

# ICERES

Institute for Construction Economic Research

## **Apprenticeships in England: impoverished<sup>1</sup> but laddered**

Dr. Patrick McGurk  
University of Greenwich, U.K.  
and

Dr. Martin Allen  
University of Greenwich, U.K.



# Apprenticeships in England: impoverished<sup>1</sup> but laddered

Patrick McGurk and Martin Allen

## 1. Introduction

*Americans know little about apprenticeships. Those that do so believe they are only relevant to workers in construction trades. For elites, who have no relatives or friends who have completed an apprenticeship in construction or manufacturing, they are viewed as an anachronism. (Lerman, 2013, p. 110)<sup>2</sup>*

The above criticism, levelled at Americans by US Professor Robert Lerman, might also be fairly applied to the British. Despite the recent hype about apprenticeships in the UK, young people overwhelmingly choose to stay on in full-time education, with a view to going on to university. There is much ignorance and misconception about apprenticeships, although this is understandable. The traditional apprenticeship model, still ingrained in the popular consciousness, has over the past two decades been confused and complicated by an extraordinary array of reforms. These have resulted in a wide variety of programmes, and a situation whereby 16-19 year-old apprentices are outnumbered by the over-25s.

After their heyday in the late-1960s, apprenticeships in the UK had almost completely disappeared by the 1980s. Their relaunch and modernisation in the mid-1990s was needed in order to reflect a changed workforce and workplace; however continual subsequent reforms and abuses of the targets and funding systems have served to devalue the term 'apprenticeship', once widely understood as a hallmark of technical quality and craft-level skills. The one positive aspect of the contemporary system is the unified qualification framework within which apprenticeships sit. In theory at least, the qualifications framework enables low-achievers at school, or those who initially choose the vocational over the academic route, to progress to qualified occupations or switch between pathways, including progression to university. (In practice, however, progression and ongoing skill development have been very limited). In summary, the contemporary apprenticeship system may be described as 'impoverished but laddered'.

This paper explains the above assessment through three further sections. Section 2 outlines the development of the contemporary system of apprenticeships in England<sup>3</sup>, including an explanation of how today's policymakers seek to achieve a coherence and standardisation within a highly fragmented provision. Section 3 evaluates the performance of contemporary apprenticeships in England, particularly in terms of completions and quality; this section also includes a case study on apprenticeships in the building and construction sector. Section 4 assesses the future prospects of

---

<sup>1</sup> The term 'impoverished' is credited to Alison Fuller and Lorna Unwin (Fuller & Unwin, 2011a, p. 29).

<sup>2</sup> Also cited in book review of Fuller and Unwin (2013) by Pilz (2013).

<sup>3</sup> Apprenticeships in Scotland, Wales and Northern Ireland, due to devolved government, have different responsibility and funding arrangements, and operate variations on the English apprenticeship system.

the English apprenticeship system in the light of recent reforms to funding and regulations, and fresh government ambitions to grow the provision of apprenticeships. In addition, it asks what might be learned from more successful European models.

## 2. The development of the contemporary apprenticeship system in England

Traditionally, apprenticeships have been associated with the vocational preparation of school-leavers, typically in craft and technical fields. This involved a combination of employer-based training and college-based education; programmes tended to last around three years and lead to a recognised occupational qualification (Gospel, 1995). Apprenticeships have therefore been largely understood as a vocational alternative to post-compulsory full-time general education in school or college, with the latter providing the main route to university. This simple picture is, however, far from accurate in contemporary England. The number of officially registered apprentices has more than doubled in the past decade to over 800,000 in 2015 (Mirza-Davies, 2015b), now representing over 2 per cent of employed persons<sup>4</sup>. But what now counts as an apprenticeship, and who counts as an apprentice, has changed significantly since the mid-1990s.

To appreciate the scope of contemporary apprenticeship training in England, it is necessary to situate it within the wider national qualifications framework. There are currently three main types of apprenticeships in England: *Intermediate*; *Advanced*; and *Higher*. These sit within a qualifications framework of eight levels, encompassing all recognised academic and vocational qualifications in the country. The levels range from 'entry-level' certificates at Level 1, such as in basic English and Mathematics, to PhDs at Level 8. A tabular overview of the English qualifications system and a glossary of acronyms is provided in Appendix I.

Within the English qualifications framework, apprenticeships break down as follows.

- *Intermediate Apprenticeships*: these are Level 2 programmes, considered equivalent to a good set of school-leaving certificates (i.e. five 'GCSEs' at grades A-C).
- *Advanced Apprenticeships*: these are Level 3 programmes, considered equivalent to two academic 'A levels' or a vocational qualification taken full-time over two years at a school or college (typically the 'BTEC National'). The Advanced Apprenticeship is the closest approximation to the traditional apprenticeship.
- *Higher Apprenticeships*: these can be either Level 4 or 5 programmes. Introduced in 2011, they are considered equivalent to the first and second years respectively of an undergraduate university degree programme. (In addition, in 2015, the government also announced the recognition of *Degree Apprenticeships* at Levels 6 and 7, to be integrated within new university degree programmes (SFA, 2015c), but the full details on these new qualifications are as yet unclear).

The relative importance of each type of contemporary apprenticeship will be outlined in detail in Section 3. However, it is important to point out from the outset that the recent expansion of apprenticeships in England has been fuelled mainly by the growth of Intermediate Apprenticeships

---

<sup>4</sup> This still compares unfavourably with Switzerland, Germany and Australia, where around 4 per cent of employed persons are registered apprentices (Steedman, 2010).

among the over-25s. Advanced Apprenticeships, which might be expected to be the main type and to be dominated by young people, represent only around a third of total apprenticeship registrations.

With regard to the under-19 age group, it is instructive to consider the wider educational choices at post-16 years in England. As Professor Alison Wolf explains in her 2011 review of vocational education for the UK Government, there are around 600,000 school students completing their mandatory pre-16 education each year in the UK. Around two-fifths of this group follow a two-year full-time Level 3 academic route ('A levels'), with approximately another fifth taking full-time Level 3 vocational or advanced craft programme (the vast majority of which are 'BTEC Nationals'), also lasting two years. Level 2 qualifications account for around a further fifth per cent of the school-leaving cohort, typically lasting one year. Approximately one tenth of the school-leaving cohort ends up not in education, employment or training ('NEETs') (Wolf, 2011, p. 51). Less than a tenth of school-leavers go on to apprenticeships, and they tend to follow the lower-level Intermediate programmes, lasting typically one year.

The preference among school-leavers for full-time education over apprenticeships is to some extent a general trend across the OECD (Wolf, 2011). The relative decline of manufacturing, where there had been large numbers of traditional apprenticeships, and the gradual raising of compulsory school-leaving ages have meant that full-time education has become the norm. In England, however, especially significant has been the increase in provision of full-time vocational educational qualifications for young people delivered by schools and colleges, rather than workplace-based apprenticeships. The preference for full-time education over apprenticeships was further accentuated in recent years, with new law coming into effect in 2013 so that all 16-17 year olds in England, and all 16-18 year olds from 2015, remained in some form of education and training. In consequence, employers have been increasingly reluctant to take on young people until they complete their general school education (Wolf, 2011, pp. 29–30). For employers to take on slightly older apprentices in preference to 16 year-olds is not necessarily aberrant. In Germany, for example, it is normal for apprenticeships to be started at post-18 years. However, here the comparison between England and Germany ends, as around two thirds of all German school-leavers complete an apprenticeship by the time they are 25, representing an usually high proportion of technical qualifications by international standards and dwarfing the equivalent group in England (Wolf, 2011, p. 25).

The English apprenticeship system is therefore complex and has changed rapidly over the past four decades. For those born in 1958 and leaving school in the mid-1970s, traditional apprenticeships, which would now be considered Level 3 programmes, were the dominant option. For those born in 1970 and leaving school in the mid-1980s, apprenticeships had more or less disappeared as an option and been replaced by a variety of vocational qualifications (Wolf, 2011, p. 70). Since the 1980s, Level 2 programmes have seen rapid growth, but are typically delivered by schools and colleges without significant employer involvement. There is also widespread scepticism and concern about the quality and value of these Level 2 qualifications. In particular Wolf (2011, 2015) has reported low levels of completion and progression to Level 3, and negligible returns in terms of increased earnings for completers. Several highly regarded and oversubscribed apprenticeships do still exist, particularly in engineering. But overall, reforms to vocational training in England have served to create, as Gospel (1998, p. 450) has put it, "high-skilled islands within a low-skilled sea".

To understand how apprenticeships in England have changed from their traditional model to the current provision, it is helpful to examine the following three milestones: i) the creation of 'Modern Apprenticeships' in the mid-1990s; ii) the establishment of the National Apprenticeship Service (NAS) in 2009; and iii) the introduction of employer-led 'Trailblazer' apprenticeships in 2012.

### *Modern Apprenticeships*

Modern Apprenticeships lay the ground for contemporary apprenticeships in England. The then Conservative government introduced Level 3 Modern Apprenticeships in 1994, which were significant in three main ways. They: i) broadened sectoral coverage, ii) re-regulated delivery and assessment; and iii) led to the differentiation of levels.

Firstly, in terms of sectoral coverage, Modern Apprenticeships were created in parts of the economy in which apprenticeships had not traditionally existed, such as in the service sectors of retailing, health and social care (hence the term "modern"). Also, these newer sectors tended to be female-dominated, so Modern Apprenticeships represented a break from the traditional association of apprenticeships with male-dominated environments of engineering and construction (although the female-dominated apprenticeships in hairdressing were longstanding). Consequently, there was rapid growth in the number of occupational sectors with recognised Modern Apprenticeships, from 14 in 1994 to over 80 by 2004. The greatest single group of apprenticeships was in Business Administration, a 'sector' in which apprenticeships had not traditionally existed. In addition, other new sectors such as Retailing and Customer Service were in the top ten, alongside the traditional sectors of engineering, manufacturing, construction and hairdressing (Fuller & Unwin, 2003, p. 7). Modern Apprenticeships did not, however, seem to do anything to change the gendered nature of occupations, instead reproducing old patterns. Campbell, Thomson and Pautz (2011) show that even fifteen years after the introduction of Modern Apprenticeships, around 60 per cent of females on Modern Apprenticeships were concentrated in only five sectors, four of which had female concentrations of over 80 per cent.

Alongside their expansion to newer sectors of the economy, Modern Apprenticeships also represented an attempt to emulate other European systems of vocational training. In particular Germany had established apprenticeships across new and old employment sectors, while retaining a reputation for upholding high standards of quality. In the English reforms of the 1990s, the retention of the term "apprenticeship" was therefore a deliberate signal to emphasise that the new qualifications would uphold the standards of quality training with which apprenticeships had been popularly associated (Fuller & Unwin, 2003). It also served as an attempt to insulate the reputation of Modern Apprenticeships from the discredited Youth Training schemes of the 1980s, which were typically Level 2 programmes used as a state-funded means of alleviating youth employment during a period of economic crisis (Fuller and Unwin, 2003; Gospel, 1998). In practice, however, Modern Apprenticeships were neither a qualitative break from earlier Youth Training schemes, nor comparable to the apprenticeships of their European counterparts in terms of quality and rigour (Fuller & Unwin, 2003; Ryan & Unwin, 2001; Steedman, 2001).

The second main way in which Modern Apprenticeships were significant was in the altering of regulatory arrangements, which remain fundamentally unchanged twenty years later. Traditionally, apprenticeships had been regulated by collective bargaining agreements at workplace- or industry-

level, through non-binding agreements between employers, government and trade unions. Alongside these tripartite arrangements, a set of state-approved vocational certificates had developed, involving further education colleges to provide the necessary off-the-job teaching and administer the qualifications from recognised awarding bodies (principally City and Guilds or the Business and Technology Education Council (BTEC)). Also, an employer-levy system had been established through the Industry Training Boards to spread training costs and disincentivise poaching (Gospel, 1998). Under Modern Apprenticeships, however, as part of an ideological reaction against tripartitism (Gospel, 1998), the responsibility for regulating apprenticeships shifted to new, employer-dominated 'Industry Training Organisations' (later to become 'National Training Organisations', then 'Sector Skills Councils'). Moreover, the responsibility for the local coordination of apprenticeship places was given to local 'Training and Enterprise Councils' (TECs) (later to become 'Learning and Skills Councils'); these were employer-led voluntary bodies that had been heavily involved in the administration of the above-mentioned Youth Training schemes.

The new institutional arrangements were intended to place the ownership of apprenticeships in the hands of employers. Parallel to the push for greater employer involvement was the encouragement to contract more private training providers to deliver apprenticeships, on the assumption that they would better meet employers' skill requirements and make training more specific to the individual workplace. In practice, however, real engagement by employers in the design, delivery and assessment of the new qualifications proved minimal, effectively resulting in a state-driven system of apprenticeship training, increasingly delivered by private training contractors (Gospel, 1998; Grugulis, 2007; Ryan & Unwin, 2001). These regulatory changes set in train a longstanding pattern of practical employer disengagement with government training initiatives in general (Brockmann, Clarke, & Winch, 2010; Hasluck, 2011; Keep & James, 2011; McGurk, 2014).

