

Review of Apprenticeships Research

A summary of research published since 2010

Prepared for

The National Apprenticeship Service
and the Department for Business Innovation and Skills

By

Lynn Gambin, Terence Hogarth and Alan Brown

Institute for Employment Research
University of Warwick
Coventry, UK
CV4 7AL
Lynn.Gambin@warwick.ac.uk

WARWICK INSTITUTE *for*
EMPLOYMENT RESEARCH



July 2012

CONTENTS

Executive summary	i
1. Introduction	1
2. Recent Policy Developments	2
2.1 The Historical Context	2
2.2 Recent Policy Developments	3
3. Current levels of participation	6
3.1 Learner Participation	6
3.2 Employer Engagement (2009 and 2010)	9
3.3 Conclusion.....	11
4. Recent research: INDIVIDUAL APPRENTICES	12
4.1 Themes in the Literature on Apprenticeships	12
4.2 Attractiveness of Apprenticeships to Individuals.....	13
4.3 Equality Issues in Apprenticeships and Barriers to Participation	14
4.4 Assisting Disadvantaged Groups	16
4.5 Improving participation of individuals in Apprenticeships	17
4.6 Impact of Loans on Participation Levels	18
4.7 Conclusion.....	20
5. Recent research: EMPLOYERS	22
5.1 Employer Engagement in Apprenticeships	23
5.2 Reasons for Employer Engagement	25
5.3 Barriers to Employer Engagement	26
5.4 Promoting Employer Engagement	27
5.5 The Employer and the Training Provider	32
5.6 Criticisms of the Employers' Role in Apprenticeships.....	34
5.7 Conclusion.....	36
6. Recruitment, Progression and Returns	39
6.1 Recruitment, Retention and Completion	40
6.2 Progression Routes.....	43
6.3 Barriers to Progression	48
6.4 Wages and Terms and Conditions of Employment.....	50
6.5 Returns to Apprentices.....	54
6.6 Returns to Employers.....	58
6.7 The Total Economic Returns to Apprenticeships	60
6.8 Conclusion.....	61
7. Sector-specific and International evidence	64
7.1 Lantra (land-based and environmental sector)	64
7.2 Construction	65
7.3 Other Sector-Specific Research.....	67
7.4 Insights from Abroad	67
7.5 Conclusion.....	70
8. Final comments	72
Bibliography	73

EXECUTIVE SUMMARY

Given increased public interest and investment of public funds in Apprenticeships, there has been a significant increase in research concerned with various aspects of the programme in the UK (and particularly England). The University of Warwick Institute for Employment Research (IER) was commissioned by the Department for Business, Innovation and Skills (BIS) and the National Apprenticeship Service (NAS) to review recent research on Apprenticeships. This review covers published research from January 2010 to March 2012 to provide an overview of the most up to date evidence on a range of issues to do with Apprenticeships.

Current levels of engagement

Skills have been placed centre stage over the past 20 years by a succession of Governments' plans to improve the competitiveness of the national economy. The rationale for doing so is relatively simple: without the skills and know-how to develop new, higher value products and processes, and a skilled workforce to produce them, the economy will fall behind those of competitor countries who are doing likewise. The *Plan for Growth* is no different in this respect from previous Government documents which have set out how competitiveness can be improved.

Where current policy breaks new ground is with regard to the primacy afforded to Apprenticeships as a means to boost national vocational skills supply and, in particular, grant young people entry to employment via training positions. In a time of constrained public budgets, the Government has continued to commit to significant investment in Apprenticeships.

The participation of learners in Apprenticeships has increased significantly in recent years. Growth has been particularly strong with respect to the number of starts of intermediate Apprenticeships (Level 2) and the number of older apprentices (particularly those aged 25 years and older). The latest figures on Apprenticeship starts also confirm that the target to provide 50,000 new adult (19+) Apprenticeships was met in 2010/11. The number of achievements too, is substantial, with more than 200,000 apprentices successfully completing their programmes in 2010/11.

Whilst learner volumes are rising, employer engagement with Apprenticeships has been more problematic. Recent surveys show that whilst awareness of Apprenticeships amongst employers is high (91 per cent of employers were aware of Government-funded Apprenticeships in 2009), the share of employers engaged in the programme is still relatively low. In 2009, 8 per cent of employers were found to offer Apprenticeships but only 4 per cent currently employed apprentices (UKCES, 2010). In 2010, 9 per cent of establishments either currently had apprentices or offered Apprenticeships (Shury *et al.*, 2011). Larger employers

(employing 250 or more staff) are found to be more likely to offer Apprenticeships than smaller ones and some differences across sectors are also evident with the likelihood of employer engagement being higher in construction and engineering and lower in business services and agriculture.

Whilst the main thrust of recent policy may have been on increasing participation levels in Apprenticeships, increasingly policy has sought to ensure that Apprenticeships provide structured new learning which will lead to the acquisition of new skills regardless of whether the apprentice is a new recruit to a training position or an existing employee. This was made manifest in the 2010 Specification of Apprenticeship Standards in England (SASE) with its recommendations on the minimum number of guided learning hours as well as the Ministerial statement requiring that Apprenticeships have a minimum duration of 12 months (December 2011).

Recent Research: Individual Apprentices

Apprenticeship appears to present an appealing option for individuals' skills development as evidenced by high numbers of applicants for the most attractive Apprenticeship offerings (Wolf, 2011; The Guardian, 2010) and high levels of interest overall (Diamond *et al.*, 2010). Satisfaction with the programme is also relatively high amongst apprentices themselves (Tue *et al.*, 2011).

Participation in Apprenticeships by gender and black and minority ethnic (BAME) groups is uneven with evidence of gender-related occupational segregation (Fuller and Davey, 2010; Campbell *et al.*, 2011) and underrepresentation of BAME groups across the programme and especially within particular sectors, such as construction (Fuller and Davey, 2010). Participation of people with learning difficulties and disabilities in Apprenticeships is also relatively low.

A number of changes to Apprenticeship may potentially impact on certain groups of learners but the particular nature of changes will determine both the size and nature (positive or negative) effect on these groups. The effects of targeting efforts to increase participation at certain sectors will depend on what sectors are concerned. Prioritisation of construction over health and social care, for example, would most certainly have adverse effects for females and individuals from BAME group (BIS 2011a). Similarly, prioritising younger Apprenticeship participation would likely have a positive impact on people with learning difficulties and / or disabilities as these are more prevalent amongst younger learners (*Ibid.*).

Ways to encourage participation of disadvantaged groups and overall levels of participation in Apprenticeship have also been considered in recent research. Improving the flexibility of programmes and increasing the use of publically designed programmes have been suggested as ways to increase participation amongst disadvantaged and disengaged groups

(Anderson *et al.*, 2010). Improvements in the provision of IAG have also been highlighted as important factors in increasing levels of interest and participation in Apprenticeships overall, as well as for particular groups for which current levels of engagement are low (House of Lords, 2007; Ofsted, 2010b). Analysis of the potential impact of training loans on participation in Apprenticeships suggests that learners will be sensitive to the price of training but the magnitude of impact is yet to be determined (BIS, 2011b).

Recent Research: Employers

The employer plays a vital role in Apprenticeships and enhancing their engagement with the programme is of increasing interest. Levels of employer engagement in Apprenticeships in England is low compared to the levels observed in other systems such as Germany (Steedman, 2010) and stimulating employer demand for Apprenticeships has been a longstanding priority of VET policy.

Unsurprisingly, larger firms have been found to most commonly engage with Apprenticeships (UKCES, 2010; McIntosh, 2011; Shury *et al.*, 2011) but it has also been found that the number of apprentices per 1,000 staff is higher in smaller firms. Variation in engagement is also observed between sectors with employers in 'traditional' Apprenticeship sectors (e.g. construction and engineering) exhibiting higher levels of engagement than those in relative newcomers to the provision of Apprenticeships (e.g. financial services).

Though employer engagement is relatively low, the research indicates that there are a number of benefits to employers stemming from employing apprentices - many of which are reported by employers themselves. Employers are found to be attracted to the concept of Apprenticeship training (*i.e.* combining productive work with training) as well as the opportunities Apprenticeship presents for: instilling the organisation's values and culture in apprentices; developing the skills of their future workforce; and fulfilling specific skill needs of the business (Gambin *et al.*, 2010; C&G, 2011; Elston and James, 2011).

Recent research has also explored the barriers to engagement often reported by employers. Lack of demand is the main factor which discourages employers from taking on apprentices and employers often report that they do not require the level of skills provided through Apprenticeships (Elston and James, 2011). It has been found that companies with higher quality product market strategies are more likely to offer Apprenticeship training. Stimulating product market strategies which require intermediate level skills then would help to increase employers' take up of Apprenticeships.

Some studies have also found that the costs of providing Apprenticeships discourage employers from doing so. The costs considered by employers include administrative burden, apprentices' time away from the workplace and time spent by other employees on supervising apprentices in the workplace (e.g. C&G, 2011). Cost factors have been found to

be a reason for not participating more commonly reported by smaller employers than larger ones (Shury *et al.*, 2011).

Initiatives aiming to overcome the barriers faced by employers in engaging with the Apprenticeship programme have been introduced or piloted in recent years, including the Apprenticeship Vacancies System (Diamond *et al.*, 2010), the ATA/GTA Pilots (Turner, 2011) and the AGE programme for employers (Wiseman *et al.*, 2011). The evaluations of such initiatives have shown some positive outcomes. In the case of the Apprenticeship Vacancies System, whilst at the time of the evaluation the effects on employers were found to be relatively minor (the system was found to have promoted much higher levels of learner engagement than employer engagement), there is potential for this system to have much greater benefits for employers and the evaluation sets out a number of recommendations on how these can be realised. The alternative approaches to employer engagement represented by the ATA/GTA pilots have been found to be well-received by employers and training providers and have encouraged higher levels of participation by employers. Similarly, the AGE programme was found to have had significant positive effects on encouraging employers to engage with Apprenticeships for the first time. It has been recognised that in promoting employer engagement with Apprenticeships, there is a need to consider more than just financial incentives (Abdel-Wahab *et al.*, 2010) – the AVS and ATA/GTA address some of these non-financial aspects.

The relationship between employers and training providers has also been considered. Whilst some have suggested that the training provider adds little value to Apprenticeship training (e.g. Wolf, 2011), other studies have found that there are many cases where training providers are considered to be important in successful provision of Apprenticeships (Hogarth *et al.*, 2009; Tu *et al.*, 2011) and that there is evidence of good practice amongst providers (Ofsted, 2010b).

Apprenticeship quality

Questions over the level of new learning and skill acquisition found in some Apprenticeships as well as concerns regarding the quality of Apprenticeship training have been raised in some recent publications (e.g. Keep and James, 2011; James, 2010; Grindrod and Murray, 2010). Examination of such issues is important in ensuring that where there are problems with the programme they can be addressed but it should be noted that some of the particular aspects brought out in such studies should not be considered to apply to all Apprenticeships and many criticisms are based on few case studies or small sample numbers. There is much evidence of the programme working well and bringing benefits to individuals, employers and the economy as a whole, which refute some of the criticisms.

Apprenticeship has been increasingly used as a means of continuing vocational education and training people who are already in employment. There are many examples of

companies such as the food store chain Morrisons, along with many other employers, using Apprenticeships as a means to further develop the skills of their workforce and provide them with an externally accredited and highly regarded qualification. As a form of continuing vocational education and training, Apprenticeship has increasingly been able to meet the skill needs of existing workers and provide those who missed out the first time around to gain formal qualifications.