The new regulations also included radical changes to apprenticeship training content and assessment. Modern Apprenticeships were designed around 'National Vocational Qualifications' (NVQs), which adopted a 'competency-based' approach, favouring workplace-based observations and evidence portfolio assessments over formal examinations. Although the competency-based approach served to recognise the broader skills and abilities of apprenticeships in the workplace, it also led to real concerns about the lack of technical rigour and breadth of knowledge acquired through Modern Apprenticeships. The government attempted to rectify this through the integration in 2002 of 'Technical Certificates' into Modern Apprenticeship programmes to certify the acquisition of broad-based knowledge through off-the-job vocational education programmes of study (Fuller & Unwin, 2003, p. 8). However, the Technical Certificates were slow to be developed in many sectors and were finally abolished as a regulatory requirement in 2006 (Fuller & Unwin, 2008a, p. 14).

The third main way in which Modern Apprenticeships were significant, related to the above-described liberalisation of delivery and assessment, was in the eventual differentiation of levels of apprenticeship. As part of its policy agenda to promote youth jobs and social inclusion (Fuller & Unwin, 2011a; Steedman, 2011), the new Labour government created in 2002 the Level 2 *Foundation Modern Apprenticeship*, and rebranded the original Level 3 programme as an *Advanced Modern Apprenticeship*. Although this reform served to bring more people into vocational training than ever before (Fuller & Unwin, 2008a; Wolf, 2011), it expanded the competence-based approach and exacerbated concerns about the dilution of the apprenticeship 'brand'. The new Level 2 apprenticeship also broke the convention that apprentice should hold employee status (Fuller &

Unwin, 2003). The traditional contractual arrangement had been that the state would pay for the costs of off-site training, while the employer paid the apprentice a wage, typically set low by the employer in order to offset the on-the-job training costs over a 2-3 year period (c.f. Marsden & Ryan, 1990). However, *Foundation* apprentices, unlike *Advanced* apprentices, were not required to have employment contracts and, under some schemes, the wages that were paid to them were subsidised by the state.

The introduction of Foundation Modern Apprenticeships was largely a product, as with the Youth Training of the 1980s, of a government 'guarantee' of a Level 2 training place to any adult without a full-time job or a previous Level 2 qualification (c.f. Keep & James, 2012). In order to meet the guarantee, varieties of Level 2 apprenticeships emerged, notably 'programme-led apprenticeships'. These were front-loaded college- or training provider-based courses, followed by periods of work experience (Fuller & Unwin, 2008a). While not necessarily resulting in lower quality training, programme-led apprenticeships compounded the disengagement of many employers and further diluted the long-established apprenticeship training model of on-the-job learning combined with ongoing release for general off-the-job education. Programme-led apprenticeships were eventually abolished by the Conservative-Led Coalition government of 2010, but they crystallised the multiple ways in which the original Level 3 Modern Apprenticeship of 1994 had come to be devalued.

#### *A National Apprenticeship Service*

After various commissioned reviews and piecemeal reforms, the creation of the NAS for England, under the Apprenticeship, Skills, Children and Learning Act 2009, represented the Labour government's attempt to consolidate what had become a very fragmented apprenticeship system. Organisationally, responsibility for Modern Apprenticeships had been shared across six government agencies. The NAS became the new government agency to oversee and promote the different types of apprenticeships, provide advice to learners and employers and administer an online clearing service for apprenticeship vacancies. The NAS was a sub-agency within what became the 'Skills Funding Agency' (SFA) located in the government Department for Business, Innovation and Skills, which oversees 'adult skills'. Confusingly, however, apprentices aged up to 19 years remained the responsibility of the Department for Education. This continued split in responsibility, along with the sub-agency status of the NAS, is symptomatic of a still fragmented and unusually complex system for apprenticeships in England (c.f. Wolf, 2015).

The NAS presided over a rebranded set of apprenticeships, covering by then over 200 occupations. Foundation and Advanced Modern Apprenticeships had since been replaced in 2003 with the above-mentioned Intermediate and Advanced Apprenticeships (Higher and Degree Apprenticeships followed later in 2012 and 2015 respectively). An 'Apprenticeship Blueprint' set out minimum standards of apprenticeship quality to which all apprenticeships had to conform. The blueprint was eventually published in May 2012 as 'The Specific on Apprenticeship Quality' and revised as the Specification of Apprenticeship Standards for England (SASE) in September 2015 (DBIS, 2015d). According to the SASE all apprenticeships in England must:

- last a **minimum length of 12 months** (although some apprentices aged over 19 may complete an apprenticeship in six months according to prior qualification);

- follow at least **280 hours of “guided learning”**, that is time spent developing technical skills, knowledge of theoretical concepts and practical skills on the job, with at least 100 hours delivered off-the-job and with training costs shared equally between the government and the employer (except for 16-18 year olds, the training costs for whom are fully met by the government);
- employ apprentices for **at least 30 hours a week**, at the apprenticeship minimum wage (rising to the National Minimum Wage after 12 months), including time training away from the workplace (although an minimum of 16 hours a week applies in exceptional circumstances);
- include **training to level 2 in Maths and English** if the apprentice does not already have these or equivalent qualifications (plus requirements to meet appropriate standards in other skill areas such as ‘teamworking’ and ‘creative thinking’);
- have a signed, non-legally binding **Apprenticeship Agreement** between the apprentice and the employer, stipulating the framework being followed and the relevant skill, trade or occupation; and
- conform to a **Specification of Apprenticeship Standards for England (SASE)**, which sets out minimum academic requirements. (Mirza-Davies, 2015a)

The funding of apprenticeships is split between the state and the employer according to apprentices’ ages and the size of the employer. So the Department for Education funds 100 per cent of training costs for apprentices aged 16-18 years, while the Department for Business Innovation and Skills provides 50 per cent of the training costs if the apprentice is aged 19-23 and up to 50 per cent of the training costs if the apprentice is aged 24 and over. Small businesses with less than 50 employees are eligible for an initial £1500 grant if they employ a person under 25 on an apprenticeship.

The creation of the NAS and its surrounding reforms succeeded to some extent in consolidating the apprenticeship system. But, as several commentators have argued (Fuller & Unwin, 2011a, 2011b; Steedman, 2010, 2011; Wolf, 2011, 2015), the minimum standards over which it presides fall very short against international comparators. Particularly the 12-month minimum length of the apprenticeship, but also the relatively low expectations of prior achievement in English and Maths and the requirements within SASE, compare very unfavourably with European counterpart systems such as in Germany, Austria and Sweden, where apprenticeships last considerably longer and are academically more rigorous. Moreover, while the NAS may appear to unify the English system, it is in effect a small coordinating organisation for an extraordinarily complex network of other organisations involved in the designing, funding, promoting, delivering, assessing and quality-assuring of apprenticeships.

The growth of ‘Apprenticeship Training Agencies’ (ATAs) alongside private training providers has further complicated the institutional picture in England. ATAs are private organisations that find ‘hosting’ businesses in which apprentices on approved programmes may complete the on-the-job requirements of the qualification. ATAs therefore act as the direct employers of apprentices, receive the corresponding government funding, and charge a fee from the host employer in return for handling the necessary administration associated with the apprenticeship. Recognised from 2009 onwards, there are currently just under fifty licensed ATAs (SFA, 2015b). From the employer’s point of view, their apprentices may be contractually no different to ordinary employees. But the handing

over of significant recruitment responsibilities to ATAs necessarily influences actual employment practices, and ATAs have been criticised by trade unions for promoting ‘casualisation’ (Unionlearn, 2011). The increasingly significant role played by ATAs, in addition to the state-driven management of apprenticeship places, has helped to distance employers further in their relationship with apprentices. The above-described institutional obscurity and complexity, combined with a generally low set of expectations around apprenticeship quality control, particularly at Level 2, have served to encourage abuses of the system (see further in Section 3). This amounts to what Fuller and Unwin have described as an “impoverished” model of apprenticeship in England (Fuller & Unwin, 2011a).

The above examination of the institutional arrangements for apprenticeships highlights a key weakness of the English system: the lack of employer engagement. The unwillingness of employers to take on apprentices to the same extent as their counterparts in Europe, or to provide training generally, is a longstanding and well-documented problem of the ‘voluntarist’ system of industrial training in the UK (Grugulis, 2007). However, the increasing use of ambitious government targets for growing apprenticeship places through the NAS – notably as a means of reducing unemployment and promoting labour market participation and social inclusion - has served to disengage employers further from the system and encourage their reliance on the state to provide their training for them. Meanwhile, the institutional framework that has developed around apprenticeships has incentivised the provision by training organisations of short, easy-to-deliver training packages that may qualify for funding, but which result in poor quality and low returns for employers, apprentices and the government (Wolf, 2015).

Increasing employer dissatisfaction with the quality of apprenticeship training was an important driver behind the latest twist in government policy. In 2012, the newly elected Conservative-Led Coalition government commissioned another root-and-branch review, this time by high-profile entrepreneur Doug Richard (BIS, 2012). The Richard Review, though very supportive of the apprenticeship brand, recommended radical reform in order to meet employers’ needs, including new employer-designed and –led ‘Trailblazer’ apprenticeship pilots.

#### *Trailblazer Apprenticeships*

The defining feature of Trailblazer Apprenticeships is ‘employer ownership’, which – at least in principle – marks a significant departure from the state-driven reforms characteristic of the English system since the introduction of Modern Apprenticeships. Developed from 2013 onwards by voluntary ‘employer networks’, Trailblazer Apprenticeships were to have four key aims. To quote the government’s implementation plan, these were to:

**Put employers in the driving seat.** Apprenticeships will be based on standards designed by employers, making them more relevant and therefore more attractive to existing and new employers.

**Increase the quality of apprenticeships.** An apprentice will need to demonstrate their competence through rigorous and holistic assessment. This will focus on the end of the apprenticeship to ensure that the apprentice is ready to progress.

**Simplify the system.** The new employer-designed standards will be short and easy to understand. They will describe the skills, knowledge and behaviour that an individual needs to be fully competent in an occupation.

**Give employers purchasing power.** Putting control of government funding for the external training of apprentices in the hands of employers, to empower businesses to act as customers, driving up the quality and relevance of such training. (DBIS, 2014)

By July 2015, employer networks had generated 140 Trailblazers across various sectors, involving over 1,200 employers, and produced 129 set of occupational standards (45 of which were Higher and Degree Apprenticeships). Another 220 or so new standards were in development. Because they are the new model for future apprenticeships in England, Trailblazers are central to the government's pledge to create three million new apprenticeship places between 2015 and 2020 (Mirza-Davies, 2015a). Examples of the curriculum content of and methods of assessment used in the Trailblazer apprenticeship standards approved to date are provided in Appendix II.

The question of whether Trailblazer Apprenticeships will lead to more meaningful employer engagement, and whether they are likely to be successful in helping to meet the government's aims will be examined in Section 4. Also included in Section 4 is a discussion of the final significant policy announcement on apprenticeships to date: that of an employer levy to create a collective apprenticeship fund. First, however, Section 3 presents a detailed assessment of the performance of the current apprenticeship system.

### **3. The performance of the contemporary apprenticeship system in England**

Under the arrangements described in Section 2, well over two million new funded apprenticeships have been created since 2010, although the government's intention to create three million more by 2020 looks questionable. This section provides a detailed examination of the types and the levels at which apprenticeships have been offered, the profile of the apprenticeship population and the economic sectors where they have been primarily established. It argues that the performance of apprenticeships in England has fallen far short of expectations.

In addition to its overall assessment of apprenticeship system, Section 3 provides a case study of apprenticeships in building and construction. Despite reports of skills shortages, the sector has continued to experience relatively low levels of apprenticeship starts. While the lack of recruits in building and construction reflects the more general problems with apprenticeships, the sector-specific case sheds light on the impact of wider changes in employment practices and the demographics of the labour force, therefore putting the more general issues in sharper context.

#### *Growth and quality of apprenticeships in England 2010-2015*

As part of his 2015 General Election campaign, the Prime Minister David Cameron was able to confirm two million new apprenticeship starts while the Coalition government had been in office. On re-election, he promised to create a further three million by 2020 (BBC News, 2015). Table 1 shows how apprenticeships in England have grown at the rate of approximately half a million starts per year (see column 2).

**Table 1 Apprenticeship starts and completions in England 2010/11-2014/15**

	<i>Number of starts</i>	<i>Number of completions</i>	<i>Percentage of completions based on year started</i>
2010/11	457,200	-	-
2011/12	520,600	200,300	76.4%
2012/13	510,200	258,400	73.2%
2013/14	440,400	252,900	72.3%
2014/15	492,700	255,800	68.9%

Source: Skills Funding Agency Statistical First Release 15 October 2015 (SFA, 2015d)

Table 1 also shows the number of Apprenticeship completions over the same period, and demonstrate a reasonably consistent rate of approximately 250,000 per year (see column 3). However, because apprenticeships are offered at different levels and therefore last different amounts of time, data on apprenticeship completion are not as meaningful as those showing apprenticeship starts, and must be scrutinised carefully. As will be clear, the large majority of apprenticeship starts in the UK apprenticeship system have been at Intermediate Level, generally lasting for only one year. This short duration for most apprenticeships results in a completion rate of approximately 70 per cent (see column 4), although this varies from sector to sector. As contemporary apprenticeships in England are designed to provide training for specific jobs, then apprenticeship completion rates will also reflect turnover in these jobs. To concentrate on the number of apprenticeship starts, therefore, provides only a limited assessment of apprenticeship progress.

As well as examining the various levels at which apprenticeships are being offered, it is also necessary to examine the age of those starting. Table 2 shows the age composition of the apprenticeship population.

**Table 2 Apprenticeship starts by age 2010/11-2014/15**

	<i>Under 19</i>	<i>19-24 years</i>	<i>25 and over</i>
2010/11	131,700	143,400	182,100
2011/12	129,900	161,400	229,300
2012/13	114,500	165,400	230,300
2013/14	119,800	159,100	161,600
2014/15	124,400	158,200	210,100

\*provisional figure for Aug 14 to April 15

Source: Skills Funding Agency Statistical First Release 15 October 2015 (SFA, 2015d)

Although apprenticeships have traditionally been considered to be for young people, particularly as an alternative to entering higher education, Table 2 demonstrates how the expansion of

apprenticeships in England has been dependent on the high level of enrolments by adult workers (those over 25). Part of the explanation may lie with the guidance given to young people; indeed, schools have been criticised for not promoting apprenticeships with the same level of enthusiasm they display towards higher education. The Sutton Trust, for example, analysing among other things teachers' views of apprenticeships, found that 65 per cent of teachers would rarely or never advise students to take an apprenticeship if they achieved the grades for university (Kirby, 2015). Meanwhile, according to Ofsted, the school inspectorate service for England and Wales, only one in five schools offered good quality of careers advice and guidance (HoC Education Committee, 2015).

Yet the failure of educational institutions to promote apprenticeships to their students is not the main reason for only a minority of young people taking up apprenticeships. The rapid growth in Intermediate apprenticeships among adults has much to do with abuses of the funding system. In particular, there has been serious concern about the number of employers converting existing staff into registered apprentices as a result of being approached by one of the private sector training providers able to claim central government funding for providing apprenticeship training. Essentially training providers have been adopting short-term, profit-maximising strategies, offering quick returns in the form of completion of Level 2 qualifications rather than proper skills-development (Ainley & Allen, 2014; Wolf, 2015). This approach has therefore also allowed the National Apprenticeship Service and central government to claim that apprenticeships have continued to expand and growth targets continued to be met.

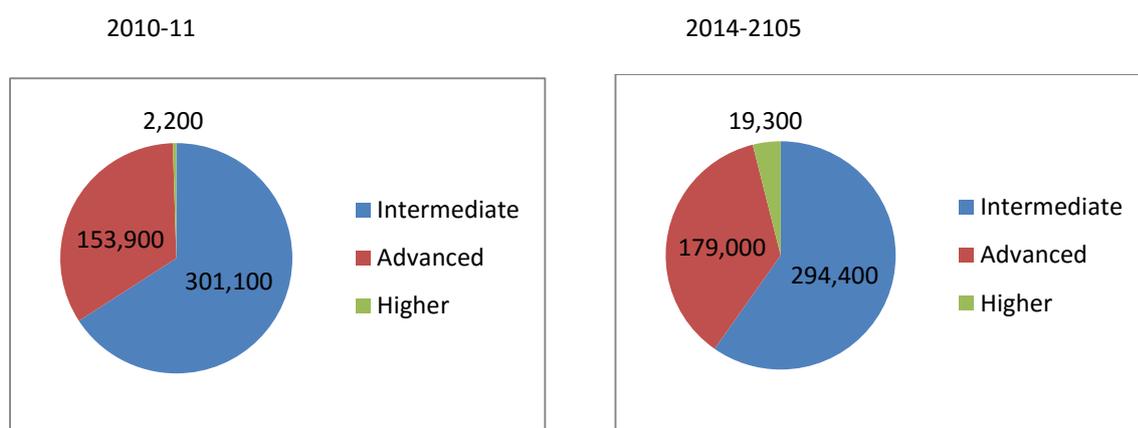
With regard to abuses of the funding system, an investigation by BBC's *Panorama* (2 April 2012) notably found that nearly 4 in 10 of supermarket chain Morrison's entire workforce had been reclassified as 'trainees', resulting in 1 in 10 of all apprenticeships in England during the previous year originating from this one employer. Elmfield Training, the provider used by Morrison's, received government funding in total worth £37 million. Furthermore, rather than the planned 56 weeks' training duration, Elmfield was taking just 28 weeks to provide 'accreditation' (Ainley & Allen, 2014, p. 9). The government subsequently decided not to renew the contracts of such 'rogue' providers, which is a possible explanation for the decrease in the number and the proportion of starts by older workers between 2012/13 and 2013/14 (see Table 2). The Richard Review (2012) had also recommended that apprenticeships should only be available for new roles and new jobs, yet a survey conducted for the Department for Business, Innovation and Skills two years later still showed that 82 per cent of apprentices in hospitality and catering, 63 per cent of those in hairdressing and over half of those in construction and business were already existing employees (Winterbotham, Davies, Murphy, Huntley Hewitt, & Tweddle, 2014).

A more helpful indication of the real provision of apprenticeship places is that of 'external vacancies', for which particularly young people may be expected to apply, rather than those filled internally in firms by existing employees. Surveys have however reported a shortage in the number of external vacancies in comparison to demand. As a Parliamentary Committee noted, in 2013/14 alone there were 939,270 applications via the apprenticeship vacancies website from 16 to 18 year olds, nearly eight times the number of apprenticeships started by 16-19 year olds in total that year (HoC Education Committee, 2015). Similarly, NAS figures show that almost 461,500 new applicants submitted online applications between August and October 2013, representing an increase of 43 per cent, while vacancies increased by only 24 per cent (NAS, 2014).

Behind the apparently impressive growth in apprenticeships in England over the past five years, therefore, lies a weak supply of new apprenticeships for young people. There was a modest increase in the number of starts among 16, 17 and 18 year-olds in England in 2013/14 compared with the previous year, up to 119,760 from 114,550. But it is still the case that, as the Parliamentary Committee records, just 5 per cent of the age group take up an apprenticeship at age 16, remaining unchanged since 2011/12 (HoC Education Committee, 2015). The shortage of new apprenticeship opportunities for young people led the then Skills Minister Matthew Hancock to concede that “with each online position attracting an average of 12 applications demand continues to outstrip supply”, and to urge more employers to increase their supply (The Guardian, 2014, 5 February). However, employer engagement in apprenticeships has not increased significantly. As a recent ‘Employer Perspectives Survey’ conducted by the UK Commission for Employment and Skills found, only 9 per cent of employers took on an apprentice in 2012, rising to only 10 per cent over the next two years (cited in HoC Education Committee, 2015).

In addition to wide variations by age and form of supply, there were imbalances in the levels of the new apprenticeships created from 2010. As well as being made up of a large number of existing adult workers, Figure 1 shows that although the number of Advanced and Higher Level numbers have increased, the majority of apprenticeship enrolments have continued to be at Intermediate Level. This is a training equivalent to the GCSE examination standard that around 70 per cent of 16 year olds in England and Wales achieve in full-time education. As a result, school leavers starting year-long Intermediate Level schemes are not likely to progress in qualification terms. Neither does completion of an Intermediate Apprenticeship by a young person typically lead to progression onto an Advanced Apprenticeship. University of Greenwich research for the Department of Business, Innovation and Skills (Joslin & Smith, 2013) shows that between 2004/5 and 2010/11 only half of Advanced Level apprentices, of which there were considerably less, progressed via an Intermediate scheme, and that only 60 per cent of those progressing were under 19 years.

**Figure 1 Apprenticeship starts by level in 2010-11 and 2014-15**



Source: Skills Funding Agency Statistical First Release 15 October 2015 (SFA, 2015d)

That the majority of schemes continue to be at Intermediate Level is of chief concern. Firstly, such schemes are pitched well below the ‘technician’ or type of intermediate skill level that Modern Apprenticeships had been designed to address (Steedman, Gospel, & Ryan, 1998). Secondly, Intermediate Apprenticeships cannot be seen as a credible alternative to entering higher education for young people. The number of Advanced level starts, though increasing, is still extremely low compared, for example, with the 850,000 entries for A levels in the summer of 2014. For the academic year 2014/15, of 179 000 Advanced Apprenticeship starts, only 38,600 (21.6 per cent) were by under-19 year-olds (SFA, 2015d).

The Higher Apprenticeship, created in December 2011, was designed as an equivalent to studying at undergraduate degree level, or at least the early years of university. According to the then Business Secretary Vince Cable:

Investing in skills is central to our drive to boost business and productivity and make the UK more competitive... [B]y radically expanding the number of degree level apprenticeships for young people, we will put practical learning on a level footing with academic study. This is an essential step that will help rebalance our economy and build a society in which opportunity and reward are fairly and productively distributed. (cited in FE Week, 2011, 1 December)

Yet while the number of Higher Level apprenticeship starts has continued to increase significantly, they still represent only a tiny fraction of the total number. Just under 30,000 registered Higher Apprentices existed at the end of 2014/15, with 19,300 new starts during that year; however, only just over 1,000 of these starts were by under-19 year olds as compared to the near 15,000 starts by those over 25 (SFA, 2015d). There are some very high quality schemes among these, including a number that involve completing a degree (Ainley & Allen, 2014), but given the tradition whereby British employers sponsor university education for future employees, and with comparatively large numbers of ‘oven-ready’ potential recruits leaving university every year, it is not clear why larger numbers of employers would want to invest the considerable amount required to finance a Higher Apprenticeship (or on one of the new Degree Apprenticeships being proposed in 2015).

In terms of the overall performance of the apprenticeship system in England, therefore, the quality of the dominant Intermediate Apprenticeships is of key interest. Competency-based NVQs are main form of accreditation at this level, along with a requirement for secondary school level GCSE passes in Maths and English, or an alternative ‘certification of competence’ in the ‘Functional Skills’ of English and Maths for apprenticeship schemes without GCSE qualifications in them. There has been longstanding criticism of NVQs for the way they concentrate on practical outcomes at the expense of developing knowledge and technical understanding (Ainley & Allen, 2014). With regard to their use in apprenticeships, as Wolf (2015, p. 6) highlights, the concentration on such shorter schemes that are easier to pass has involved less risk for training providers: “The less progress that is demanded of the learner, the more confident ‘providers’ can be of receiving full outcomes-based payment”. Or in other words, “hundreds of thousands of young people are being encouraged into low-skill, low pay, on-the-job training schemes to meet ministers ‘mad’ targets of creating three million apprenticeships by 2020” (The Independent, 2015, 30 August).

The government inspectorate Ofsted has also been highly critical of the narrowness and the quality of training that it observed in a third of apprenticeships in its sample:

Inspectors, observed for example, apprentices in the food production, retail and care sectors who were simply completing their apprenticeship by having existing low-level skills, such as making coffee, serving sandwiches or cleaning floors, accredited. While these activities are no doubt important to the everyday running of the businesses, as apprenticeships they do not add enough long-term value. (Ofsted, 2015, p. 4)

Ofsted also noted that “Some learners on low-level, low-quality programmes were unaware they were even on an apprenticeship” (2015, p. 4); this was mostly the case with apprentices over 25 who in many cases had “little or no formal training” (2015, p. 10).

Underlying the criticism of the quality of Intermediate Apprenticeships is the proliferation of apprenticeships in service industries in comparison to manufacturing, with which apprenticeships are traditionally associated. Finn (1987, p. 46) shows how in 1964, 37 per cent of boys and 35 per cent of girls entered manufacturing. However, by the new millennium manufacturing employed just 12.1 per cent of the entire workforce, falling to 7.8 per cent by 2014; according to the Office for National Statistics, in 2015 ‘Health’ was the largest single employment sector with 3.7 million employees, as compared with 2.7 million in Retail and 2.3 million in Manufacturing (ONS, 2015b). The Low Pay Commission shows, however, that is in the dominant sectors of Retail and Social Care, where low-wage employment is most likely to be found (LPC & BIS, 2015). Against this background of changed sectoral employment, Table 3 shows how the distribution of apprenticeships in 2015 reflects the relative importance of different sectors in the contemporary UK economy.