Evidence from the Apprentice Pay Survey (Tu *et al.*, 2012), however, indicates that under some Frameworks the volume of training being undertaken is quite modest. Around 20 per cent of apprentices indicated that they had received neither on- nor off-the-job training and training appears to be more integral to some frameworks than others. Apprentices in retail, customer service and hospitality and catering, for example, were more likely to report that they had not received training (either on- or off-the-job). Off-the-job training was most common in frameworks, such as children's care, learning and development, engineering, construction and hairdressing, which require more technical or specific skills. Where received, apprentices in Great Britain spent, on average, 6.5 hours per week in off-the-job training, and 12.6 hours per week in on-the job training, on average. Hours in both types of training were higher for technical/theoretical frameworks such as construction, engineering and electrotechnical. Evidently, Apprenticeships comprise a heterogeneous group of programmes.

Recruitment, progression and returns

Progression beyond Apprenticeship onto further study, in further or Higher Education has also received significant attention in a number of recent studies. Providing a platform for further progression is considered to be one element of good practice in Apprenticeship training provision yet the incidence of apprentices moving onto Higher Education (or other study) is found to be low. There is room for improvement however, as some studies have found that many apprentices have ambitions to continue onto other learning (including HE study) and that a number of employers are supportive of progression.

The research suggests that there is a need to ensure that there are opportunities for progression that are appropriate for apprentices (e.g. higher Apprenticeships, Foundation degrees) and that these (and other routes) are better sign-posted. Amongst employers also there is not an outstanding level of awareness regarding progression opportunities for apprentices and although there are indications that employers support progression the level of support varies and many employers do not see the need for higher level skills within their organisations. This latter issue is especially relevant given the recent requirement for all apprentices to be employed.

The wages and terms and conditions of employment for apprentices have also been examined in recent studies. The survey of Apprenticeship pay carried out in 2007 (Fong and

Phelps, 2008) and the most recent 2011 survey (Tu *et al.*, 2012) as well as other studies (Lawton and Norris, 2011; Elston and James, 2011) have found variation across sectors in terms of average pay levels and in terms of employer views on pay (Lawton and Norris, 2011). A gender-related pay gap has also been found for apprentices and this has been largely attributed to over-representation of females in lower paying sectors and under-representation in higher paying sectors (Elston and James, 2011). International comparisons have shown average levels of apprentice pay to be higher in England to be higher than that found elsewhere in Europe and other countries with well-established Apprenticeship systems (Ryan *et al.*, 2010; Steedman, 2010).

A number of recent studies have estimated the wage returns (and other returns) to apprentices (McIntosh, 2007; Patrignani and Conlon, 2011; Conlon *et al.*, 2011; NAO, 2012). Substantial wage returns have been found to be associated with completion of Apprenticeships, the magnitude of the returns is found to vary by sector and level as well as the estimates being sensitive to methodological differences. These studies also indicate a positive association between Apprenticeship training and the probability of being in employment.

Other studies have found significant returns to employers who train through Apprenticeship. The Net Benefits of Training Series has demonstrated positive returns to employer investment in Apprenticeship over the past 15 years and have found that employers can expect to recoup their investments in such training within a relatively short period of time post-completion, provided that apprentices stay with the company.

Various analyses of the returns to Apprenticeships which use a variety of datasets and approaches indicate that there are a number of positive returns associated with the programme for individuals, employers and the economy as a whole. The recent NAO report on adult Apprenticeships has highlighted the sensitivity of estimates of the returns to Apprenticeships to the underlying assumptions used in any analysis. Even considering methodological differences between recent studies, the evidence is in support of there being substantial positive gains associated with Apprenticeships for individuals, employers and the State.

Sector-specific and international evidence

Recent reports on Apprenticeship have illustrated differing experiences of individuals and employers across different sectors of the economy with the returns to such training found to differ by sector (*e.g.* Conlon *et al.*, 2011) and participation rates of both individuals and employers vary by sector (*e.g.* UKCES, 2010; Shury *et al.*, 2011). Sector-specific studies highlight key areas of concern for different sectors as well as differences in approaches to training and funding training.

A number of studies discussed throughout this review present at least some differences between the Apprenticeship system in England (and the UK) and the systems operating in other countries. The aim of this review has been to highlight international studies which provide particular insights that can benefit Apprenticeships in England and the rest of the UK. Two substantial reports (Steedman, 2010; Vogler-Ludwig *et al.*, 2012) have been published recently which provide analysis of various systems of Apprenticeships and draw out useful lessons for the UK. It is necessary, however to realise that the countries to which the UK is typically compared differ from the UK in a number of ways, not only in terms of the design and operation of VET systems but also in terms of wider institutional and cultural settings. Such differences affect the degree to which insights from abroad can be useful for the UK.

Conclusions

The Apprenticeship programme is one which has survived recent public spending reviews and has received considerable support from Governments across all parties. As an area of policy priority, it is fully expected that Apprenticeships will continue to gain interest and will be subject to further evaluation and study over the coming years.

The research reviewed here provides a number of results which support previous research findings such as, the existence of substantial returns to individuals and employers from Apprenticeships as well as the existence of barriers to participation for both employers and would-be apprentices. Also brought to the fore are areas of particular concern including the quality of Apprenticeships, relatively low rates of progression beyond Apprenticeships (and within the Apprenticeship programme), persistently low levels of employer engagement, and equality issues in terms of the participation of various groups of learners (e.g. females, BAME, LDD).

In drawing conclusions from the research that has been discussed here, it is important to bear in mind the assumptions underlying each study as well as the methodological approaches used which impact significantly on the overall findings. Whilst providing some interesting insights, care should be taken when considering research based on a small number of case studies, or in some instances, on just one or two employers. The evidence base has however expanded in the past two years and increasingly much of this evidence has been based on robust analysis of large datasets.

It is also important, in the context of Apprenticeships, to recognise that there is much variation between sectors. This is not necessarily problematic but one it is an aspect of the programme that needs to be accommodated in any approach to analysing the outcomes associated with Apprenticeships. The latest research largely confirms that there is much heterogeneity within Apprenticeships in terms of engagement, returns and other outcomes as well as the features of various frameworks. It is necessary to bear this heterogeneity in

mind when carrying out analysis of the programme and when interpreting the results of any study.

The benefits of Apprenticeships to both employers and apprentices are now firmly established in the research evidence. One of the big challenges remains being able to communicate that message to a wider range of participants. The main issues for the programme which are likely to be considered in further research on Apprenticeships include:

- a relatively small share of employers participate in Apprenticeships despite the considerable success over recent years in increasing the number of apprentices (all of whom now have employed status);
- the population of apprentices is not necessarily representative of the population;
- reduced State funding for some Apprenticeships may well reduce some employers' and some individuals' propensities to participate;
- the drive to improve quality, whilst beneficial from both the employer and the individual's perspective, will nonetheless place more demands on all parties involved in delivering Apprenticeships.

BIS and NAS have commissioned a number of studies considering these and other aspects of the programme. A number of reports which will shed a considerable amount of light on these issues are expected to be published in the coming months and will be reviewed in subsequent updates to this literature review.

1. INTRODUCTION

Given the increased interest and investment of public funds in Apprenticeships, it is not surprising that the quantity of research and evaluations related to the programme has been increasing at a significant pace. The University of Warwick Institute for Employment Research (IER) was commissioned by the Department for Business, Innovation and Skills (BIS) and the National Apprenticeship Service (NAS) to carry out a review of recent research on Apprenticeships. This review covers published research from January 2010 to March 2012 to provide an overview of the most up to date evidence on a range of issues to do with Apprenticeships.

Current policy has afforded additional importance on Apprenticeships as a means to boost national vocational skills supply and, in particular, grant young people entry to employment via training positions. At a time of fiscal constraint, the Government has continued to make substantial investments in Apprenticeships. As such, there is a need to be cognisant of the recent research into various aspects of Apprenticeship including participation, outcomes and delivery.

This review includes academic publications, Government commissioned research reports and evaluations, and various commentaries on issues concerned with Apprenticeships. The focus is predominantly on England and, to a lesser extent, the UK, but relevant international evidence has also been included. The literature review is aligned with themes which have emerged in recent research so that the overall findings and key messages might be most efficiently used to inform policy.

The remainder of this report is structured as follows. The next chapter considers the recent policy developments in Apprenticeships. Chapter 3 outlines recent trends in participation and engagement in the programme, drawing on official figures and the latest National Employers Skills Survey and the Employer Perspectives Survey. The main review of literature is presented in Chapters 4 through to 7. The chapters consider recent research on: the individual apprentice (Chapter 4); employers (Chapter 5); recruitment, progression and the returns to Apprenticeship (Chapter 6); and, sector-specific and international research (Chapter 7). Concluding remarks are provided in Chapter 8.

2. RECENT POLICY DEVELOPMENTS

2.1 The Historical Context

For the purposes of this review, Apprenticeship is defined as the publicly funded training programme which has become the principal work-based training option for many young, and increasingly older, people in England. As a training programme, it has been subject to much review and reform in its modern incarnation following the introduction of Modern Apprenticeships in 1994.

Historically, Apprenticeship training was demand driven with employers establishing the number of apprentices they wanted to take on, then recruiting young people with the academic credentials required and delivering training to apprentices according to established patterns in their industry. Employer training levies, which existed in several industries during the 1960s and 1970s, such as engineering, acted to stimulate employer demand because this was one means through which employers could recoup their levy payment. From the late 1960s onwards, the decline of the manufacturing sector and consequently the number of Apprenticeships it offered, the demise of the Industrial Training Boards and, later, the emergence of high levels of youth unemployment, led to Government introducing a range of training schemes aimed at young people (e.g. the Youth Training Scheme, YTS). Over a period of time, Government-funded training schemes came to subsume Apprenticeship training (Hogarth *et al.*, 2012a).

Government launched Modern Apprenticeships in 1994 in response to concerns that the supply of intermediate skills (*i.e.* Level 3) was lower than in competitor countries (Unwin and Wellington, 2001). Modern Apprenticeships comprised ‘foundation’ Apprenticeships (which incorporated a number of existing Government-funded training schemes) which led to the award of a Level 2 qualification, and ‘advanced’ Apprenticeships which allowed young people to progress to a Level 3 qualification. The extent to which Modern Apprenticeships subsumed all Apprenticeship training is unknown as there has never been systematic collection of data on the extent to which Apprenticeship training takes place outside the Government-funded scheme, though there are examples of studies that show substantial activity in this regard (e.g. a Chartered Institute of Personnel and Development survey indicated that around a fifth of employers (21 per cent) provided Apprenticeship-style training outside of the Government-funded programme (CIPD, 2005) and a study by commissioned by Lantra found that 24 per cent of employers surveyed offered training similar to Apprenticeships but did not use the publicly funded programmes (CFE, 2010)).

Prior to the introduction of Modern Apprenticeships, Government-funded programmes such as YTS were not held in high regard by young people and their parents, who often considered that such schemes supplied employers with subsidised labour without any

guarantee of receiving training, obtaining a qualification, or employment once the placement had come to an end (Fuller and Unwin, 2003). Modern Apprenticeships however sought to improve this image by offering a programme of training designed by employers, via National Training Organisations (and later the Sector Skills Councils), that led to an externally accredited qualification. Early research (carried out around the time Modern Apprenticeship was first introduced) found that the programme was successful in increasing provision at Levels 2 and 3 across the economy, and that while there was substantial deadweight observed in industries with a long history of Apprenticeship training (e.g. engineering and manufacturing), this was considered to be unavoidable to extend Apprenticeship beyond more traditional apprentice-training industries (Hasluck *et al.* 1997).

2.2 Recent Policy Developments

Maintaining quality standards has become an increasingly important policy goal in order to ensure that apprentices and employers are best served by Apprenticeship system. The former Adult Learning Inspectorate was critical of poor training standards in health and social care, construction, and hospitality and catering (Adult Learning Inspectorate 2004), for example, and since then there has been considerable progress made in reducing the presence of weak training providers through the introduction of Minimum Levels of Performance (MLP) criteria. The Apprenticeships, Skills, Children and Learning Act 2009 has established statutory obligations between all the parties involved in Apprenticeships (ASCL 2009). The Specification of Apprenticeship Standards for England (SASE) sets out the minimum requirements for a recognised Apprenticeship framework and compliance with the SASE is a statutory requirement of the ASCL.

Today, Apprenticeship in England is, in essence, a system which comprises a number of programmes (Frameworks). Whilst Frameworks contain a number of common elements they also reveal a wide variety of activity depending upon, amongst other things, the content of the Framework and the level of learning. Indeed this is considered to be one of the strengths of the Apprenticeship system in England - a system which is responsive and can adapt to labour market demand and, in so doing, meets the skills needs of both the employer and the apprentice.

In practice, what constitutes an Apprenticeship varies across sectors and levels of training and even between employers. Apprenticeship is a heterogeneous programme of vocational preparation with substantial differences in, for instance, the duration of the Apprenticeship and the volume of formal, off-the-job training delivered, depending upon the particular Framework being considered. Even within Frameworks there is likely to be variation with respect to the delivery of the Apprenticeship. As a programme, Apprenticeship is designed to be flexible and able to adaptive to the needs of employers and apprentices across the economy as a whole. Given the differing work environments and skill needs in, say,

engineering versus retailing, there is no reason to expect the content or cost of training to be the same across sectors.

Some commentators have suggested that training that satisfies the definition of an Apprenticeship in England would not necessarily meet the definition of Apprenticeship in continental Europe, especially where it is at Level 2 (James, 2010; Keep and James, 2011). This is a moot point; Apprenticeship provides a structure of training which is potentially applicable at any level: workplace based training where people are able to engage in various types of training at the same time as being able to put into practice what they have learnt during work. Why there should be consternation that it should be offered at Level 2 is difficult to comprehend.

The principal changes which have recently taken place in policy relate primarily to driving up quality standards resulting from the introduction of the 2010 Specification of Apprenticeship Standards in England and the ASCL Act (2010) which now specifies that apprentices must be employed, have a minimum number of guided learning hours. In December 2011, John Hayes, Minister of State for Further Education, Skills and Lifelong Learning announced that from August 2012, Apprenticeships for those aged 16-18 would be required to have a minimum duration of 12 months. The funding rules for 2012/13 also set out that for 19+ apprentices, providers must *'ensure that apprentices aged over 19 years on their start date, have a recorded "minimum planned delivery" (that is, a period of learning and workplace practice) in which they are expected to complete their Apprenticeship which is of twelve months or more, unless there is the accreditation of prior learning'* (Skills Funding Agency, 2012, p. 29).

Following the Comprehensive Spending Review in 2010 the amount of State funding for Further Education and Skills will be reduced by 25 per cent between 2011/12 and 2014/15. This prompted a re-assessment of how the costs of funding FE and Skills should be shared between individuals and the State, and led to a consultation paper on the provision of further education loans to people aged over 24 years working towards a Level 3 or higher qualification (BIS, 2011b; BIS, 2011c). The intention is for the system to work along the lines of that which has been in operation in the higher education sector since the late 1990s however the details of the system are still to be finalised. It is envisaged that the repayment of loans will be contingent upon a person being employed and having earnings above a certain threshold. The justification for the policy is that there are substantial financial benefits to those who obtain Level 3 and above qualifications (e.g. McIntosh, 2007). Consequently, those studying at this level - who are aged over 24 years and over and therefore are more likely to be aware of the need to invest in education and training - might be expected to contribute to the costs of their education and training.

It is also apparent that Apprenticeships have increasingly become a means of delivering continuing vocational education and training (CVET) as well as initial vocational education and training (IVET). In so doing, it has provided many older people, who may have missed out on the opportunity to gain externally accredited qualifications on leaving school, to do so. It is equally apparent that the NAS, as indicated above, has moved to ensure that where Apprenticeship is a form of CVET – or IVET for that matter –it meets certain standards related to learning content.

3. CURRENT LEVELS OF PARTICIPATION

This section considers the latest figures on participation in Apprenticeships based on data from the Statistical First Release (SFR), the National Employer Skills Survey (NESS09) and the Employer Perspectives Survey (EPS2010) for individuals and employers, respectively. The report on the latest Employer Skills Survey (ESS2011) has not yet been published.

3.1 Learner Participation

The number of Apprenticeship starts and achievements in 2010/11 are shown by age and level in Table 3.1. There were more than 450,000 Apprenticeship starts and more than 200,000 achievements across all levels and ages in 2010/11. Older learners (aged 25 years and older) accounted for the highest proportion of Apprenticeship starts at all levels, accounting for 38 per cent and 44 per cent of these Level 2 and Level 3 Apprenticeship starts, respectively. Of starts at Level 2, less than one-third (32 per cent) were under 19 years of age and 22 per cent of advanced Apprenticeship starts were accounted for by the youngest group. Achievements increased by 16.8 per cent from 2009/10 across all levels with an increase of 17.8 per cent in achievements at Level 2 and an increase of 13.6 per cent at Level 3.

There has been a substantial increase in the number of Apprenticeship starts in recent years with a marked increase in start volumes between 2009/10 and 2010/11. The total number of Apprenticeship starts (at all levels) increased by 63.5 per cent between 2009/10 and 2010/11. Over this period the number of intermediate level Apprenticeship starts increased by 58.1 per cent and advanced Apprenticeship starts by 75.5 per cent. There has also been a significant increase in the volume of higher Apprenticeship starts, 47.8 per cent, between 2009/10 though the level is still low at 2,200 in 2010/11.

Figures 3.1 and 3.2 show Apprenticeship starts at Level 2 and Level 3, respectively, by age group from 2002/03 to 2010/11. The participation of older learners (25+) in Apprenticeship has seen a dramatic increase over recent years with the share of starts accounted for by this group increasing from 20 per cent in 2008/09 to 38 per cent in 2010/11 at Level 2 and from 30 per cent to 44 per cent over this period for Advanced Apprenticeships. The data underlying the SFR indicate that the ambition set by BIS (2010) to provide 50,000 new adult (19+) Apprenticeship starts was met in the 2010/11 financial year¹ (The Data Service, 2012). Learners aged 25 and over started 182,100 Apprenticeship frameworks (at all levels) in 2010/11 (academic year), which was more than three times the volume compared to 2009/10.

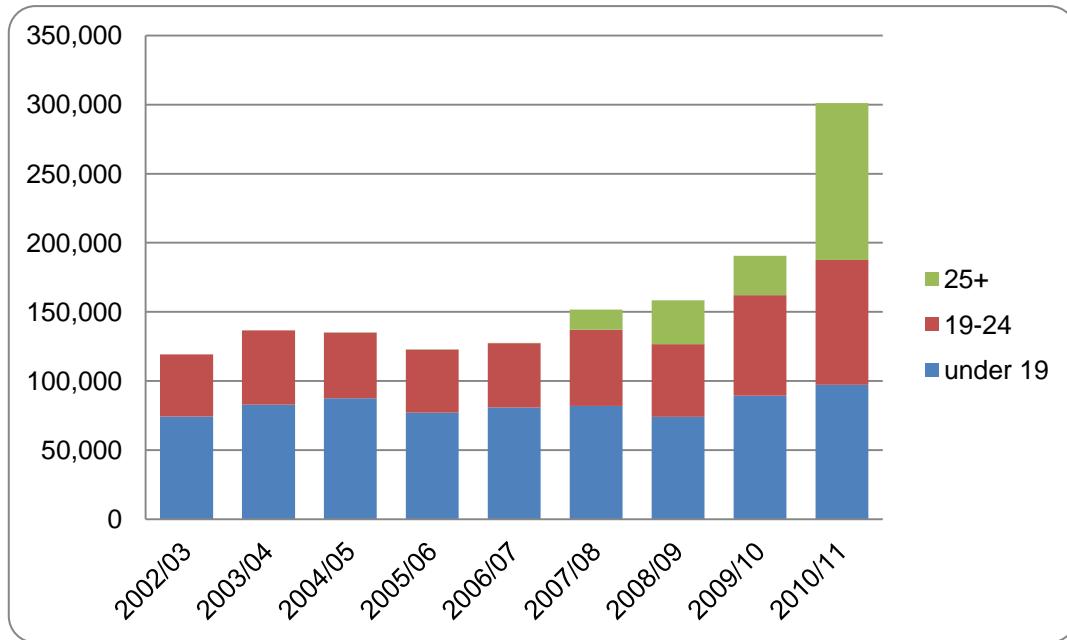
¹ Statistical first releases are based on figures for academic years whilst the BIS targets were in terms of financial years (April to March) but the underlying data allow for analysis by financial years.

Table 3.1: Apprenticeship starts and achievements by level and age, 2010/11

	Intermediate Level Apprenticeship	Advanced Level Apprenticeship	Higher Apprenticeship	All Apprenticeships
Starts				
<i>Count</i>				
Under 19	97,300	34,200	200	131,700
19-24	90,400	51,600	1,300	143,400
25+	113,400	68,000	700	182,100
Total	301,100	153,900	2,200	457,200
<i>column %</i>				
Under 19	32%	22%	9%	29%
19-24	30%	34%	59%	31%
25+	38%	44%	32%	40%
Total	100%	100%	100%	100%
Achievements				
<i>count</i>				
Under 19	59,400	23,900	100	83,300
19-24	48,400	27,700	800	77,000
25+	23,900	15,900	100	39,900
Total	131,700	67,500	1,000	200,300
<i>column %</i>				
Under 19	45%	35%	10%	42%
19-24	37%	41%	80%	38%
25+	18%	24%	10%	20%
Total	100%	100%	100%	100%

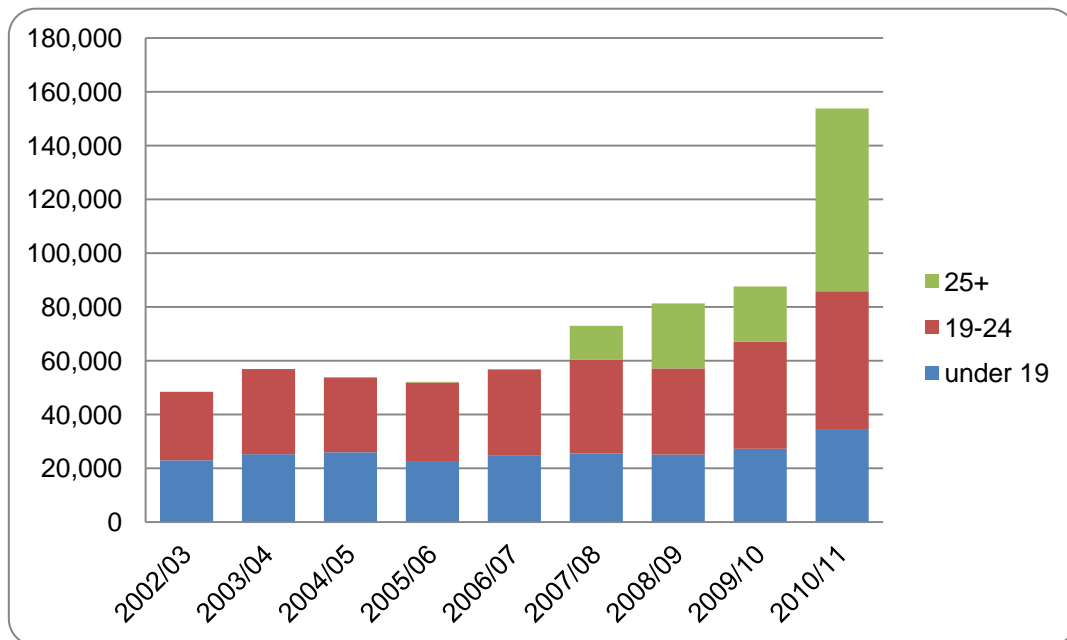
Source: Statistical First Release: DS/SFR13 Published on 31st January 2012

Figure 3.1: Intermediate (Level 2) Apprenticeship starts by age, 2002/03 to 2010/11



Source: Statistical First Release: DS/SFR13 Published on 31st January 2012

Figure 3.2: Advanced (Level 3) Apprenticeship starts by age, 2002/03 to 2010/11



Source: Statistical First Release: DS/SFR13 Published on 31st January 2012

3.2 Employer Engagement (2009 and 2010)

The National Employer Skills Survey for England in 2009 (NESS09) (UKCES, 2010) surveyed more than 79,000 employers in England (generating nearly 1.5 million weighted case) and found that 91 per cent of establishments were aware of Government-funded Apprenticeships though the degree of awareness varied by types of Apprenticeship with employers being least likely to have heard of Higher Apprenticeships (16 per cent).