**Table 3 Apprenticeships by sector in 2010/11 and 2014/15**

	2010/11	2014/15
Business, Administration and Law	133,820	141,080
Health, Public Services and Care	89,900	127,940
Retail and Commercial Enterprise	102,770	88,510
Engineering and Manufacturing Technologies	54,640	72,940
Construction, Planning and the Built Environment	22,420	17,820
Information and Communication Technology	19,520	15,440

Source: Skills Funding Agency Statistical First Release 15 October 2015 (SFA, 2015d)

As Table 3 shows, although manufacturing and engineering apprenticeships continue to be significant, apprenticeships are now concentrated in the service sectors, notably in Business, Administration and Law, in which there is no longstanding tradition of apprenticeship training (c.f. Fuller & Unwin, 2003). Gender inequality also remains a significant dimension of the sectoral picture, as female employees tend to outnumber males in the large but lower-paying sectors, notably in Health, Public Services and Care. It is however worth noting that, at the other end of the educational spectrum, women outnumber men in university attendance (UCAS, 2015). Overall, the key concern about apprenticeship quality in England is therefore the proliferation of Intermediate Apprenticeships in low-wage, low-skill service sector environments, in which there is little tradition of advanced, rigorous, lengthy and high-quality technical training.

A related concern for policymakers is the low and recently declining participation of learners in 'STEM' subjects (Science, Technology, Engineering and Maths), which are considered essential for future economic development (see Vince Cable quote above). According to the Campaign for Science and Engineering (CASE), the number of STEM apprenticeships fell from 70,100 in 2012 to 65,190 in 2013/14 with only 360 starts in Science and Maths in 2013/14 (Turner, 2015). Perhaps more worryingly for policy makers, 60 per cent of STEM apprenticeships are at Intermediate Level, with only 1 per cent at Higher Level (Turner, 2015). The highest-quality and most sought-after Advanced high-tech apprenticeships are heavily oversubscribed, and it has become oft quoted that it is more difficult to get an apprenticeship place at British Aerospace or Rolls-Royce than to get into Oxbridge (The Guardian, 2013, 23 September). With further regard to other high-tech sectors, the NAS reported 26 applicants per vacancy for Arts, Media and Publishing apprenticeships and 20 per vacancy in Information and Communications Technologies (NAS, 2014).

In response to the above concerns about the future of technical apprenticeship training, Alison Wolf has argued that "What the government should be doing is concentrating on those high-value apprenticeships which teach vocational skills in manufacturing and engineering and which historically Britain is bad at fostering. The danger is that money and resources is put into hitting a meaningless numerical target" (cited in The Independent, 2015, 30 August). For a deeper contextual understanding of such issues, we now turn to the case of Building and Construction. This serves as a 'mid-range' example sector, in which there is a long tradition of apprenticeships, yet which brings into sharp relief the issues related to the contemporary apprenticeship system in England at the level of the individual employer.

#### *Apprenticeships in Building and Construction*

The Construction sector was recently highlighted by Ofsted (2015) as one of the sectors considered to be offering 'high quality' apprenticeships (alongside those in engineering and motor vehicles). As part of a long tradition in the sector, "apprentices learned new skills and employers ensured that apprentices were given work that allowed them to apply these skills in the workplace" (2015, p. 12). Due to the costs involved and the greater demands for technical compliance in comparison to other sectors, Construction also continues to have a Training Board and collect a training levy from its member employers – a legacy of the Industrial Training Boards of the pre-Modern Apprenticeship era (Abdel-Wahab, 2012; Forde & MacKenzie, 2004; Toner, 2008).

Problems with contemporary apprenticeship recruitment have however been particularly acute. The sector was severely hit by the economic downturn of 2008, which resulted in many construction companies collapsing. The size of the construction workforce fell from 2.5m to 2.2m with the number of bricklayers and masons working in Britain falling from 100,000 to 70,000 from 2008 to 2015 (The Economist, 2015). The general performance of the sector has continued to be erratic since 2008, with a fall in output in 2013 resulting primarily from public expenditure cuts and a subsequent loss of public contracts to the private construction firms (DBIS, 2013b). More recent surveys however show the demand for building services steadily increasing and wages rising, with the average salary in the sector reported to be increased by 14 per cent on the previous year (The Guardian, 2015a, 24 June). An important factor behind this increase appears to have been recent

government promises of a renewed housebuilding programme in response to the UK's accommodation crisis (CITB, 2015).

One of the effects of the recent upturn in the demand for construction services has been an exacerbation of skills shortages in the industry. According to a Federation of Master Builders (FMB) survey, two-thirds of building contractors recently turned down new work because of a shortage of resources, including difficulties in finding apprentices (CITB, 2015). The FMB reported that around 35,000 new apprentices per year were needed just to keep up with rising demand; they cite particular shortages in London for bricklayers, carpenters, painters and decorators and electricians. The FMB also argued that potential recruits were being held back from joining the industry due to pressure from parents to stay in full-time education. (In the UK, young people can leave school at 16 if they are entering work that also offers training.) The responsible government department, in its report observed that the construction sector had an 'image problem' that deters people from entering the industry, and that the construction industry as a career option for young people has weak appeal (DBIS, 2013b). Nonetheless, as will be shown, applications for apprenticeship places far outstrip the number of places started.

Part of the skills shortage problem is related to the demographic profile of the sector workforce. The building workers union UCATT, which has traditionally represented those working in building trades, continues to play a key role in the monitoring of apprenticeship recruitment. The union points out the impact of the ageing workforce in construction and claims that the number of apprentices being trained is 20,000 lower than the number of new entrants needed by the industry each year; it blames "a 30-year failure to train apprentices" (The Guardian, 2015b, 10 February). Official government statistics confirm the crisis in building and construction apprenticeships. There was a sharp fall in the number of apprenticeships starts at all levels in this sector from 2010/11 to 2013/15, thereby accentuating the huge predominance of Intermediate Apprenticeships (see Table 4). Within the total figures reported in Table 4 were 12,720 starts by under-19 year-olds in 2010/11, which fell to 8000 in 2013/14 (although provisional figures for the first 9 months of 2014/15 showed a marked increase at 16 090 starts).

**Table 4 Apprenticeship starts in Building and Construction**

	2010/11	2013/14
Intermediate	16 020	10,530
Advanced	6,400	2, 720
Higher	N/A	60

Source: Skills Funding Agency *Apprenticeship starts by Sector Skills Level* July 2014 (SFA/DBIS, 2015b)

With regard to completions, it is worth reporting that the industry house journal *Construction Manager* estimated that completion rates in the sector may be as low as 40 per cent with only 8,030 apprentices completing their training in 2013/14, in a fifth year of straight decline (Construction Manager Magazine, 2015). In addition, the government Department for Business, Innovation and

Skills confirm that the Building and Construction sector's completion rates are low compared to other sectors (DBIS, 2013b).

The problem of apprenticeship recruitment in the sector is not, however, entirely due to a lack of applications. Table 6 shows that there is no shortage of applicants for apprenticeship training in the building and construction sector, with easily enough applications – if not all suitable ones - to fill the apparent demand of over 30,000 apprentices per year. The data in Table 5 must however be treated with caution, as the online NAS vacancy listings for the sector include significant numbers of adverts for clerical, administrative and ICT (information and communication technologies) positions. On one sampled day (23 September 2015), for instance, there were 71 adverts for apprenticeships in bricklaying and 551 in plumbing, but these were easily outnumbered by vacancies for apprenticeships in occupations (including technical occupations such as gas engineering) that were peripherally rather than directly connected to construction and building.

**Table 5 Apprentice applications in Building and Construction**

2010/11	33,570
2011/12	40,970
2012/13	49,760
2013/14	68,230
2014/15	66,260

Source: SFA/DBIS FE Data Library (SFA/DBIS, 2015a)

The initial conclusion to be drawn, therefore, is that the crisis in Building and Construction apprenticeships, despite reported skills shortages, has multiple causes. These include the recent economic crisis, combined with a weak response by employers in terms of their offer of apprenticeship places, combined in turn with an apparent weak supply of young recruits. However, beneath the surface problem of weak and mismatched supply and demand for apprenticeship places are wider changes in the nature of employment and workforce recruitment to the industry in recent years. These have had a profound effect in limiting the effectiveness of the apprenticeship model of training. Three key developments may be identified: i) the rise of (false) self-employment; ii) the increased supply of European migrant workers; and iii) the increased use of subcontracting.

On the first issue of self-employment, the trade union UCATT (Union Of Construction Allied Trades & Technicians) estimates that up to 880, 000 workers in the Building and Construction sector, equivalent to approximately 40 per cent of the sector's workers and approximately 1 in 5 of the entire UK total of self-employed workers, are self-employed, with half of these 'falsely self-employed' (Harvey & Behling, 2008). False self-employment refers to the practice whereby employers regrade staff that would in previous times have been 'employed' so as to reduce on-costs, such as National Insurance payments, or to remove themselves from other legal obligations (see also Behling & Harvey, 2015)<sup>5</sup>. According to a UCATT report (Harvey & Behling, 2008), the shift from direct to mass false self-employment has been a main contributor to the decline in training. In

---

<sup>5</sup> The US equivalent of false self-employment is known as 'misclassification'.

the pre-1979 period, local authority 'Direct Labour Organisations' had been a major source of provision of skilled craftspeople to the construction industry. With the Direct Labour Organisations long since disbanded as a result of the privatisation of the 1980s, UCATT has argued that there has been a:

[f]ailure to build the necessary skills from within the UK, to support and maintain a technologically innovative and modernising industry. The skills gap has been widely evident ever since the decline in employment-based apprenticeships (2008, p. v) ... The employment relation is stripped of everything except the exchange of a wage for immediate labour performance. Everything above and beyond that minimalist relationship disappears. The employer commitment to develop skills over a period of time disappears along with the employer commitment to employ over a period of time... As a consequence, the industry as a whole is the loser, having abandoned any collective stakeholding in the interests of the industry to maintain levels of skill. (2008, p. 74)

In addition to the observation that employers who recruit self-employed workers largely avoid a commitment to long-term training, the DBIS (2013b, endnote 16) has recognised that self-employed workers are only half as likely to participate in training.

On the second issue of migrant workers, the sector now relies on a large supply of labour which have trained or learned trades outside of the UK, particularly with the recently increased mobility of workers from Central and Eastern Europe (European Commission, 2014). According to the Oxford University Migration Observatory, migrant labour comprised 23.3 per cent of the 'Services to buildings and landscape' workforce in 2013 (Rienzo, 2015). In the opinion of the main industry body, the Chartered Institute of Building (CIOB):

Migration is necessary to construction. It dampens the harmful effects of having a volatile labour... The greatest opportunity to expand the UK base of expertise in construction lies in boosting overseas [activity]... Construction firms will be attracted to draw more heavily on migrant workers as the industry emerges from recession. (CIOB, 2015, p. 4)

At the same time, however, the CIOB recognised that:

a ready source of high-quality migrant labour can reduce the incentive to invest in training UK citizens, especially when demand for labour rises sharply. A supply of ready-trained migrants becomes very attractive with construction training expensive, lengthy and time consuming. (2015, p. 14)

It therefore appears that the internationalisation of activity in the sector, both in terms of contracted work and the supply of labour, represents a potential brake on apprenticeship training. Nonetheless, and despite the recent upturn in the industry and the subsequent possible labour-recruitment drives by employers, it remains that the case that more than 3 out of 4 building and construction workers are UK citizens, who continue to be a potentially strong source of apprentice recruits.

On the third issue about subcontracting, it is important to note that this practice has continued to increase in the UK building and construction sector to a greater extent than in other European countries (DBIS, 2013b). Although there are clear commercial benefits to be achieved through

greater operational flexibility, it is well documented that subcontracting tends to have negative consequences for the development of human resources. As construction researchers from London's City University have put it:

Subcontracting is a payment-by-results system where payment is based on the amount of work done rather than the period of time spent on the worksite. Returns are therefore enhanced by the quick completion of task, resulting in subcontractors pushing themselves hard, working excessive hours, or side-stepping safety where it impedes production. (Manu, Ankrah, Proverbs, & Suresh, 2013, p. 1018)

In addition, it is significant that the great majority of construction companies in the UK are micro to small organisations with fewer than 10 employees, and such businesses are likely to be the main recipients of subcontracts (DBIS, 2013b; FSB, 2014). Because small businesses are in any case much less likely to invest in training than the larger firms (Grugulis, 2007), this further reduces the likelihood that construction will invest in apprenticeships.

The three factors outlined above – (false) self-employment, migration and subcontracting – are indicative of quite radical new developments in the flexibilisation of the UK labour supply. They illustrate some of the deeper forces that militate against the long-term development and stability of an already impoverished apprenticeship system in England. Section 4 takes such forces into account as it evaluates the latest developments in apprenticeship policy, and assesses the prospects for the future of the apprenticeship system in England in comparison to those of its European counterparts.