The UK Employer Perspectives Survey 2010 was a large-scale survey of 14,390 employers by telephone which is representative of the employer population in the UK. Awareness of some programmes of Apprenticeship was found to be higher in the EPS compared to NESS09, with 42 per cent of employers surveyed indicating that they were aware of Higher Apprenticeships, for instance compared to 41 per cent in 2009 (Shury *et al.*, 2011). 52 per cent of employers in Scotland, 53 per cent in Wales and around 40 per cent across the UK were aware of at least one of Advanced Apprenticeships, Apprenticeships for individuals aged 25+, or Higher Apprenticeships.

Overall, eight per cent of employers offered Apprenticeships, but only four per cent currently employed apprentices, according to NESS09. In NESS07, 14 per cent of establishments reported that they had offered Apprenticeships in the previous 12 months, but this figure is not directly comparable to the participation rate found in NESS09 as the period of reference differed between surveys. The authors of the main report for NESS09 (UKCES, 2009) reported a decline in employer involvement with Apprenticeships from 2007 to 2009 as 19 per cent of employers who reported that they offered Apprenticeships in the 2009 survey indicated that the number of apprentices and new trainees they recruited had fallen in response to the recession.

In 2010, 5 per cent of establishments indicated that they currently employed Apprentices while a further 4 per cent indicated that they had no apprentices at the moment but that they (usually) offered Apprenticeships. Another 8 per cent of establishments did not currently offer Apprenticeships but planned to do so in the future. (Shury *et al.*, 2011)

The results of both surveys (NESS and EPS) indicate that participation in Apprenticeships is more common amongst larger employers with NESS09 indicating that the density of apprentices within companies' workforce was higher in smaller companies. In 2009, around 30 per cent of establishments with 500 or more employees reported that they offered Apprenticeships, but just under half of all apprentices were found to be employed in establishments with less than 25 staff. Smaller establishments were found to have more than 8 apprentices per 1,000 staff members compared to only 4.0 per 1,000 staff amongst employers with 200 or more staff. In 2010, more than half of establishments with 250 or more staff were currently involved with Apprenticeships or were planning to offer them in

future whilst this was the case for only 13 per cent of the smallest establishments (with 2 to 4 employees).

According to NESS09, employers were more likely to offer Apprenticeships to individuals aged 19 to 24 years (77 per cent of employers who offered Apprenticeship indicated this) or those aged 16 to 18 (73 per cent) than to those aged 25 or over (59 per cent) – unsurprising as Government funding for 25+ Apprenticeships only became available from 2007. Around 42 per cent of employers who offered Apprenticeships offered them to all three age groups.

NESS09 also showed that, on average, employers were more likely to offer Apprenticeships to new recruits rather than existing employees. Around 25 per cent of employers which offered Apprenticeships indicated that they only offered them to new recruits (taken on specifically as Apprentices) while a further 11 per cent offered them mainly to recruits. Only 11 per cent of employers that offered Apprenticeships made them available to existing staff and 5 per cent mainly offered Apprenticeships to such staff.

Employer involvement in Apprenticeships was found to be most likely for those in the construction and in the electricity, gas & water SIC sectors. Employers in these two sectors had the highest proportion of employees in the sector undertaking Apprenticeships (29 and 13 per 1,000 staff respectively). Employers in financial intermediation and business services were the least likely to have or offer Apprenticeships. The smallest proportion of the sectoral workforce being employed as apprentices was found in transport, storage & communications (2.8 apprentices per 1,000 staff). Sectors that might be considered traditional users of Apprenticeships, and which were found to employ the most Apprentices, were also found to be most likely to strongly favour younger people and to recruit specifically for apprentice positions.

Regional differences in employer involvement in Apprenticeships were also evident in the NESS09 results. The likelihood of employers offering Apprenticeship or having apprentices at the time of the survey was lowest in London with just 5 per cent of employers offering Apprenticeships compared to 8 per cent across the whole of England. The main report concluded that this was a reflection of the industrial make-up of London which has a relatively low share of industries that traditionally employ apprentices. While London was found to have the lowest level of engagement at the time of the survey, employers in London were the most likely to indicate that they expected to offer Apprenticeships in the next 12 months (9 per cent).

Across England, employers with higher quality product market strategies² were found more likely to offer Apprenticeships (and to have apprentices on staff); employers with the lowest quality strategies were only half as likely to currently offer Apprenticeships as were those with 'very high quality' strategies (5 per cent compared to 10 per cent).

20 per cent of employers surveyed indicated that it was likely or very likely that they would have an apprentice at some point over the coming year. This proportion was strongly associated with the size of employer and amongst the largest establishments 46 per cent indicated that they would likely take on apprentice in the next 12 months.

3.3 Conclusion

The participation of learners in Apprenticeships has increased significantly in recent years. Growth has been particularly strong with respect to the number of starts of intermediate Apprenticeships (Level 2) and the number of older apprentices (particularly those aged 25 years and older). The latest figures on Apprenticeship starts also confirm that the target to provide 50,000 new adult (19+) Apprenticeships has been met in 2010/11. The number of achievements has been increasing too, with more than 200,000 apprentices successfully completing their programmes in 2010/11.

Whilst learner volumes are rising, employer engagement with Apprenticeships has been found to be more problematic. Recent surveys show that whilst awareness of Apprenticeships amongst employers is high (91 per cent of employers were aware of Government-funded Apprenticeships in 2009 (NESS09)), the share of employers engaged in the programme is still relatively low. In 2009, 8 per cent of employers were found to offer Apprenticeship (but only 4 per cent currently employed apprentices) (UKCES, 2010) and in 2010, 9 per cent of establishments either currently had apprentices or offered Apprenticeships (Shury *et al.*, 2011). Larger employers (250 or more staff) are found to be more likely to offer Apprenticeships than smaller ones and some differences across sectors are also evident with the likelihood of employer engagement being higher in construction and engineering and lower in business services and agriculture.

² Product market strategies are defined according to a 'composite quality' variable which is based on three product market strategy variables in NESS09 which indicate: 1) the extent to which goods or services are price dependent; 2) the extent to which they are premium quality; and 3) whether the establishment leads the way in the sector or not. High quality market strategies are indicated by a score of 11 to 15 on the composite quality indicator.

4. RECENT RESEARCH: INDIVIDUAL APPRENTICES

Key Findings

- The evidence suggests that Apprenticeship provides an attractive route for young people with the number of applications for many Apprenticeships outstripping the places available.
- The reasons for individuals deciding to participate in Apprenticeships are varied but the main factors include:
 - potential returns in terms of future earnings and employment prospects;
 - the opportunity to earn while learning;
 - as a means of entering a particular career path, sector or occupation.
- Despite the programme providing an attractive option through which individuals gain qualification, there remain disparities in participation by ethnicity and gender.
- Whilst the overall picture is evenly balanced between men and women, sector-related segregation is evident as women who tend to be under-represented in sectors such as engineering (3 to 6 per cent of apprentices are female) and construction (1 to 2 per cent) and over-represented in (lower paid) sectors such as health and social care (97 per cent).
- People from minority ethnic backgrounds account for a lower percentage of apprentices, with less than 7 per cent of all apprentices being non-white. Completion rates have also been found to be lower for non-white apprentices.
- Apprenticeships have fared well despite significant cuts in public spending but there is a need, following the CSR for the sharing of costs between the State, employers and apprentices themselves to be revisited. Given the significant returns to individuals arising from completion of an Apprenticeship, the shifting of at least some costs onto learners (25+) themselves is considered to be a fair approach to funding.
- The introduction of FE loans for apprentices aged over 24 years has been considered in a number of recent analyses. Despite practical difficulties encountered in assessing the impact of hypothetical loans on learner participation, the overall picture is that whilst participation will be adversely affected by the introduction of loans, with at least some individuals being put off by the prospect, it is likely that the majority of learners would be willing to take out loans to fund their Apprenticeship training.
- Evidence from higher education indicates that learners are relatively price inelastic when it comes to their education and it is argued that this is likely the case in further education as well.
- Upcoming and on-going research sponsored by BIS seeks to further consider the likely impact of loans on Apprenticeship participation – this research includes market research, using qualitative and quantitative methods, to consider the attitudes of potential learners regarding loans (to be published in May 2012); and the evaluation survey of apprentices (and employers) (to be published in May 2012).

4.1 Themes in the Literature on Apprenticeships

Hogarth *et al.* (2012a) summarised a number of issues that have been considered in research on Apprenticeships in recent years. These are summarised in Box 4.1. The search for publications for the present review resulted in a significant number of reports, papers and other texts considering various aspects of Apprenticeship over between 2010 and 2011. The issues outlined in Box 4.1 have been examined in a number of reports and additional areas of interest are also found in recent publications. Issues including progression beyond

Apprenticeships and particular aspects to do with participation, such as equality concerns and employer engagement, recurrently emerge in the research.

Box 4.1: Summary of issues considered in recent Apprenticeship research and policy

- Relatively low levels of participation in some sectors of the economy (though there have been improvements in this of late given the aim to widen participation)
- Demand outstripping supply for Apprenticeships in some sectors with there being more would-be apprentices than Apprenticeships available from employers (Fuller and Unwin 2003; HoL 2007; Steedman 2010)
- Relatively low levels of participation at Level 3 until recently which, historically, has been the level at which traditional Apprenticeships have been delivered
- Historically low, though improving, levels of completion (Hogarth *et al.* 2009)
- Relatively little evidence of progression beyond Apprenticeships to, for example, higher education
- Limited or passive employer engagement beyond their representation on Sector Skills Councils (Fuller and Unwin 2007; Ryan, Gospel, and Lewis 2006);
- A lack of social partnership in the design of frameworks (Brockmann, Clarke, and Winch 2010)

Source: Hogarth *et al.*, 2012a

This chapter presents a review of recent publications which focus on the position of individual apprentices and includes studies which examine: the attractiveness of Apprenticeships to individuals; equality issues in individual participation in Apprenticeships and barriers to participation; assistance for disadvantaged groups; approaches to improving participation in Apprenticeships; and, the impact of FE training loans on participation levels.

4.2 Attractiveness of Apprenticeships to Individuals

A number of recent studies have considered what attracts individuals to Apprenticeship training and the barriers to participation. As Wolf (2011) highlighted, the willingness of young people to engage in Apprenticeships is significant with around 15 applications being submitted for every Apprenticeship vacancy. In 2010, BT reported that it received 100 applications for each of its 221 Apprenticeship places, and Network Rail reported receiving 4,000 applications for just over 200 Apprenticeship places. Use of the Apprenticeship Vacancies System also indicates significant interest in the programme with more than 230,000 potential apprentices registered with the system as of January 2010 (Diamond *et al.*, 2010).