#### **4. Future prospects for apprenticeships in England**

This penultimate section examines the future prospects for apprenticeships in England. First we assess the potential of the new Trailblazer model to increase the quality and quantity of apprenticeships. Integral to this assessment is a consideration of the new employer levy as a funding mechanism. Second, we broaden the discussion to include the wider factors constraining employer engagement and the sustainability of apprenticeship training within the liberal market political-economic environment of the UK. We conclude that while there is cause for some cautious optimism that the current reforms will raise apprenticeship training quality and opportunities for further high-skills development, there are likely to be significant continuing problems with inconsistencies in standards and serious structural constraints that will affect take-up by employers.

The Richard Review (2012, p. 13) argued that employers, as the “real consumers” of apprenticeships, should be directly involved in the design of new ones. The Coalition government enthusiastically agreed that “The government cannot determine the skills needed for all occupations, and will not try to do so” (DBIS, 2013a, p. 12) and announced that employers, working with professional bodies and others, would develop new Trailblazer apprenticeships to “[p]rovide clear examples of effective practice and approaches” (DBIS, 2013a, p. 23). The timetable for implementation was ambitious; Trailblazer standards were to be adopted across all apprenticeships in the country by 2017-18. The government also accepted Richard's other recommendations that sought to repair the damage inflicted on the credibility of many apprenticeships in previous years. Richard recommended that the definition of an apprenticeship should be restricted to a ‘new job or role’ requiring substantive

training, that the training of existing workers should be delivered separately. In addition he called for a general upgrading of apprenticeships, whereby Level 2 (Intermediate) schemes would be replaced by 'entry to employment' programmes and all apprentices would be required to reach Level 2 (GCSE equivalent) in English and Maths, in contrast to Intermediate level apprenticeships, which rarely provided qualification beyond Level 1 in these two key subjects.

The single available authoritative evaluation of the Trailblazer pilot is a government-commissioned 2015 report by the Institute of Employment Studies (IES) (see Newton, Miller, Williams, Buzzeo, & Hinks, 2015). In the report the IES argues that, although medium to large employers had tended to dominate the design of new standards without fully considering the needs of small- and medium-sized enterprises (SMEs), employer networks had generally succeeded in developing an early range of new apprenticeships that were challenging and relevant for the contemporary labour market (see selected examples of the standards in Appendix II)(Newton et al., 2015; see also examples of new standards in Appendix II)(Newton et al. 2015; see also examples of new standards in Appendix II)(Newton et al. 2015; see also examples of new standards in Appendix II). The government's education inspectorate was similarly impressed, reporting some "high quality" and "substantial off the job training" in its observations (Ofsted, 2015, p. 29). Also in line with Richard's recommendations, but not fully compliant with the idea of the split between 'real apprenticeship' and 'entry to employment programmes', the IES found that the new standards were largely at Level 3 and "often" included the achievement of Level 2 English and Maths as standard entry criteria (Newton et al., 2015, p. 13).

Yet the IES found that not all Trailblazer standards were particularly new or innovative, and noted a continuing appetite among many employers for the integration of existing industry qualifications and licenses into the new specifications. Also, in its enthusiasm to "let a thousand flowers grow" (Newton et al., 2015, p. 67), the government's approach to Trailblazer development had led to considerable confusion:

[D]ifferent networks had been approved to develop the Standard for seemingly similar occupations. A proliferation of overlapping Apprenticeships poses a risk to rigour and quality, meaning that Apprenticeships become narrow and do not support transfer between jobs and sectors. (Newton et al., 2015, p. 8)

The report estimates that, despite complaints from employer networks about the absence of funding and lack of appropriate support from government, as many as 1,700 new apprenticeship standards may be expected to be generated within the pilot period (Newton et al., 2015, p. 8). The authors therefore raise concerns about maintaining consistency in quality across such a broad provision, and their report indirectly shows how the government was forced on several occasions to issue additional guidance in order to provide greater clarity to networks, including a belated 'Quality Statement' in March 2015 (see SFA, 2015a) and an announcement to set up a new Institute for Apprenticeships by April 2017 (DBIS, 2015b).

The main identified weaknesses in the quality of the Trailblazer standards derive principally from the government's rapid, employer-driven and generally unregulated approach to the pilot. Nowhere is this more apparent than in issues with assessment. The IES report notes difficulties experienced by the employer networks in developing assessments, especially to meet the needs of smaller employers, and how this sometimes led to a reworking of the new standards. Part of the difficulty,

the report points out, was that government guidance on the weighting of the final 'end-point' assessment changed mid-way through the pilot from two thirds of the total assessment of the apprenticeship to 100 per cent. To load the final assessment so heavily was considered a high-risk strategy by some employers. The IES also notes inconsistency in approaches to grading. While a pass/fail approach was originally intended, as common to the competence-based assessment of NVQs and many other work-related qualifications, some limited variable grading has since been permitted, particularly for the knowledge-based and behavioural parts of some apprenticeship standards. The IES goes on to note a lack of clarity on the issue of "independence in assessment", leading to concern in some employer networks about the availability of 'their' assessments on the "open assessment market", whereby other training organisations would be permitted to administer and charge for the assessment of apprenticeship candidates (Newton et al., 2015, p. 68). Finally, the IES reports anxieties about the capacity to recruit, train and quality-assure the large number of assessors that will be needed to validate apprentices' learning under the new standards. Such concerns are very reminiscent of older debates around the assessment of NVQs (see e.g. Grugulis, 2007).

But on balance, the IES professes optimism about the likely take-up of the new apprenticeship model by employers. The actual delivery of Trailblazer pilot apprenticeships to date has been lower than anticipated, with only 200-300 starts by the end of 2015, although this is largely put down to the longer than expected approval processes (Newton et al., 2015). The argument seems to be that the enthusiasm generated by the employer-driven nature of the Trailblazer pilot, combined with new financial incentives for employers to take on apprentices, will promote the desired take-up. Indeed, public funding for Trailblazers was designed to be more generous than for mainstream apprenticeships as described in Section 1. Funding for Trailblazers, as recommended by Richard, also gave more direct control to employers over their investment in apprenticeship training. Since September 2014, the government has subsidised Trailblazer employers directly by contributing £2 for every £1 they spend on apprenticeship training (although there is a series of caps, reflecting the type and level of apprenticeship) (2015e). Direct funding of employers may also serve the unacknowledged purpose of reducing the influence of intermediary training companies in the generation and allocation of apprenticeship places.

It has since been recognised, however, that it will require more than employer enthusiasm for the new standards and a direct subsidy mechanism to meet the government's apprenticeship recruitment targets. The target of 3 million new apprenticeships by 2020, set by the government on its re-election as a majority Conservative administration in May 2015, was hugely unrealistic at the time of announcement. Notably Wolf (2015, p. 15) expressed that to "talk of improving apprenticeship quality and also having 3 million new apprenticeships by 2020 is self-deception at best". Ofsted (2015, p. 29) also commented that many SMEs "[do] not want additional responsibilities for the organisation and bureaucracy of an apprenticeship". Other evidence indicated that, in themselves, the Trailblazer reforms would not necessarily alter employers' behaviour. A government-commissioned survey of over 4,000 employers (Colahan & Johnson, 2014, see especially Chapter 4) reported that 26 per cent did not want any more influence over apprenticeship training, and that only 56 per cent felt empowered to change their training provider or the type of apprenticeship training provided. As Richard's evidence (2012) had shown, one of the most common reasons for employers taking on an apprentice was as a result of being directly approached by a training company, thus emphasising a passive rather than active role of employers.

In other words, the extent to which all employers are willing and able to exercise more choice and control may have been overestimated in the Trailblazer reforms.

The government's response to concerns about the employer take-up of the new apprenticeships has been twofold. Firstly, a 'digital voucher' has been introduced in response to fears, particularly among smaller employers, about increased paperwork caused by having to choose their providers and initiate their own training programmes. These vouchers will be exchangeable for government funding which can then be passed on to a chosen provider. Secondly, in response to concerns about inadequate levels of the total funding for apprenticeships, the government made the surprise announcement of a compulsory levy on larger employers (DBIS, 2015a).

The national employer levy, the likes of which have not been seen since the phasing out of the Industrial Training Boards the 1970s and early-1980s, is a radical step, especially for a neo-liberal Conservative government<sup>6</sup>. Following Wolf's (2015) advice, the levy has been set at 0.5 per cent of the employer's paybill in businesses where it is over £3 million. It is to be collected at source from the payroll, offset against a £15,000 allowance and administered by a Digital Apprenticeship Service (HM Revenue and Customs, 2016). The government estimates that the levy will raise nearly £3 billion, potentially doubling apprenticeship funding by 2019-20. It will only be paid by approximately 2 per cent employers, and there is a commitment that contributors will be able to receive more back than they have paid in, although this entitlement is proposed to expire if not used within two years (Delebarre, 2015; HM Revenue and Customs, 2016; HM Treasury & The Rt Hon George Osborne MP, 2015). The details of the basis on which the levy proceeds will be distributed, as well as the future of the £2-for-£1 formula outlined above, are still to be clarified. The levy is an especially controversial issue for the building and construction industry, as the Construction Industry Training Board estimates that only 700 building and construction firms will be required to pay the new levy, although these firms would be prepared to continue to pay the industry levy as well (Radley, 2015).

The levy, when originally proposed, received mixed support from employer groups. The UK body for large employers, the Confederation of British Industry, predictably called for the levy to be voluntary rather than prescriptive (The Financial Times, 2015). The human resource managers body, the Chartered Institute of Personnel and Development, surveyed businesses to find that only 39 per cent of large employers were committed in principle, with 31 per cent replying that a levy would mean reducing investment in other areas of training (Kirton, 2015). However, in the government's own consultation, the levy received a generally positive response, with half of respondents agreeing that a proportion of the apprenticeship funding raised from larger companies should be used to support apprenticeship (DBIS, 2015a). After the consultation period, the government pressed confirmed in November 2015 that the levy would be introduced in April 2017 (Delebarre, 2015).

Time will tell how successful the Trailblazer reforms and the levy will be in helping to deliver the intended employer take-up of apprenticeships. Although the levy is very promising on the surface, there is very little robust evaluation evidence available on the effectiveness of statutory training levies in general (Gospel, 2012; Steedman, 2015). There are also good reasons to suspect that

---

<sup>6</sup> Three industrial training boards have nonetheless been in operation for many years: the Construction Industry Training Board (CITB), the Engineering Construction Industry Training Board (ECITB) and the Film Industry Training Board for England and Wales (FITB). The former two operate statutory training levies (DBIS, 2015c).

deeper, underlying constraints on employer engagement in the UK will act as a strong brake on take-up. On this latter point, in a collection for the centre-left think-tank, the Institute of Public Policy Research, Keep and James (2011) provide a useful overview of seven main issues that underlie the lack of employer demand for apprenticeship in the UK. The seven issues may be summarised as:

- i) lack of demand for intermediate skills;
- ii) lack of industrial policy orientated towards reviving manufacturing;
- iii) preference for general and academic educational routes over apprenticeship;
- iv) the single European Union labour market and migrant labour;
- v) lack of occupational licenses to practice;
- vi) lack of collective employer organisation; and
- vii) a narrow conception of intermediate skills.

These points widen the apprenticeship debate to include important, whole-UK political-economic factors, and are worth exploring in some detail.

On the first point about lack of demand for intermediate skills, Keep and James argue that UK employers simply do not demand as many apprentices as the government wishes to create, because their business models are orientated towards competing in ways other than through technical quality, which relies on the intermediate skills of the workforce. Rather, they argue, UK businesses tend to compete either through high-value expert knowledge, requiring university graduates, or through the consistent provision of low-cost goods and services, including heavy use of outsourcing and offshoring. This line of argument follows the 'low skills equilibrium' thesis (Finegold & Soskice, 1988) and that of the 'hourglass economy' (Nolan, 2001), in which it is argued that middle-level work has been hollowed out in modern, liberal market economies such as in the UK and US, resulting in disproportionately large groups at the top and bottom ends of the workforce. However, Osterman (2008) counsels against exaggerated claims of the death of the intermediate workforce, making the point that at least a quarter, if not a full third of jobs can still be expected to be found in at skilled, intermediate level for the foreseeable future. Keep and James (2011) also acknowledge that, within the ageing workforce, there is currently a stock of traditionally-trained skilled workers soon due for retirement, thus perhaps creating demand for their replacement through apprentices.

The second problem of a lack of industrial policy that is orientated towards reviving manufacturing is rooted in the liberal market political-economic tradition in the UK. This tradition is generally averse to active government intervention and support for strategically important businesses and industries. The connection with apprenticeship training is best illustrated by comparison with Germany, which has a much larger apprenticeship provision. Despite international trends towards 'deindustrialisation', government policy on the development of manufacturing in Germany has helped to ensure that the sector accounts for 22 per cent of Gross National Product, as compared with 10 per cent in the UK (ONS, 2015a). Even if the majority of German apprentices are now to be found in services, manufacturing provides the anchor of its apprenticeship system and is the site of the highest-quality training schemes, which serve to drive up the benchmark-standards elsewhere in the economy (Ofsted, 2015). It is hard to escape the conclusion that coordinated long-term investment in manufacturing and its associated supply chains is causally linked with long-term, large-scale investment in apprenticeships by German employers (c.f. Marsden, 2015).