The features of Apprenticeships that attracted young people (and older individuals) to the programme found in recent studies include:

- the potential returns to Apprenticeships in terms of higher earnings and improved employment chances (discussed in detail in section 6.5);

- the opportunity to be paid while learning (discussed in section 6.4);
- the qualification attached to the programme; and
- the potential impact of Apprenticeship on career progression.

Where learners have undertaken Apprenticeship training, they have been found to report high levels of satisfaction with the programme overall and with particular aspects such as the quality of training and the usefulness of the qualification for career development (Tu *et al.*, 2011). The National Learner Satisfaction Survey (NLSS) revealed higher levels of satisfaction with the learning experience amongst apprentices with 92 per cent indicating they were satisfied. This was similar to that found for other learner groups as well as to the Apprenticeship results found in 2007. Overall satisfaction levels of apprentices have remained stable since 2001 but the proportion reporting that they were 'extremely satisfied' fell from 29 per cent in 2007 to 9 per cent in 2009.

4.3 Equality Issues in Apprenticeships and Barriers to Participation

Despite Apprenticeship being considered an attractive option for many young people, participation in the programme does not reflect the characteristics of young people in the population as a whole. Whilst the benefits of Apprenticeship to the individual are evident in recent research (see section 6.5), there remains noticeable disparity between groups in terms of their involvement in the programme.

With respect to overall participation in Apprenticeships, there is a fairly even split between men and women but this is not true across all Apprenticeship frameworks or even broad sectors. Few Apprenticeships in construction are held by women, for instance while women significantly outnumber men in Apprenticeships in social care and hairdressing. Individuals from black and minority ethnic groups (BAME) are also under-represented in Apprenticeship figures with particular disparity in a number of sectors, such as construction.

A number of recent studies have looked at particular disparities in participation in Apprenticeships. Fuller and Davey (2010) in a review of participation in Apprenticeship by equality groups commissioned by the Equality and Human Rights Council (EHRC) highlighted that the increase in the number of female apprentices has largely been due to expansion of the programme into sectors in which women dominate employment, such as health and social care and retail. They found that between 2003/04 and 2008/09, the share of Apprenticeship starts by women increased from 48 per cent to 50 per cent, but there was evidence of gender-related occupational segregation with some sectors being dominated by male or female Apprenticeship participation. Fuller and Davey found highly uneven patterns of participation in Apprenticeship by gender; in 2002/03, women were underrepresented in Apprenticeships in construction (women accounted for 1 to 2 per cent of all apprentices);

engineering (3 to 6 per cent) and plumbing (1 per cent) but were over-represented in other sectors such as early years / child care (97 per cent).

The participation of ethnic minority groups in Apprenticeship is also not reflective of the distribution of such groups in the general population. Fuller and Davey found that the share of apprentices who were non-white was higher in female-dominated sectors such as early years care, health and social care and business administration and the participation of individuals from BAME groups was much lower in male-dominated frameworks such as construction, plumbing and engineering. In 2003/04, non-white apprentices accounted for 4 per cent of Apprenticeship starts, but this had improved to 9 per cent in 2008/09. Fuller and Davey also considered participation of people with disabilities and found that the share of Apprenticeship starts accounted for by people with disabilities decreased from 10 per cent in 2003/04 to 10 per cent in 2008/09. It should be noted, however, that these figures can be affected by variations in the definition and recording of disabilities (especially learning difficulties) in the data.

Campbell *et al.* (2011) also considered gender-related occupational segregation in Apprenticeships in England suggesting that Apprenticeships offer a valuable opportunity to challenge gender-related occupational segregation and the negative impacts of this on the pay and status of women in the labour market. Campbell *et al.* reported that whilst female participation in Apprenticeships in England has increased, there is still persistent occupational segregation by sector and, largely as a result of this, a gender-related average pay gap. The EOC (2005) carried out a study of such segregation for a number of sectors: childcare, engineering, construction, plumbing and ICT and found that the degree of segregation in ICT and engineering had worsened between 2002/03 and 2008/09 whilst it had improved in construction and plumbing.

The impact of the recession on Apprenticeships was also considered by Campbell *et al.* and they found that between 2007/08 and 2009/10 total Apprenticeship starts increased by 22 per cent with higher growth in the number of starts by females (26.6 per cent) than for males (17 per cent). Apprenticeship starts decreased over this period in construction (decrease of 34 per cent) and engineering and manufacturing (14 per cent) but health, public services and care Apprenticeship starts increased substantially (38 per cent). In the initial period of the economic downturn then, male-dominated Apprenticeship sectors were hit hardest whilst female-dominated sectors fared well. Campbell *et al.* argued however, that subsequent budget cuts will adversely impact Apprenticeship activity in public and publicly financed sectors (which are female-dominated) in the coming years and that gender-related occupational segregation is likely to persist.

BIS (2011) carried out an Equality Impact Assessment of changes to the Apprenticeship programme set out in the Education and Skills Growth Review (November, 2011). The

implications of these changes for different equality groups varied and the findings of this assessment considered only the nature of impacts rather than the quantitative effects on Apprenticeship numbers. The assessment found that prioritising efforts from older to younger age groups could reduce the proportion of all apprentices who are women and who are from ethnic minority groups as both groups make up greater shares of older apprentices than younger ones. Prioritising younger Apprenticeship participation would likely have a positive impact on people with learning difficulties and / or disabilities as these are more prevalent amongst younger learners.

The impact of prioritising Apprenticeship activities towards high-value sectors was likely to have various impacts on different groups, depending on the particular sectors targeted. If construction were prioritised over retail for example, there would likely be an adverse impact on females. The BIS assessment noted that the net impact of focusing on particular sectors may be fairly neutral even if the impact on certain groups in particular sectors were significant when considered in isolation. The impact assessment concluded that prioritising Advanced Apprenticeship over intermediate Apprenticeships would likely have relatively minor impact on equality groups as there is relatively little difference between these two levels of Apprenticeship in their composition with respect to such groups. In the case of making incentive payments to small employers for becoming involved in the provision of Apprenticeships for young people, the assessment did not draw any certain conclusions due to lack of relevant information but BIS indicated that there was no reason to expect an adverse impact of this change for equality groups.

4.4 Assisting Disadvantaged Groups

A report on the 'Opening Doors' strand of the Apprenticeship Pathfinder Project (Anderson *et al.*, 2010) considered the scale of issues faced by young people who are disadvantaged and are disengaged from Apprenticeships. Drawing on a wide evidence base, Anderson *et al.* reported that, in addition to there being gender-related occupational segregation in Apprenticeships (in which women tend to enter particular sectors, which are often low-paid), women are less likely to get a contract of employment due to scarcity and competition for Apprenticeship places. They also reported that less than 7 per cent of all apprentices are non-white with particularly low representation of Indian (0.6 per cent of all apprentices), black Caribbean (0.6 per cent) and Chinese (0.1 per cent) compared to the labour market participation of these groups. Individuals from BAME groups were also particularly under-represented in traditional craft-based sectors and in some modern frameworks such as customer service and hospitality.

Evidence also suggests that completion rates are lower amongst non-white apprentices. Some of the reasons put forth in the literature for people from minority ethnic backgrounds accounting for very few apprentices in England include the influence of parental views and

the concentration of BAME in London where there are relatively few Apprenticeships on offer. Anderson *et al.* also found that young parents were faced particular constraints in taking up Apprenticeships due to the costs and availability of childcare.

Anderson *et al.* highlighted that in order for Government to reach targets for Apprenticeship participation and completion rates, apprentices will be increasingly drawn from amongst young people with A levels, those in jobs without training or those not in employment, education or training (NEET). As a result, young people on the margins are likely to lose out. Additionally, the entitlement to an Apprenticeship place for 'suitably qualified' young people, they suggest, puts some disadvantaged individuals at risk as they do not meet the specific entry requirements. Those who are furthest from the labour market can also face additional disadvantage due to employers' recruitment methods (*e.g.* word of mouth) thus the authors suggest that use of the Apprenticeship Vacancies System might help overcome by providing young people with more information on vacancies and employers.

4.5 Improving participation of individuals in Apprenticeships

Though overall participation of individuals in Apprenticeships is relatively high and is increasing, there are ways to improve, particularly in terms of equality issues such as those highlighted above. The first 'Opening Doors' report (Anderson *et al.*, 2010) concluded that in order to encourage disadvantaged and disengaged young people to undertake Apprenticeships, there is a need for programmes to provide flexibility in terms of varied start dates, working hours and activities and environments for working and learning. Programmes which are locally designed were also suggested to improve the participation rates of such young people.

Improving the attractiveness of Apprenticeship to potential learners is challenging and schools and information, advice and guidance (IAG) services have roles to play. The House of Lords (2007) drew attention to the failure of the careers guidance service to provide effective guidance to young people so that they are better placed to obtain an Apprenticeship, should they want one. In order to improve on this provisions regarding IAG have been included in the ASCL (2009).

Bassot and Chant (2010) discussed some of the new requirements of career education, information, advice and guidance (CEIAG) set out in the ASCL and the appropriateness of these measures. Whilst they agree with many of the guidelines they suggest that some are contradictory or add to the complexity of providing good advice and guidance to young people. They were not convinced, for instance, that it would be sensible to require CEIAG to encourage young people to consider learning and work options that are not traditionally associated with their gender, faith, ethnicity, abilities (learning and physical) and cultural and socioeconomic background even if the young person expresses no interest in looking at

these. They argue that ‘those involved in CEIAG need to maintain impartiality, keeping the focus on the autonomy of the individual, even when that means conforming to a stereotype.’ However, such a view does not align with aims to widen participation and reduce many of the inequalities observed in the studies discussed above (and many others). Whilst professionals offering CEIAG should not steer people into any particular direction, in the interests of promoting wider participation and equality in Apprenticeships, prospective learners need to have information available to them on all potential routes, not just the ones they are most familiar with.

Ofsted (2010b) found that almost all training providers observed in their good practice report considered improved IAG to have a positive impact on recruiting learners into the right area of learning which helped to reduce drop-out rates later. The availability of information on the opportunities and details of Apprenticeships is considered to be of great importance in facilitating good advice and guidance to young people. Lawton and Norris (2011), in their report for the Low Pay Commission, found that careers advisors felt that national minimum wage rules for apprentices would facilitate IAG activities by enabling advisers to provide clear information on likely wage levels to potential apprentices.

4.6 Impact of Loans on Participation Levels

Chapter 2 (Section 2.2) outlined the proposed plan to introduce FE training loans to those aged over 24 years working towards a Level 3 or higher qualification. From a public policy perspective the key issue is the extent to which the proposed changes will have net positive impact on the economy’s finances over the medium- to long-term, and that it does not have an adverse impact upon participation levels in FE and Skills. Given the focus of this paper the interest is in the second of these two issues: the impact on participation levels. There are no up to date data available at the time of writing which will definitively answer this question, but on the basis of a range of surveys which asked learners whether they would have been willing to pay anything at all, or pay more towards the course fees for courses they were either currently enrolled upon or had recently completed, BIS suggests that:

“In summary, this evidence suggests that only around one third of Level 3 learners said they would definitely not have gone ahead with their course if they had had to pay (more) fees. However, other evidence suggests that two thirds of FE learners would not take out a loan to fund their learning under any circumstances.” (p. 31, BIS, 2011b)

The impact assessment goes on to suggest that the estimates for the numbers of people who would not take out loans is too high based on responses to questions asked in a context of there being no system of loans in place. In other words individuals have come to anticipate the State meeting their course fees in the FE and Skills system. Their attitudes

may well change once a loans system becomes established. Econometric evidence of the impact of fees, grants, and loans in higher education, where the individual has been expected to contribute to full cost of course fees for a number of years reveals much less sensitivity to cost in relation to employment (Dearden *et al.*, 2010). The results reveal that:

- £1,000 increase in fees leads to a 4.4 per cent drop in participation;
- £1,000 increase in loans leads to a 3.2 per cent rise in participation;
- £1,000 increase in grants leads to a 2.1 per cent rise in participation.

Whether FE and HE are directly comparable is a moot point, but the evidence certainly suggests that participation will be sensitive to the price of courses. BIS-commissioned research is currently underway looking into Level 3 and 4 post-24 loans, including qualitative research (focus groups) and an online learner survey. This will be published in Summer 2012.

The BIS Impact Assessment of Further Education – Level 3+ Loans (BIS, 2011b) compared a number of funding/loans options for 24+ further education to the baseline in which grant funding is maintained at pre-Spending Review levels. The BIS estimates indicate that any reduction in funding would result in a reduction in the number of learners starting further education programmes however, loans would likely mitigate the drop in learner starts as learners would be willing to invest in their own education/training. According to BIS, the introduction of FE loans for individuals aged 24+ at Level 3 would achieve a balance between reducing government spending whilst providing support for as many learners as possible. Given the evidence on the wage returns to Level 3 qualifications, sharing of the costs should reflect at least some of benefits accrued to individuals.

Table 4.1: Summary of reduction in learner starts associated with reduced grant funding and FE loans

Funding Option	Reduction in learner starts in 2013/14	Reduction in learner starts from 2014/15 onwards (p.a.)
Baseline: grant funding at pre-SR levels	--	--
Option 1b: Continue grant funding for individuals aged 24+ at Level 3 and above, as under the current system, but at a reduced level	35,000	77,000
Option 2: stop grant funding	90,000	185,000
Option 3: Provide income contingent loans	19,000	34,000

Source: BIS, 2011b

BIS has recently commissioned market research (TNS-BMRB) to help understand learners' views about taking out a loan to fund learning. This research has consisted of a mix of qualitative and quantitative research to examine the attitudes of potential learners to taking

out a loan for their fees. The research has provided a broad range of views from a diverse cross section of potential learners may be in a position of taking out a loan in the future. Emerging findings indicate that the majority of learners will consider learning using a loan; that it is important to clearly set out the terms and conditions; and that the benefits of training to the individual is the most important factor in their participation decision (BIS, 2012).³

4.7 Conclusion

Apprenticeship appears to present an attractive option for individuals' skills development as evidenced by high numbers of applicants for 'good' Apprenticeship places (Wolf, 2011; the Guardian, 2010) and high levels of interest (Diamond *et al.*, 2010). Satisfaction with the programme is also relatively high amongst apprentices themselves (Tue *et al.*, 2011).

Participation in Apprenticeships by gender and BAME groups is uneven with evidence of gender-related occupational segregation (Fuller and Davey, 2010; Campbell *et al.*, 2011) and underrepresentation of BAME groups across the programme and especially within particular sectors, such as construction (Fuller and Davey, 2010). Participation of people with learning difficulties and disabilities in Apprenticeships are also relatively low.

A number of changes to Apprenticeship may potentially impact on particular groups of learners but the particular nature of changes will determine both the size and nature (positive or negative) effect on groups. The effects of targeting of efforts to increase participation at certain sectors will depend on the particular sectors concerned, with for example, prioritisation of construction over health and social care likely to have adverse effects for females as well as people from BAME groups while prioritising younger Apprenticeship participation would likely have a positive impact on people with learning difficulties and / or disabilities as these are more prevalent amongst younger learners (BIS, 2011a).

A number of research publications look at ways to encourage participation of disadvantaged groups and overall levels of participation in Apprenticeship. Improving the flexibility of programmes and increasing the use of publically designed programmes have been suggested as ways to increased participation amongst disadvantaged and disengaged groups (Anderson *et al.*, 2010). Improvements in the provision of IAG have also been highlighted as important factors in increasing levels of interest and participation in Apprenticeship overall as well as for particular groups for which current levels of engagement with the programme are low (House of Lords, 2007; Ofsted, 2010b).

³ Subsequent to the writing of this review, the results of this study were published by BIS in May 2012. See: TNS-BMRB (May 2012) "Attitudes to Further Education Loans," BIS Research Paper Number 73. London: BIS. 40 pages. Available from: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/a/12-795-attitudes-to-further-education-loans.pdf>

NAS recently provided support for 16 'Diversity in Apprenticeships' pilots which used new approaches to attract under-represented groups and to support them to successfully complete their Apprenticeships. These pilots are now complete and the evaluation report is expected to be published in the coming months.

This chapter has also considered the potential impact of training loans on participation in Apprenticeships with existing evidence suggesting that learners will be sensitive to the price of training but the level of impact is yet to be determined. Further BIS-commissioned research which considers the impact of increasing fees and the introduction of FE loans on participation in Apprenticeships has been carried out using the evaluation surveys of Apprenticeship learners and employers.⁴

⁴ Subsequent to the writing of this review, these reports were published by BIS in May 2012. See: Hogarth, T. *et al* (2012) *Employer Investment in Apprenticeships and Workplace Learning: The Fifth Net Benefits of Training to Employers Study*, BIS Research Paper Number 67. London: BIS. May 2012. 196 pages. Available from: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/e/12-814-employer-investment-in-apprenticeships-fifth-net-benefits-study.pdf>

Vivian, D. *et al* (2012) *Evaluation of Apprenticeships: Learners*, BIS Research Paper Number 76. London: BIS/NAS. May 2012. 168 pages. Available from: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/e/12-812-evaluation-of-apprenticeships-learners.pdf>

Winterbotham, M. *et al* (2012) *Evaluation of Apprenticeships: Employers*, BIS Research Paper Number 77. London: BIS/NAS. May 2012. 107 pages. Available from: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/e/12-813-evaluation-of-apprenticeships-employers.pdf>

5. RECENT RESEARCH: EMPLOYERS

Key Findings

Employer participation, motivation and barriers

- Employers are a key component of Apprenticeships as they provide the work experience that is a critical part of learning. Stimulating employer demand for Apprenticeship in England has been a longstanding policy aim as engagement falls short of the levels seen in other countries, such as Germany, with well-established systems.
- There are a number of benefits to be had by employers who take on apprentices, with most being recognised by employers themselves:
 - Apprenticeships offer a relatively effective means of meeting skills needs of the business which is typically more cost-effective than recruiting skilled workers from the external labour market.
 - Apprenticeships produce a pool of skilled people from which promotion into more senior roles can be made.
 - Labour turnover rates are often reduced as a result of providing Apprenticeship training as apprentices who train with a company are more likely to stay with it.
 - Apprenticeships allow for company values and particular ethos to be instilled in workers which employers consider to be important especially where apprentices stay with the company after training.
- Whilst employers see the benefits of training through Apprenticeship, there are still barriers or disincentives in place which limit engagement. In some cases, employers may not see the relevance of the programme for their specific business, or may not feel that their business requires the higher level skills it delivers. Cost barriers are not often cited as the main or only reason for not participating.
- Promoting employer involvement in Apprenticeship is an important goal of policy and a number of initiatives have been introduced or trialled in pursuit of increased employer engagement:
 - The Apprenticeships Vacancies System has been introduced in order to facilitate better matching between employers and potential apprentices. The first evaluation of the system indicated positive results with some increases in participation resulting but there are particular aspects (such as the distance of the employer from the system) which need improvement in order to make greater gains in terms of employer engagement.
 - The Apprentice Grant for Employers (AGE) for 16 to 17 year olds which provided a financial incentive for employers taking on new apprentices. The number of apprentices taken on increased during this programme but there was some displacement of Apprenticeships that would have otherwise been offered to older individuals. Amongst AGE apprentice employers, more than half (54 per cent) were new to the programme.
 - The Apprenticeship Training Agency (ATA) and Group Training Association (GTA) pilots provide alternative approaches to employer involvement which aim to mitigate the risks to employers of hiring apprentices and also to provide enhanced training experiences to apprentices. ATAs were found to be effective in engaging new employers in Apprenticeships and in a significant number of cases, apprentices went onto be employed by the companies in which they trained. The evaluation of the programmes indicated that whilst having positive impacts, the sustainability of freestanding ATAs/GTAs would pose a challenge.
 - A pilot of the Apprentice Grant for Employers of 16 to 24 year olds (AGE 16 to 24) is currently underway with the evaluation of the programme to be delivered in June 2013.

- Whilst financial incentives may result in increased employer engagement with the programme, the degree of improvement is limited as employers are fundamentally driven by the needs of their business when considering training and recruitment activity and thus will not take on apprentices without seeing the business case for doing so.

Training providers

- The role of training providers and their relationship with employers is often the subject of harsh criticism with authors considering training providers, particularly private ones, to be almost extraneous to the Apprenticeship system and thus presenting only increased costs. There is evidence however, that where there is a good relationship between providers and employers it is invaluable and training providers have been found to be an important factor in determining apprentice satisfaction. Whilst cases of poor practice indeed exist, on the whole training providers fulfil a valid and important role in delivering Apprenticeships.

Criticisms of employers and apprentices

- There have been criticisms directed at employers where it is considered that their Apprenticeship provision merely accredits the skills of existing employees rather than genuinely increasing the skills of the apprentice and / or where the Apprenticeship is relatively short in duration.
- Worryingly, the 2011 Apprentice Pay Survey found that 20 per cent of apprentices did not receive either on- or off-the-job training despite there being minimum requirements in place regarding guided learning hours. The survey found differences between sectors with regards to the incidence and duration of both types of training with more training exhibited in more technical/specific skilled sectors such as construction, engineering and health and social care.
- Whilst some of the doubt about the worth of Apprenticeships that train existing employees and accredit much of their existing skills, there are benefits of such approaches including reduced staff turnover, the attainment of a formal qualification where individuals might have otherwise missed their chance and motivation for staff. Training at a level which is the same as prior attainment also offers solid benefits, particularly where the training is required by a change of career or sector or where existing skills may have become outdated or redundant.

5.1 Employer Engagement in Apprenticeships

Employers are key actors in Apprenticeships. As Bynner (2011) summarises, “a training culture is fundamentally a culture of employers because they hold the key to the work experience that is a critical part of it, and to an assured place in the labour market that follows.” Employer engagement in Apprenticeships in England is low compared to a number of other European countries, though there are issues with engaging employers even in the most well-established systems such as Germany (Steedman, 2010).

Stimulating employer demand for Apprenticeships has been a long held aim of VET policy. Recent estimates of the share of employers engaged with Apprenticeships in England range from 4 per cent (Shury *et al.*, 2010) to 13 per cent. This is low relative to a number of other countries such as Australia where nearly one-third of all employers offer Apprenticeships and the dual system countries where around a quarter of employers are engaged with Apprenticeships. In England, less than one-third of employers with more than 500

employees take on apprentices in England compared to almost all such firms taking on apprentices in Germany. (Steedman, 2010)

McIntosh *et al.* (2011) explored the types of firms that engage in Apprenticeship training and considered the characteristics of those most likely to employ apprentices. The key aim was to identify key determinants of employer engagement with Apprenticeship that may be responsive to policy intervention. They also considered whether companies that take on apprentices had more rapid productivity growth. McIntosh *et al.* used linked data from the National Employer Skills Survey (NESS2009) and Annual Business Inquiry (ABI) which included information on both employer engagement with Apprenticeships and companies' gross value added.⁵ They considered not only whether or not a firm offered Apprenticeships (at all) but also whether they offered Apprenticeships mainly to existing employees or new recruits, the main age ranges in which apprentices typically fell, and the plans of firms regarding Apprenticeships in the next year (whether or not they planned to offer apprentices in the next year).