The third point about the preference for general and academic educational routes over apprenticeships belongs to a longstanding debate in the UK. Indeed, the most recent education reforms have reasserted the predominance of traditional academic over vocational learning (Ainley & Allen, 2013). As observed in Section 1, approximately 40 per cent of 16-year olds in England take A-levels in in school sixth forms or in sixth-form colleges; in contrast, only 6.2 per cent of 17-year olds and 8.4 per cent of 18-year olds were in workplace learning in 2013 (SFA, 2015d). (The remainder include about another 40 per cent who take full-time school- and college-based ‘vocational’ qualifications, which are however often used by students as an alternative route to academic studies at university). There are multiple historical reasons for this trend. Important ones are the deep-rooted British cultural “snobbery” against “dirty jobs” (Baker, 2013, p. 5), and more contemporary concerns about the intellectual rigour of the ubiquitous competence-based approach to NVQs and workplace learning. According to its critics, such qualifications involve merely recording ‘outcomes’ rather than developing an technical understanding (see especially Smithers, 1997).

In response to the imbalances described above, there have been many government initiatives in recent years to promote more and better quality vocational education. However, as Keep and James (2011, p. 60) point out, such initiatives have also served to undermine workplace learning and apprenticeships. For example, Foundation Degrees introduced in 2000, University Technology Colleges in 2010 and the Technical Baccalaureate in 2014 may all provide excellent learning opportunities for technical learning, but at the same time they offer publicly-funded, alternative routes into university. Not only can this exacerbate the problem of over-supply and under-employment of university graduates in the labour market, who then tend to occupy the Level 3 jobs in favour of apparently less qualified technician-level workers<sup>7</sup>, it also encourages employers not to invest directly in their own intermediate-level training. Ironically, as will be argued in the conclusion, it is the laddered qualifications framework that exists in England that may be the greatest source of potential for the future development of apprenticeships. But across the present provision, damaging competition between vocational qualifications persists.

The fourth point about the influence of single European Union labour market and migrant labour was also discussed in the case study on building and construction apprenticeships in Section 3. Keep and James (2011, p. 60) observe that “in some occupations and sectors, well-trained, well-educated workers from the [Central and Eastern European] accession states are readily available and keen to work in the UK. Their training comes free of cost to UK employers.” However, as our case study illustrated, even in the mainly manual and relatively low-wage building and construction sector workforce, which is highly accessible to migrant workers, approximately three in four workers were UK citizens. The magnitude of the disincentive to train caused by the availability of qualified migrant labour should therefore not be over-estimated.

The fifth issue about the lack of occupational licences, like the second point on industrial policy, is related to the UK’s liberal market tradition. In contrast to most northern European countries, the UK has few occupations for which an apprenticeship easily provides the opportunity to acquire a legal

---

<sup>7</sup> Despite the problems of graduate under-employment, and the introduction of a near-threefold increase in university tuition fees in 2012, the evidence suggests that young people are still choosing rationally by preferring university over work-based qualifications. A government-commissioned study in 2013 showed that men with university degrees may be expected to have earned 28 per cent more during their working life than those without; for women, the premium equated to 52 per cent (Walker & Zhu, 2013).

license to practice. Beyond the graduate and postgraduate professions such as medicine and law, there are some Level 2-type occupations that require a license to practice, such as security guards and social care workers. However, at the level of intermediate, Level 3-type occupations, the range of licences is limited. Keep and James (2011, p. 60) give the few examples of heavy goods vehicle drivers, 'door wardens', bus and coach drivers, gas fitters and airline pilots. Nonetheless, they also mention other similar 'Anglo-Saxon' liberal economies, namely Australia, New Zealand and Canada, which have more extensive occupational licensing rules, and the authors observe that the UK government is increasing its interest in voluntary rather than mandatory licensing in some industries.

The sixth point about the lack of collective employer organisation is related to the UK's 'voluntarist' employment relations system (Ashton, 2004). Employer organisations in the UK have reduced in number, size and influence relative to the decline of collective bargaining (Barry & Wilkinson, 2011) and with the increasing individualisation of the employment relationship (Brown & Marsden, 2011). In the absence of tripartite social partnership arrangements, involving the state, employer representatives and trades unions, UK training policy since the 1980s has been characterised by consultation with, rather than the active involvement of employers (Grugulis, 2007). Key, high-profile employers have regularly been invited by the government to take the strategic lead of the numerous and changing national, regional and local training agencies over the years; however employers have not been locked into institutional mechanisms that require their hands-on involvement in the coordination and management of apprenticeships. With the exception of some excellent individual company-based apprenticeships, therefore, real employer engagement has been minimal (McGurk, 2014).

It is as yet unclear whether the new Trailblazer employer networks are groups of genuinely involved employers that are truly representative of their sectors, or whether they conform to the more typical pattern of interested but unrepresentative individual businesses and associated individuals. Local Enterprise Partnerships (LEPs) are the latest incarnation of employer-led bodies in England and Wales, created in 2012 with brief to promote regional economic development and coordinate local employment and skills. LEPs could prove to be effective vehicles for the devolved coordination of apprenticeships (D. J. Finn, 2015). But the plans for such devolution are still hazy (HM Treasury & The Rt Hon George Osborne MP, 2015). Moreover, an early analysis of LEP board membership has shown that LEPs are dominated by private businesses that are likely to be more interested in local infrastructure and property projects rather than in employment and skills programmes (McGurk & Meredith, 2015). Arguably, the most powerful future influence on the engagement of employers will be the employer levy, which should at least force the largest employers to consider the value of the returns on their contribution to the collective apprenticeship fund in the form of actual investment in apprenticeship training. The other 98 per cent of employers may also be effectively incentivised to take advantage of the newly-available public funding.

Keep and James's seventh and final issue, relating to the narrow conception of intermediate skills, prefigures the Trailblazer pilot and so does not take into account the latest policy switch towards 'employer-led' apprenticeships in England. The point that they make, however, is that employers in the UK have tended to provide their own short-term, workplace-specific upgrade training, rather than collaborate at sectoral or local level to invest in a stock of generally and technically qualified workers. They argue that the understanding of intermediate skills among British employers has

therefore become very narrow, and that this has become reflected in a fragmented apprenticeship system (or, to use the earlier phrase, an impoverished system). Employers have therefore increasingly complained over the years that the Level 2 and 3 qualifications not sufficiently broad or demanding to meet their needs, and are now “finding that they are paying the price for failure to take ownership of apprenticeship” (Steedman, 2011, p. 4).

In summary, it is too early to say whether the Trailblazer reforms will be able to overcome the longstanding narrowness and insularity of British employer behaviour. German apprenticeships, for example, do not concentrate on a range of narrow skills directly relevant to a particular ‘job’. Instead, apprentices in Germany participate in a ‘dual system’, spending part of the week in work-based training and typically up to two days per week on classroom-based study of the more theoretical aspects of their vocation and on general education; this arrangement is supported by an institutionalised and coordinated social partnership (Steedman, 2010). In contrast, there is a real risk that the English Trailblazer standards will end up focussing on the specific requirements of particular employers in particular sectors, rather than the longer-term educational and career development needs of young people. There is also a strong likelihood that an integrated and coordinated approach to apprenticeship provision, most likely attempted through the LEPs, which are far from becoming fit for this purpose, will fail to materialise. The role of public Further Education colleges, traditionally the key providers of vocational and technical education, vis-à-vis the more opportunistic private training organisations, is also far from assured. The future of the English apprenticeship system is very uncertain.

## 5. Conclusion

This paper has demonstrated that apprenticeship training in England has been resurrected from near-extinction in the 1980s, but continual reforms since then have resulted in a fragmented, mismanaged, poorly coordinated and under-resourced system. Flexible, individualistic and open labour markets, that are characteristic of the UK’s liberal market economy, have militated against occupational regulation and long-term employer investment and involvement in intermediate skills development. The social partnership and collaborative arrangements between employers, the state and unions, on which effective apprenticeship systems in other countries tend to rely, are now more or less alien to the English system.

Yet, as Richard (2012, p. 15) concluded in his review:

[M]any experts have told me that what we need is for our apprenticeships to look more like some of our European neighbours’; that my task was to prescribe a solution which involved us trying to become Germany or Switzerland. Where they were right is that we have much to learn from these excellent systems... But I have not set out to turn English apprenticeships into German ones; while it may have been simpler, I cannot recommend we adopt a system built, over generations, upon a very different economy, labour market and social partnership.

This was a wise view to take with regard to the future of apprenticeships in England. Although there are significant political-economic constraints, there are also some opportunities for a

strong and uniquely English apprenticeship system to flourish. The combination of new and credible apprenticeship qualifications, an adequate and effectively managed employer levy, and a unified qualifications framework would be the bedrock of such a future system. However, there is a significant danger that the uncoordinated and chaotic nature of the current reforms will turn out to be highly wasteful and damaging. Should the Trailblazer pilot stall, the levy prove to be ineffective in incentivising employers, or the new standards fail to connect with the public, then there is only a weak, discredited and fragmented system to fall back upon.

The irony is that, assuming the post-Trailblazer apprenticeships and the levy are successful, the key to sustaining the new, employer-driven apprenticeships will be strong coordination by the state. In the absence of a north European-style social partnership model, the English system will have to rely on its existing unified qualifications framework to consolidate provision (see Appendix I). So long as the new apprenticeships are recognised as high quality and prove popular as a genuine alternative to traditional education qualifications, then the unified qualifications framework has the potential to recognise and promote genuinely high-skill development routes, particularly at Level 3 and 4. This would provide especially young people with the opportunity for bridging the academic-vocational divide and achieving greater career mobility than is usual in other counterpart countries (c.f. Fuller & Unwin, 2008b).

But it must be reiterated that the future prospects of the English apprenticeship system are still fragile. When evaluating the prospects of the new Modern Apprenticeships of the mid-1990s, UK professor Howard Gospel (1998, p. 453) commented that this was “probably the last opportunity in Britain to revive the employer-based route to training” and that “[i]t would be a great shame if this were to be a missed opportunity.” This time, it really does seem to be the last chance.

## Appendix I: Overview of English qualifications system

Apprenticeship type	National Qualifications Framework level	National Qualifications Framework examples	Framework for Higher Ed. Qualifications examples
	Entry	Entry level certificate Entry level Skills for Life	n/a
	1	GCSE (grades D-G) NVQ level 1	
<i>Intermediate</i>	2	GCSE (grades A*-C) NVQ level 2	n/a
<i>Advanced</i>	3	AS and A level NVQ level 3	
<i>Higher</i>	4	Certificate of higher ed. NVQ level 4	Certificate of higher ed. Higher National Certificate
	5	Higher National Diploma NVQ level 4	Higher National Diploma Foundation degree
	6	NVQ level 4	Bachelor's degree
	7	Postgraduate diploma NVQ level 5	Master's degree
	8	NVQs level 5	PhD

Source: Kirby (2015, p. 6)

### Glossary of qualifications

GCSE	General Certificate of Secondary Education	compulsory school-leaving certificates typically taken at 15-16 years normally 4-10 certificates taken across English, Mathematics, Humanities and Science/Technology subjects
NVQ	National Vocational Qualifications	competence- and workplace-based qualifications, subdivided into 'units'
AS and A level	Advanced Supplementary and Advanced Levels	post-compulsory school certificates typically taken at 17-18 years AS levels equal half of one A level normally 2-4 AS/A levels taken across a range of academic subjects most popular main admission route into university
BTEC	Business and Technology Education Council	awarding body responsible for the country's largest range of work-related qualifications, including the BTEC National Certificates and Diplomas BTEC National Certificate NVQ level 2 BTEC National Diploma NVQ level 3 BTEC Higher National Certificate NVQ level 4



## Appendix II: Content of selected Trailblazer apprenticeships

Following the Richard Review (2012), new 'Trailblazer' Apprenticeship Standards are being developed by 'employer networks'. These are replacing the previous state- driven apprenticeships based on National Vocational Qualifications and Functional Skills. Although still based on notions of 'occupational competence' the new standards allow far greater degrees of employer ownership. They are not tied to particular qualifications and allow for different types of delivery.

Reflecting concern about existing apprenticeships being low-skilled insufficiently rigorous, Trailblazers are designed for Level 3 and above and it is intended that there will also be standards available for professional occupations at Level 4, 5 and 6.

Examples of published Level 3 Trailblazer Standards and Training Plans (including two associated with building and construction) can be found through the following links:

- Occupation: Land-based Service Engineering Technician

<https://www.gov.uk/government/publications/apprenticeship-standard-land-based-service-engineering-technician>

- Occupation: Surveying Technician

<https://www.gov.uk/government/publications/apprenticeship-standard-surveying-technician>

- Occupation: Motor Vehicle Service and Maintenance technician

<https://www.gov.uk/government/publications/apprenticeship-standard-motor-vehicle-service-and-maintenance-technician-light-vehicle>

- Occupational: Dental Nurse

<https://www.gov.uk/government/publications/apprenticeship-standard-dental-nurse>

## References

- Abdel-Wahab, M. (2012). Rethinking apprenticeship training in the British construction industry. *Journal of Vocational Education & Training*, 64(2), 145–154. <http://doi.org/10.1080/13636820.2011.622450>
- Ainley, P., & Allen, M. (2013). *The Great Reversal .Young People, Education and Employment in a Declining Economy*. London: Radicaled. Retrieved from <http://radicaledbks.com/downloads-of-academic-papers-and-magazine-articles/>
- Ainley, P., & Allen, M. (2014). *Another Great Training Robbery or a Real Alternative for Young People? Apprenticeships at the start of the 21st Century*. London: Radicaled. Retrieved from <https://radicaledbks.files.wordpress.com/2013/09/apprentices-second-edit3.pdf>
- Ashton, D. (2004). The political economy of workplace learning. In H. Rainbird, A. Fuller, & A. Munro (Eds.), *Workplace Learning in Context*. London ; New York: Routledge.
- Baker, K. (2013). Transforming 14-18 Education. In K. Baker (Ed.), *14-18 : A New Vision for Secondary Education* (Chapter 1). London: Bloomsbury Publishing.
- Barry, M., & Wilkinson, A. (2011). Reconceptualising employer associations under evolving employment relations: countervailing power revisited. *Work, Employment & Society*, 25(1), 149–162. <http://doi.org/10.1177/0950017010389229>
- BBC News. (2015, September 4). Election 2015: Cameron welcomes new apprenticeships. Retrieved from <http://www.bbc.co.uk/news/election-2015-32238879>
- Behling, F., & Harvey, M. (2015). The evolution of false self-employment in the British construction industry: a neo-Polanyian account of labour market formation. *Work, Employment & Society*, 29(6), 969–988. <http://doi.org/10.1177/0950017014559960>
- Brockmann, M., Clarke, L., & Winch, C. (2010). The Apprenticeship Framework in England: a new beginning or a continuing sham? *Journal of Education and Work*, 23(2), 111–127. <http://doi.org/10.1080/13639081003627439>
- Brown, W., & Marsden, D. (2011). Individualization and Growing Diversity of Employment Relationships. In D. Marsden (Ed.), *Employment in the lean years: policy and prospects for the next decade* (pp. 73–86).
- Campbell, J., Thomson, E., & Pautz, H. (2011). Apprenticeship Training in England: Closing the Gap? *Journal of Contemporary European Studies*, 19(3), 365–378. <http://doi.org/10.1080/14782804.2011.610606>
- CIOB. (2015). *CIOB Perspectives: An Analysis of Migration in the Construction Sector*. London: Chartered Institute of Building. Retrieved from [https://www.ciob.org/sites/default/files/CIOB%20research%20-%20Analysis%20on%20Migration%20in%20the%20Construction%20Sector\\_0.pdf](https://www.ciob.org/sites/default/files/CIOB%20research%20-%20Analysis%20on%20Migration%20in%20the%20Construction%20Sector_0.pdf)
- CITB. (2015, August 19). FMB issue warning over skills shortages. *CITB News*. Norfolk. Retrieved from <http://www.citb.co.uk/news-events/uk/fmb-issue-warning-over-skills-shortages/>
- Colahan, M., & Johnson, C. (2014). *Apprenticeships Evaluation 2014: Employer Report* (Research Paper No. 204). London: Department for Business, Innovation and Skills/Ipsos Mori. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/387595/bis-14-1207-Apprenticeships-Evaluation-Employers-December-2014.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387595/bis-14-1207-Apprenticeships-Evaluation-Employers-December-2014.pdf)
- Construction Manager Magazine. (2015, January 27). Skills Shortage: Apprenticeship completion stats show decline. Retrieved from <http://www.construction-manager.co.uk/news/skills-shortage-special-apprenticeship-completion-/>
- DBIS. (2013a). *Future of apprenticeships in England: implementation plan* (No. BIS/13/1175). London: Department for Business, Innovation and Skills. Retrieved from <https://www.gov.uk/government/consultations/future-of-apprenticeships-in-england-richard-review-next-steps>
- DBIS. (2013b). *UK Construction: An economic analysis of the sector* (No. BIS/13/958). London: Department for Business, Innovation and Skills. Retrieved from

- [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/210060/bis-13-958-uk-construction-an-economic-analysis-of-sector.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/210060/bis-13-958-uk-construction-an-economic-analysis-of-sector.pdf)
- DBIS. (2014). *The Future of Apprenticeships in England Guidance for Trailblazers – from standards to starts*. London: Department for Business, Innovation and Skills. Retrieved from <https://www.gov.uk/government/publications/future-of-apprenticeships-in-england-guidance-for-trailblazers>
- DBIS. (2015a). *Apprenticeships levy: employer owned apprenticeships training* (Consultation Outcome). London: Department for Business, Innovation and Skills. Retrieved from <https://www.gov.uk/government/consultations/apprenticeships-levy-employer-owned-apprenticeships-training>
- DBIS. (2015b). *English apprenticeships: our 2020 vision* (Corporate Report No. BIS/15/604). London: Department for Business, Innovation and Skills. Retrieved from <https://www.gov.uk/government/publications/apprenticeships-in-england-vision-for-2020>
- DBIS. (2015c). *Industry Training Boards: combined triennial review* (Corporate Report No. BIS/15/686). London: Department for Business, Innovation and Skills.
- DBIS. (2015d). *Statement of Apprenticeship Quality in England*. London: Department for Business, Innovation and Skills. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/465572/bis-15-572-specification-of-apprenticeship-standards-for-england-SASE.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/465572/bis-15-572-specification-of-apprenticeship-standards-for-england-SASE.pdf)
- Delebarre, J. (2015). *Apprenticeships Policy, England 2015* (Briefing Paper No. 03052). London: House of Commons Library.
- European Commission. (2014). *Recent trends in the geographical mobility of workers in the EU* (Quarterly Review Supplement). Brussels: European Commission.
- FE Week. (2011, January 12). Cable announces 19,000 new higher apprenticeships. Retrieved from <http://feweek.co.uk/2011/12/01/cable-announces-19000-new-higher-apprenticeships/>
- Finigold, D., & Soskice, D. (1988). The failure of training in Britain: analysis and prescription. *Oxford Review of Economic Policy*, 4(3), 21–43.
- Finn, D. (1987). *Training without jobs: new deals and broken promises*. Basingstoke: Macmillan Education.
- Finn, D. (2015). *Welfare to work devolution in England*. York: Joseph Rowntree Foundation. Retrieved from <http://eprints.port.ac.uk/18914/>
- Forde, C., & MacKenzie, R. (2004). Cementing skills: training and labour use in UK construction. *Human Resource Management Journal*, 14(3), 74–88. <http://doi.org/10.1111/j.1748-8583.2004.tb00127.x>
- FSB. (2014). *The FSB “Voice of Small Business” Member Survey*. Blackpool: Federation of Small Business. Retrieved from <http://www.fsb.org.uk/docs/default-source/Publications/reports/fsb-member-survey-2013-uk.pdf?sfvrsn=0>
- Fuller, A., & Unwin, L. (2003). Creating a “Modern Apprenticeship”: A critique of the UK’s multi-sector, social inclusion approach. *Journal of Education and Work*, 16(1), 5–25. <http://doi.org/10.1080/1363908022000032867>
- Fuller, A., & Unwin, L. (2008a). *Towards Expansive Apprenticeships* (A Commentary for the ESRC’s Teaching and Learning Programme). London: ESRC/Institute of Education. Retrieved from <http://www.adapttech.it/old/files/document/11507APPRENTICESHIPUK.pdf>
- Fuller, A., & Unwin, L. (2008b). *Towards expansive apprenticeships*. London: Institute of Education. Retrieved from <http://www.adapttech.it/old/files/document/11507APPRENTICESHIPUK.pdf>
- Fuller, A., & Unwin, L. (2011a). The content of apprenticeships. In T. Dolphin & T. Lanning (Eds.), *Rethinking Apprenticeships* (pp. 29–39). London: IPPR. Retrieved from <http://www.ippr.org/publications/rethinking-apprenticeships>
- Fuller, A., & Unwin, L. (2011b). Vocational education and training in the spotlight: back to the future for the UK’s Coalition Government? *London Review of Education*, 9(2), 191–204. <http://doi.org/10.1080/14748460.2011.585879>

- Gospel, H. (1995). The decline of apprenticeship training in Britain. *Industrial Relations Journal*, 26(1), 32–44. <http://doi.org/10.1111/j.1468-2338.1995.tb00721.x>
- Gospel, H. (1998). The revival of apprenticeship training in Britain? *British Journal of Industrial Relations*, 36(3), 435–457.
- Gospel, H. (2012). *Understanding training levies* (Evidence Report 47). London: UK Commission for Employment and Skills. Retrieved from <http://webarchive.nationalarchives.gov.uk/20140108090250/http://www.ukces.org.uk/publications/er47-understanding-training-levies>
- Grugulis, I. (2007). *Skills, training and human resource development: a critical text*. Basingstoke, Hampshire: Palgrave Macmillan.
- Harvey, M., & Behling, F. (2008). *The Evasion Economy: False Self-Employment in the UK Construction Industry*. London: UCATT. Retrieved from <http://ucatt.info.co.uk/sites/default/files/uploaded/publications/Evasion-Economy-UCATT.pdf>
- Hasluck, C. (2011). *Employers and the recruitment of unemployed people: An evidence review* (Briefing Paper). London: UK Commission for Employment and Skills. Retrieved from <https://www.gov.uk/government/publications/employers-and-the-recruitment-of-young-people-an-evidence-review>
- HM Revenue and Customs. (2016). *Apprenticeship Levy Draft Legislation* (Policy Paper). London: HM Revenue and Customs. Retrieved from <https://www.gov.uk/government/publications/apprenticeship-levy>
- HM Treasury, & The Rt Hon George Osborne MP. (2015). *Spending review and autumn statement 2015* (Policy Paper). London: HM Treasury. Retrieved from <https://www.gov.uk/government/publications/spending-review-and-autumn-statement-2015-documents/spending-review-and-autumn-statement-2015>
- HoC Education Committee. (2015). *Apprenticeships and traineeships for 16 to 19 year-olds* (Sixth Report of Session 2014-15 No. HC 597). London: House of Commons/The Stationery Office Limited. Retrieved from <http://www.publications.parliament.uk/pa/cm201415/cmselect/cmeduc/597/597.pdf>
- Joslin, H., & Smith, S. (2013). *Progression of Apprentices to Higher Education* (No. BIS Research Paper No. 107). University of Greenwich/Department for Business, Innovation and Skills. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/121889/BI-S-13-664-progression-of-apprentices-to-higher-education.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/121889/BI-S-13-664-progression-of-apprentices-to-higher-education.pdf)
- Keep, E., & James, S. (2011). Employer demand for apprenticeships. In T. Dolphin & T. Lanning (Eds.), *Rethinking Apprenticeships* (pp. 55–65). London: IPPR. Retrieved from <http://www.ippr.org/publications/rethinking-apprenticeships>
- Keep, E., & James, S. (2012). Are Skills the Answer to Bad Jobs? Incentives to Learn at the Bottom End of the Labour Market. In C. Warhurst, F. Carre, P. Findlay, & C. Tilly (Eds.), *Are bad jobs inevitable?: trends, determinants and responses to job quality in the twenty-first century* (pp. 240–254). Basingstoke: Palgrave Macmillan.
- Kirby, P. (2015). *Levels of Success: the potential of UK apprenticeships*. London: Sutton Trust. Retrieved from <http://www.suttontrust.com/wp-content/uploads/2015/10/Levels-of-Success3.pdf>
- Kirton, H. (2015, February 10). Employers divided over apprenticeships levy, finds CIPD survey. *People Management*. London. Retrieved from <http://www.cipd.co.uk/pm/peoplemanagement/b/weblog/archive/2015/10/02/employers-divided-over-apprenticeships-levy-finds-cipd-survey.aspx>
- Lerman, R. (2013). Expanding apprenticeships in the United States: barriers and opportunities. In A. Fuller & L. Unwin (Eds.), *Contemporary apprenticeship: international perspectives on an evolving model of learning* (pp. 105–124). London: Routledge.