The results revealed that the probability of engagement in Apprenticeships (*i.e.* offering Apprenticeship places) was higher for larger establishments (more than 500 employees) than for smaller firms (fewer than 24 employees), but the number of apprentices *per* 1,000 employees was higher in smaller firms. This result was not found to be driven by cases where small establishments were part of larger organisations. The probability of engagement was found to be higher in private sector establishments and lowest in local and central government ones. Employers in construction were found to be most likely to offer Apprenticeships and employers in London were the least likely to employ apprentices.

Firms with higher gross value added (GVA) were not found to differ from other firms in terms of their likelihood of employing apprentices. The effect of Apprenticeships on productivity and overall business performance is difficult to ascertain and in the absence of suitable data, it is not possible accurately establish any causal relationship. Firms with skills shortages were more likely to take on apprentices as were those experiencing internal skills gaps amongst skilled trade or personal service workers.

McIntosh *et al.* did not find any statistically significant relationship between offering Apprenticeships and higher productivity (a year later). The limitations of the data used in this analysis means that it is unclear whether there is indeed no relationship between these two variables or whether with a longer period of observation a significant relationship would be found. Other work on the returns to Apprenticeship (*e.g.* The Net Benefits to Employers

⁵ The probability of offering Apprenticeships was estimated using a various specifications of bivariate and multivariate probit models in which they controlled for various firm characteristics including size, region and sector.

series of studies, Hogarth *et al.*, 2012) would suggest that the latter is likely to be the case and that Apprenticeships may improve productivity over the longer term.

5.2 Reasons for Employer Engagement

Hasluck (2012) considered the benefits to employers of hiring young people (16 to 24 years), and in particular, apprentices. Such benefits include:

- bringing energy to the business;
- flexibility;
- cost-effectiveness;
- returns on a longer-term investment.

Apprentices (and other trainees) are considered to be cost-effective and it has been found that over the long term, it is less costly to recruit apprentices than to recruit adult skilled workers as individuals who train with a company are more likely to be retained over a longer period (Gambin, Hasluck and Hogarth, 2010). Apprentice employers also indicate that it is easier to instil good working practices and the organisation's culture/values into apprentices than to experienced workers. Other positive aspects of employing apprentices, from the point of view of employers, are: having training that is specific to the needs of the business as well as the apprentice; it contributes to the pool of skilled people available to the company; can help to offset skill shortages; provides a future workforce; enables succession planning; and helps shape the managers of the future (Gambin *et al.*, 2010).

City and Guilds commissioned research into the attitudes of employers across 31 industry areas about the relevance of Apprenticeships for their business, for the economy and for the country's competitiveness (C&G, 2011). Online interviews with 250 apprentice employers and 250 employers without apprentices were carried out in January 2011. A high proportion of all employers felt that apprentices would be a key to the future success of their business over the next two years. Of those employing apprentices, 52 per cent thought they offered better value than employing graduates and 71 per cent indicated that apprentices made up a fundamental element in their recruitment and training and development activities. The employers with apprentices cited a number of benefits associated with employing apprentices, including: the range of skills and expertise apprentices acquired during their training; the ability of apprentices to integrate into the employer's; and, that Apprenticeship training instilled a lifelong attitude to continuing training and development.

Elston and James (2011) found that the reasons employers took on apprentices (or did not) agreed those discovered in other studies. Some of the reasons for employing apprentices found by Elston and James included that apprentices:

- offer value for money;
- allow the company to train the workforce of the future;

- enable the company to train people in the company's culture; and,
- help in dealing with an ageing workforce.

The study also found that receipt of funding was also a reason employers had taken on apprentices.

5.3 Barriers to Employer Engagement

The UK Employer Perspectives Survey 2010 indicated that the two most common barriers to engagement with Apprenticeships were that Apprenticeships were not relevant or suited to the business (reported by 33 per cent of those who did not offer, currently have or plan to use apprentices) and that the company did not have plans to recruit or did not need to train apprentices as all staff were already trained (21 per cent) (Shury *et al.*, 2011).

Shury *et al.* (*Ibid.*) also found that only 12 per cent of establishments reported that they were too small to offer Apprenticeships and around 7 per cent cited budget and funding issues as a barrier to engagement which was more common in the case of smaller establishments.

Elston and James also examined employers' reasons for not engaging with Apprenticeships which included that:

- apprentices were not relevant to or required by the business;
- the company preferred to hire fully trained workers;
- the company does not need higher level skills that are provided through Apprenticeships;
- the company had no current vacancies or were not hiring;
- there were prohibitive costs and administration requirements associated with engagement.

Though the C&G study (*Ibid.*) found that a high proportion of employers recognised the value and importance of apprentices for their business, the study also found that many employers still faced significant barriers or disincentives to hiring apprentices. These barriers included: the process of taking on apprentices being overly bureaucratic; managing and organising Apprenticeships being time-consuming; risks associated with committing to Apprenticeship in the current economic climate (*e.g.* the ability to offer employment after completion); and, Apprenticeships not being relevant to their business. There were also concerns that apprentices would leave the business after training and a number of apprentice employers found that inadequate quality of candidates was sometimes a difficulty they encountered in engaging with the programme.

Keep and James (2011) considered employer demand for Apprenticeships and argued that some of the factors which have contributed to low levels of employer engagement with and demand for Apprenticeships include the following.

- the importance of skills, or the low importance, shown by employers – many do not rely on up-skilling their workforce to ensure their competitive advantage. Also, there is relatively low demand for craft, intermediate and technician level skills which has arisen in part because of the vast expansion in higher education. However, with an ageing workforce, demand in this area is likely to increase.
- An over-supply of graduates has resulted in employers taking on level 4 (and above) graduates to fill jobs requiring skills at Level 3, which may be considered as indicative of Apprenticeship training by employers being substituted by the training received through the education system.
- Single EU market and migrant labour – well-trained and well-educated migrant workers can be employed so that employers avoid the costs of providing this education/training themselves.
- Lack of licence to practice – there are additional routes into occupations which do not require completion of Apprenticeship for most sectors in the economy.

5.4 Promoting Employer Engagement

Many of the barriers to engagement reported by employers reflect lack of demand for skills which is driven largely by companies' product market strategies, thus encouraging employers to pursue those higher product market strategies would likely stimulate demand for intermediate level skills which Apprenticeships produce.

Increasing the attractiveness of Apprenticeships for employers is necessary in order to improve the share of employers who take on apprentices. As the C&G study, though based on a relatively small number of employers (with no indication of representativeness), suggested, employers face a number of barriers or disincentives to hiring apprentices, many of which are to do with the bureaucracy and management of Apprenticeships rather than with the training itself.

The Apprenticeship Vacancies System which was established in April 2009 'to provide one central clearing house and matching service for Apprenticeships' (Diamond *et al.*, 2010). Ideally, the system aimed increase engagement by both employers and learners by facilitating matching between employers and apprentices in a cost-effective manner. The evaluation of the Apprenticeship Vacancies System (AVS) (Diamond *et al.*, 2010) found that while the system had much success in its first year in engaging learners, a less substantial effect was found for employers and training providers. The evaluation drew together findings from primary research with stakeholders (including an online survey of 187 employers and an online survey of more than 1,300 learners), desk-based research (examining Management Information on usage of the system) and depth interviews and discussion groups with employers, providers and learners. Whilst the system was designed to help streamline the recruitment process for employers, the evaluation found that the design led

instead to employers being more peripheral to the process as training providers were largely responsible for updating vacancies (which was not done regularly) and the core relationship supported by the system was that between provider and learner.

Awareness of the system was found to be low amongst employers and they were also found to have a neutral opinion of its usefulness. The online survey of employers indicated that over half were aware of the AVS but the evaluation notes that this is likely to be lower given that the sample of employers was not representative (however, there is a possibility that participation could also be underestimated as a result of using a small sample). Around 40 per cent of employers who had used the AVS (directly entering information), indicated that they had encountered a problem with the system including problems registering their interest and placing adverts. Some employers indicated that many of the processes involved in using the system (particularly in the beginning) were time-consuming though one of the key advantages of the system identified by employers was cost-effectiveness. Overall, employers indicated that the existence of the AVS was not a key factor in determining their involvement with Apprenticeships and for those who do recruit apprentices, the system is not the only means by which they do this.

The evaluation of the AVS, despite indicating less success in engaging employers compared to learners, highlighted that there is potential for the system to achieve significant gains especially as employers are keen to have some sort of 'one stop shop'. Much of the low impact on employers found in the evaluation could be contributed to 'teething problems' and with further work, the system has the potential to provide significant added value. The evaluation set out number of recommendations to help produce the benefits for employers in relation to the vacancies system. These include: giving employers a much more direct role in using the AVS and involving a wider range of partners such as Connexion and Jobcentre Plus employer engagement staff.

The Learning and Skills Improvement Services (LSIS) investigated the end-to-end business processes imposed on large employers who engage in public-funded training, particularly those employers who were also their own learning and skills providers (LSIS, 2011). The research considered the views and experiences of employers and key stakeholders regarding how processes could be reduced in number, simplified or improved and how to reduce bureaucracy (cited in C&G (*Ibid.*) as a barrier to engagement, regardless of employer size). Some of the more onerous processes and sources of difficulty for employer-providers included complexity of the funding system which is misaligned with business planning given annual funding systems; burdensome contract monitoring systems; numerous, and sometimes duplicated, requests for data. Many of these large employers also felt that the current systems did not address their specific characteristics and circumstances as training and learning providers with the language used being more relevant to colleges or training

providers and Ofsted inspections not fully recognising the difference between the employer environment and that of colleges and other learning providers. The report recognised that a number of changes to the processes involved for these large employers have already been put into place (e.g. increase use and acceptability of electronic signatures) and LSIS made a number of recommendations in order to further this including movement to a system of payment by results for successful direct contract employers and introduction of a single data portal to eliminate duplicated data requests.

Alternative approaches to employer involvement in Apprenticeships have also been considered in recent studies. The Apprenticeship Training Agency (ATA) and Group Training Association (GTA) Pilots, for instance, were set up to consider innovative approaches to employer engagement in Apprenticeships and focused on areas of the economy where take-up was historically low. The aim was to increase apprentice numbers, especially those aged 16 to 18 years and working in SMEs. The pilots were expected to provide additional Apprenticeships (rather than displace existing places) and to engage new and hard-to-reach employers. Under the ATA set-up, apprentices were recruited and employed by the ATA but worked in host organisations where there were job opportunities to enable apprentices to achieve work-related elements of their programme.

The evaluation of these pilots (13 ATA and 3 GTA) was qualitative in nature and consisted of consultations with those responsible for delivery as well as with host employers, apprentices and training providers (Turner, 2011). The ATA/GTAs were observed to have used a variety of means to attract potential apprentices, including the Apprenticeships Vacancies System, Connexions and other organisations. The volumes delivered by the pilots varied with between 51 and 1,300 though the evaluation found that in most cases the volumes fell below those planned at the outset. Pilots were found to be most successful where the ATA/GTA was clearly focussed and targeted with effective mechanisms in place to sell the benefit of the approach to employers (York Consulting, 2011).

The evaluation found that the employers who became involved in Apprenticeships through the ATA/GTA pilots were mostly new to Apprenticeships and they indicated that the support from the pilots gave them confidence to become involved. Employers found the recruitment and matching service on offer to be attractive and were also attracted to the potential to avoid the risks of employment in the short-term as apprentices were employed by the ATA. It was found that most employers used the pilots to recruit apprentices to real jobs with the majority of apprentices moving from being employed by the ATA to direct employment with the host organisation.