- LPC, & BIS. (2015). *National Minimum Wage: Low Pay Commission report 2015* (Research and Analysis No. Cm9017). London: Low Pay Commission/Department for Business, Innovation and Skills. Retrieved from <https://www.gov.uk/government/publications/national-minimum-wage-low-pay-commission-report-2015>
- Manu, P., Ankrah, N., Proverbs, D., & Suresh, S. (2013). Mitigating the health and safety influence of subcontracting in construction: The approach of main contractors. *International Journal of Project Management*, 31(7), 1017–1026. <http://doi.org/10.1016/j.ijproman.2012.11.011>
- Marsden, D. (2015). *The future of the German industrial relations model* (No. CEP Discussion Paper No 1344). London: Centre for Economic Performance, London School of Economics and Political Science. Retrieved from <http://eprints.lse.ac.uk/61699/>
- Marsden, D., & Ryan, P. (1990). Institutional aspects of youth employment and training policy in Britain. *British Journal of Industrial Relations*, 28(3), 351–369.
- McGurk, P. (2014). *Employer Engagement: a human resource management perspective* (Working Paper No. WERU7). London: University of Greenwich. Retrieved from [http://www2.gre.ac.uk/\\_\\_data/assets/pdf\\_file/0004/1060933/McGurk-WERU-working-paper-May-2014.pdf](http://www2.gre.ac.uk/__data/assets/pdf_file/0004/1060933/McGurk-WERU-working-paper-May-2014.pdf)
- McGurk, P., & Meredith, R. (2015). Local Enterprise Partnerships: putting employers in the driving seat – to nowhere. Presented at the Society for the Advancement of Socio-Economics (SASE) Annual Conference, London School of Economics.
- Mirza-Davies, J. (2015a). *Apprenticeship policy, England* (Briefing Paper No. 03052). London: House of Commons Library. Retrieved from [www.parliament.uk/briefing-papers/Sn03052.pdf](http://www.parliament.uk/briefing-papers/Sn03052.pdf)
- Mirza-Davies, J. (2015b). *Apprenticeship statistics* (No. SN06113). London: House of Commons Library. Retrieved from [dera.ioe.ac.uk/22847/](http://dera.ioe.ac.uk/22847/)
- NAS. (2014). *Apprenticeship Vacancies increase by a quarter year on year* (Press Release). London: National Apprenticeship Service. Retrieved from <http://webarchive.nationalarchives.gov.uk/20141006151154/http://www.apprenticeships.org.uk/news-media/latest-news/article398.aspx>
- Newton, B., Miller, L., Williams, J., Buzzeo, J., & Hinks, R. (2015). Process evaluation of apprenticeship trailblazers: final report. Retrieved from <http://dera.ioe.ac.uk/24739/1/BIS-15-629-process-evaluation-of-apprenticeship-trailblazers.pdf>
- Nolan, P. (2001). The future of work. Presented at the Work, Employment and Society Conference, Nottingham.
- Ofsted. (2015). *Apprenticeships: developing skills for future prosperity* (No. 150129). Manchester: Office for Standards in Education, Children’s Services and Skills (Ofsted). Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/469814/Apprenticeships\\_developing\\_skills\\_for\\_future\\_prosperity.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/469814/Apprenticeships_developing_skills_for_future_prosperity.pdf)
- ONS. (2015a). *An International Perspective on the UK - Gross Domestic Product*. London: Office for National Statistics. Retrieved from <http://www.ons.gov.uk/ons/rel/elmr/an-international-perspective-on-the-uk/gross-domestic-product/art-gdp.html#tab=abstract>
- ONS. (2015b). *Business Register and Employment Survey (BRES), 2013 revised Release* (Table 4 Region by Broad Industry Group (SIC2007)). London: Office for National Statistics. Retrieved from <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-391230>
- Osterman, P. (2008). Improving Job Quality: Policies Aimed at the Demand Side of the Low Wage Labor Market. In T. J. Bartik & S. N. Houseman (Eds.), *A Future of Good Jobs? America’s Challenge in the Global Economy* (pp. 203–244). Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Pilz, M. (2013). Book Review - Contemporary apprenticeship: international perspectives on an evolving model of learning, by Fuller, A. and L. Unwin (eds.). *Journal of Vocational Education & Training*, 1–3. <http://doi.org/10.1080/13636820.2013.861633>

- Radley, S. (2015, November 27). Key issues remain on Apprenticeships Levy. Retrieved from <http://www.citb.co.uk/news-events/blogs/key-issues-remain-on-apprenticeships-levy/>
- Richard, D. (2012). *The Richard Review of Apprenticeships* (No. BIS/12/1323). London: Department for Business, Innovation and Skills. Retrieved from <https://www.gov.uk/government/publications/the-richard-review-of-apprenticeships>
- Rienzo, C. (2015). *Migrants in the UK Labour Market: An Overview* (Briefing). Oxford: The Migration Observatory, University of Oxford. Retrieved from <http://www.migrationobservatory.ox.ac.uk/briefings/migrants-uk-labour-market-overview>
- Ryan, P., & Unwin, L. (2001). Apprenticeship in the British "Training Market." *National Institute Economic Review*, 178(1), 99–114. <http://doi.org/10.1177/002795010117800114>
- SFA. (2015a). *Apprenticeship trailblazer quality statement*. London: Skills Funding Agency. Retrieved from <https://www.gov.uk/government/publications/Apprenticeship-trailblazer-quality-statement>
- SFA. (2015b). *Approved Apprenticeship Funding Agencies*. London: Skills Funding Agency. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/468686/Approved\\_list\\_of\\_ATAs\\_-\\_14.10.15.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/468686/Approved_list_of_ATAs_-_14.10.15.pdf)
- SFA. (2015c). *Higher Apprenticeship and Degree Apprenticeship: Delivery from April 2015 to April 2016* (Fact Sheet No. Version 1). London: Skills Funding Agency. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/412019/Higher\\_Apprenticeship\\_and\\_Degree\\_Apprenticeship\\_Delivery\\_from\\_April\\_2015\\_to\\_April\\_2016.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/412019/Higher_Apprenticeship_and_Degree_Apprenticeship_Delivery_from_April_2015_to_April_2016.pdf)
- SFA. (2015d). *Statistical First Release: Further Education and Skills: Learner Participation, Outcomes and Level of Highest Qualification Held* (No. SFA/SFR 30). Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/468833/SFR\\_commentary\\_October\\_2015\\_ofqual\\_update.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/468833/SFR_commentary_October_2015_ofqual_update.pdf)
- SFA. (2015e). *Trailblazer Apprenticeship Funding 2014 to 2015: Requirements for Employers* (No. Version 2). London: Skills Funding Agency. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/412179/Trailblazer\\_Apprenticeship\\_Funding\\_2014\\_to\\_2015\\_Requirements\\_for\\_Employers.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/412179/Trailblazer_Apprenticeship_Funding_2014_to_2015_Requirements_for_Employers.pdf)
- SFA/DBIS. (2015a). *FE data library: apprenticeship vacancies*. London: Skills Funding Agency/Department for Business, Innovation and Skills. Retrieved from <https://www.gov.uk/government/statistical-data-sets/fe-data-library-apprenticeship-vacancies>
- SFA/DBIS. (2015b). *Further education and skills: statistical first release* (No. SFA/SFR31). London: Skills Funding Agency/Department for Business, Innovation and Skills. Retrieved from <https://www.gov.uk/government/statistics/learner-participation-outcomes-and-level-of-highest-qualification-held>
- Smithers, A. (1997). A Critique of NVQs and GNVQs. In S. Tomlinson (Ed.), *Education 14-19: critical perspectives* (pp. 55–70). London: Athlone Press.
- Steedman, H. (2001). Five Years of the Modern Apprenticeship Initiative: An Assessment against Continental European Models. *National Institute Economic Review*, 178(1), 75–87. <http://doi.org/10.1177/002795010117800112>
- Steedman, H. (2010). *The State of Apprenticeships in 2010* (A Report for the Apprenticeship Ambassadors Network No. CEPSP22). London: Centre for Economic Performance, London School of Economics and Political Science. Retrieved from <http://cep.lse.ac.uk/pubs/download/special/cepsp22.pdf>
- Steedman, H. (2011). *Apprenticeship policy in England: Increasing skills versus boosting young people's job prospects* (CEP Policy Analysis No. CEPPA013). London: Centre for Economic Performance, London School of Economics and Political Science. Retrieved from <http://cep.lse.ac.uk/pubs/download/pa013.pdf>

- Steedman, H. (2015, July 17). The apprenticeship levy: employers' reluctance to contribute to apprentice training costs leaves government little choice [LSE Blogs: Politics and Policy]. Retrieved from <http://blogs.lse.ac.uk/politicsandpolicy/the-apprenticeship-levy-employers-reluctance-to-contribute-to-apprentice-training-costs-leaves-government-little-choice/>
- Steedman, H., Gospel, H., & Ryan, P. (1998). *Apprenticeship: A Strategy for Growth* (Special Report). London: Centre for Economic Performance, London School of Economics and Political Science. Retrieved from [http://eprints.lse.ac.uk/20248/1/Apprenticeship\\_A\\_Strategy\\_For\\_Growth.pdf](http://eprints.lse.ac.uk/20248/1/Apprenticeship_A_Strategy_For_Growth.pdf)
- The Economist. (2015, August 15). Can we fix it? No we can't. *The Economist*. Retrieved from <http://www.economist.com/news/britain/21661026-shortage-bricks-and-bricklayers-could-slow-pace-housebuilding-can-we-fix-it-no-we>
- The Financial Times. (2015, August 7). Summer Budget: Employers angry over plan for apprenticeships levy. Report by Helen Warrell and Sarah Gordon. *The Financial Times*. London. Retrieved from <http://www.ft.com/cms/s/0/158dd0ce-257f-11e5-bd83-71cb60e8f08c.html#axzz3zve1I7vv>
- The Guardian. (2013, September 23). Can the UK master apprenticeships? BPP Professional Apprenticeships supplement, report by Hamish Mcdonnell. *The Guardian*. London. Retrieved from <http://www.theguardian.com/bpp-professional-apprenticeships/can-the-uk-master-apprenticeships>
- The Guardian. (2014, May 2). Twelve applications are submitted for every UK apprenticeship. Report by Katie Allen. *The Guardian*. Retrieved from <http://www.theguardian.com/business/2014/feb/05/twelve-applications-every-apprenticeship-minister-matthew-hancock>
- The Guardian. (2015a, June 24). "At some point we will have no one coming into the construction industry". Report by Katie Allen. *The Guardian*. London. Retrieved from <http://www.theguardian.com/business/2015/jun/24/construction-industry-apprenticeships-skilled-workers-training>
- The Guardian. (2015b, October 2). UK needs plumbers, builders and engineers as skill crisis hits economy. Report by Karl West. *The Guardian*. London. Retrieved from <http://www.theguardian.com/business/2015/feb/10/uk-plumbers-builders-engineers-skill-crisis-economy>
- The Independent. (2015, August 30). "Mad" apprenticeship targets have consigned a generation to low-skill, low-paid duties. Report by Oliver Wright. *The Independent*. London. Retrieved from <http://www.independent.co.uk/news/uk/politics/mad-apprenticeship-targets-have-consigned-a-generation-to-low-skill-low-paid-duties-10479123.html>
- Toner, P. (2008). Survival and Decline of the Apprenticeship System in the Australian and UK Construction Industries. *British Journal of Industrial Relations*, 46(3), 431–438. <http://doi.org/10.1111/j.1467-8543.2008.00680.x>
- Turner, M. (2015, February 9). More needs to be done to promote STEM apprenticeships [CASE blog post]. Retrieved from <http://sciencecampaign.org.uk/?p=18361>
- UCAS. (2015). *June Deadline Analysis: deadline Tuesday 30 June 2015*. London: UCAS Analysis and Research. Retrieved from [https://www.ucas.com/sites/default/files/age\\_mr\\_june\\_150630.pdf](https://www.ucas.com/sites/default/files/age_mr_june_150630.pdf)
- Unionlearn. (2011). *Learning and Skills Policy Newsletter*. London: Unionlearn/TUC. Retrieved from <https://www.unionlearn.org.uk/news/learning-and-skills-policy-newsletter>
- Walker, I., & Zhu, Y. (2013). *University degrees: impact on lifecycle of earnings* (Research and Analysis No. BIS/13/899). London: Department for Business, Innovation and Skills. Retrieved from <https://www.gov.uk/government/publications/university-degrees-impact-on-lifecycle-of-earnings>
- Winterbotham, M., Davies, B., Murphy, L., Huntley Hewitt, J., & Tweddle, M. (2014). *Apprenticeship pay survey 2014* (No. BIS Research Paper No. 207). London: IFF Research/Department for

Business, Innovation and Skills. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/387319/bis-14-1281-apprenticeship-pay-survey-2014.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387319/bis-14-1281-apprenticeship-pay-survey-2014.pdf)

Wolf, A. (2011). *Review of Vocational Education - The Wolf Report* (No. DFE-00031-2011). London: Department for Education and Department for Business, Innovation and Skills. Retrieved from <https://www.gov.uk/government/publications/review-of-vocational-education-the-wolf-report>

Wolf, A. (2015). *Fixing a Broken Training-System: The case for an apprenticeship levy*. London: Social Market Foundation. Retrieved from <http://www.smf.co.uk/publications/fixing-a-broken-training-system-the-case-for-an-apprenticeship-levy/>