The evaluation indicated that in order for the ATA/GTAs to be sustainable in the longer term, their activities needed to be closely integrated with other activities and in particular, there was a need to consider how the ATA approach could be linked into NAS approaches to

working with smaller businesses. It was also recognised that the barriers to employer engagement in Apprenticeships are complex and there may be worth in combining other services (e.g. those of training providers) with ATA/GTA. Whilst most pilots were considered to be sustainable over a longer period the evaluation found that performance was highly sensitive to volumes and also depended on where the ATA/GTA sat in relation to wider services of providers and other organisations. The evaluation concluded that freestanding ATAs/GTAs would be challenging to sustain.

Another initiative aimed at increasing levels of employer participation in Apprenticeships (and thereby increasing the number of places on offer) is the Apprentice Grant for Employers (AGE) programme. The AGE was established to stimulate provision of Apprenticeships for unemployed 16 and 17 year olds with a focus on engaging small and medium size employers who were new to Apprenticeships or who would increase their take up of Apprenticeships through the grant. The programme involved a £2,500 grant (per apprentice) being paid to an employer with £1,500 paid at the start of the Apprenticeship and the remainder paid 12 weeks into the Apprenticeship. This one-off programme sought to establish 5,000 new Apprenticeships over a two to three month period with the cut-off date for applications being 31 March 2010 (Wiseman *et al.*, 2011).

In evaluating the AGE programme, interviews were carried out with 504 employers who had taken on AGE apprentices, 303 AGE apprentices (as well as focus groups and discussions with some of these), and 30 providers providing the off-the-job training elements of AGE Apprenticeships. Employers indicated that both wanting to help young people and business-related reasons prompted them to take on AGE apprentices but business-related motivation was most influential. The evaluation also found that training providers found it easier to recruit employers within the AGE programme than for standard (non-grant) Apprenticeships. As found in other studies (e.g. Hogarth *et al.*, 2012b), employers rarely take on apprentices where there is not a sufficient business case for doing so, whether this business demand is formally assessed or based on the intuition of employers.

Whilst employers who received AGE payments were required to declare that they were either taking on an AGE apprentice as their first apprentice, or that the AGE apprentice was additional to their usual provision, the evaluation found some evidence of deadweight and displacement associated with the programme. Deadweight (that is, Apprenticeships would have been provided by the employer in the absence of the grant) was estimated to be between 16 and 21 per cent, and around 38 per cent of employers indicated that they would have taken on older apprentices without AGE (accounting for at least some displacement, however, if returns are greater for younger apprentices then shifting from older to younger would increase overall economic returns). The real levels of deadweight and displacement were likely to be lower as 54 per cent of AGE apprentice employers were new to

Apprenticeships. When asked how they would have behaved if the amount of the grant had been £1,250 (half of the actual amount), 21 per cent of employers indicated that they definitely would not have taken on AGE apprentices and 7 per cent said they would have taken on fewer with this lower level of subsidy.

It was recommended that if a programme such as AGE were to be rolled out the amount of the grant could be slightly lower (e.g. £2,000 rather than £2,500). This level, it was concluded, would still promote engagement of employers but would also allow for funding of additional Apprenticeships within a fixed budget. They also suggested that the staging of payments could be modified (with later final payments or additional interim payments) to encourage higher retention and completion rates.

Whilst the AGE programme was found to have increased employer engagement with Apprenticeships, it did not focus on the smallest employers who arguably face the greatest barriers to participation and Wiseman *et al.* recommended that in future there could be increased targeting of such employers. The evaluation also provided little indication that the AGE programme was effective in helping less able and less motivated people to find apprentice places.

BIS is in the process of commissioning the evaluation of the Apprenticeship Grant for Employers of 16 to 24 year olds. This evaluation will similarly assess the impact of the grant on employer engagement with Apprenticeships, particularly small employers (with less than 250 employees). The AGE 16-24 will provide a payment of £1,500 (per apprentice) to up to 40,000 employers who create new jobs and take on apprentices aged 16 to 24 years. This payment is in addition to the costs of training which are already publically funded. The motivation for this programme has been that barriers to engagement are more significant for small employers than for larger ones, thus the wage incentive offers support and encouragement to employers in taking on their first Apprentice. The first report on the evaluation of the AGE 16-24 programme is due to be complete in September 2012 and the final report in June 2013.

Programmes offering different approaches to increasing employer engagement such as the ATA/GTA pilots and the AGE programme have been found to have positive effects on employer participation Apprenticeships, however the evaluations of these, and other programmes, recognise that there are limitations to how far they can go in increasing employer engagement. There are a number of other factors, besides monetary concerns and risks associated with employing apprentices, which influence the employer's decision to engage and where there is engagement, at what level. Abdel-Wahab *et al.* (2010), in considering the arguments for and against the construction Levy-Grant Scheme, emphasised that focusing on monetary incentives is a partial solution to improving employer engagement with Apprenticeships and other training activities and that the needs of the

business and the employer's attitudes towards the value of training and Apprenticeships also need to be considered.

Whilst it is a goal of policy to improve the level of employer engagement with Apprenticeships, it is necessary to consider the deadweight associated with public funding of the programme. A number of recent research projects have been commissioned by BIS to consider deadweight and additionality. The project *Assessing Deadweight in Further Education and Skills* has been commissioned with the aim of improving the evidence base on the extent of additionality / deadweight in Further Education (FE) and Skills, with a focus on work-based learning routes such as Apprenticeships. Such evidence will enhance the Department's assessment of the value for money of government investment in different programmes.

5.5 The Employer and the Training Provider

Along with apprentices, employers and Government, the other principal actors in Apprenticeships in England are training providers.

Wolf (2011) considered training providers to add to the administrative requirements, performing 'brokerage or middleman activities', and thereby increasing the costs and bureaucracy of Apprenticeships; a feature which is largely absent in other countries. The Wolf Report also suggested that the recent resistance of training providers to moving to functional skills was driven by payment arrangements (whereby providers are paid partly on results and key skills are required for completion) and because "many [providers] have not been teaching, or needed to teach, English and maths; nor are they equipped to." (p. 85, Wolf).

Where employers were able to act as their own training providers, they considered this approach to work well and were satisfied their Apprenticeship arrangements and where employers had switched to this situation from working with external providers, they felt that their own provision worked better (Wolf, 2011). It is important to recognise however, that only the largest employers (with 5000 or more staff) actually have the option of being their own 'training provider' for Apprenticeships (though this has changed recently so that smaller employers can have grant contracts, subject to some conditions. For most employers then (as smaller employers account for a relatively high share of Apprenticeship places), the training provider is an essential part of their Apprenticeship provision. Ryan and Lewis (2009) also point out that the administrative burdens associated with firms providing their own training are considerable.

Two of the recommendations of the Wolf Report were directed at changing (or even eliminating) the role of the training provider:

“Recommendation 15: DfE and BIS should review contracting arrangements for Apprenticeships, drawing on best practice internationally, with a view to increasing efficiency, controlling unit costs and driving out any frictional expenditure associated with brokerage or middleman activities that do not add value.

Recommendation 16: DfE and BIS should discuss and consult urgently on alternative ways for groups of smaller employers to become direct providers of training and so receive ‘training provider’ payments, possibly through the encouragement of Group Training Associations (GTAs).” (Wolf, 2011, p.124)

With respect to recommendation 16, the evaluation of the ATA/GTA Pilots found that the views of learning providers varied with some seeing ATA/GTAs as threats to their own activities and others viewing these organisations as presenting opportunities to work with employers that the providers were not previously able to reach (Turner, 2011).

Despite the views expressed by Wolf, the importance of the training provider in supporting apprentices has been apparent in other studies. The analysis of Apprenticeship completion carried out by the Warwick Institute for Employment Research (Hogarth *et al.*, 2009; Gambin *et al.*, 2010), for instance, indicated that employers viewed a good relationship and clear communication with training providers to be a vital ingredient in ensuring that firstly, apprentices were well-suited to the programmes they were undertaking, and secondly, that apprentices had the best chances of successfully completing their programme. In some cases, employers reported that such relationships were not present or had broken down which, in certain instances, resulted in poor performance of an apprentice and / or the employer changing to another training provider (Hogarth *et al.*, 2009).

Responses to the National Learner Satisfaction Survey (NLSS) in 2009 indicated that the performance of training providers is important in determining satisfaction of apprentices. Apprentices tended to report higher satisfaction where they enjoyed the course, they rated their tutors highly and that they were able to get help when it was needed (Tu *et al.*, 2011).

The role of the training provider is a key element in the current Apprenticeship system and in order to improve participation, employer engagement, and satisfaction with the programme, there is a need to ensure consistency and good practice across providers. Ofsted (2010b) showcased the characteristics of ‘twelve outstanding providers’ of work-based learning (WBL). The characteristics of outstanding providers were summarised as follows:

- establishment of shared purpose and ambitious goals;
- knowledge of the market and alignment of provision to the needs of employers;
- matching of learners to the right programmes;
- having high expectations in setting direction and monitoring learner progress;
- delivery of a coherent programme of learning that was rooted in current working practice;

- use of smart assessment approaches to capture achievement and accelerate progress; and,
- ensuring that barriers to the progress of learners are minimised.

Ofsted (2010a) also produced a good practice report based on 39 providers of WBL which had been successful in providing Apprenticeships in three (currently) underperforming vocational areas (retail, motor vehicles and hospitality) as well as in two vocational areas which had improved in recent years but had historically been underperforming (care and construction).

Ofsted found that almost all 39 providers which were inspected considered improved IAG to have had a positive impact on recruiting learners into the right area of learning which helped to reduce drop-out rates later. Early initial assessment was also found to have a positive impact on the take-up of learning support which was a key factor in improving success rates. Almost all providers in the survey provided good key skills training in which key skills were contextualised to the areas of learning and were introduced early in the programme. Where the providers' staff had strong vocational backgrounds and where there was one main assessor throughout the Apprenticeship, these were key factors in engaging both employers and apprentices.

Good provision was also characterised by providers' staff having regular contact with employers and the provision of flexible training and assessment which met the needs of employers and apprentices whilst also increasing the amount of evidence derived from the workplace. The providers who were surveyed by Ofsted also made effective use of management information in planning and monitoring the work of assessors which contributed to improving timely success. Ofsted has produced a more recent good practice report which considers the common factors that have resulted in high performance by 15 providers who are extensively involved in delivering Apprenticeships to learners under 19 years of age (Ofsted, 2012).

5.6 Criticisms of the Employers' Role in Apprenticeships

There have been a number of criticisms about Apprenticeships which have been aired publicly, including some put forth in recent research reviewed here. These criticisms are often based on cases where training appears not to impart new or enhanced skills on apprentices (often considered to be an issue where existing employees are put through Apprenticeship programmes and / or where the duration of training is relatively short) (James, 2010; Keep and James, 2011); or where there is relatively little formal off-the-job training and / or where the training focuses on narrow sets of tasks in the workplace, the quality of Apprenticeship training is questioned (e.g. Grindrod *et al.*). This section looks at some of these issues considered in recent research.

Low training levels

Evidence from the Apprentice Pay Survey indicates that under some Frameworks the volume of training being undertaken is quite modest. Around 20 per cent of apprentices indicated that they had received neither on- nor off-the-job training – which is worrying given contracted requirements for minimum guided learning hours (Higton *et al.*, 2012). Training appears to be more integral to some frameworks than others. Apprentices in retail, customer service and hospitality and catering, for example, were more likely to report that they had not received training (either on- or off-the-job). Off-the-job training was most common in frameworks, such as children’s care, learning and development, engineering, construction and hairdressing, which require more technical or specific skills. Where received, apprentices in Great Britain spent, on average, 6.5 hours per week in off-the-job training, and 12.6 hours per week in on-the job training, on average. Hours in both types of training were higher for technical/theoretical frameworks such as construction, engineering and electrotechnical.

Acquisition of New Skills

There are concerns that through Apprenticeships, public funds are being invested in training/ education that does not in reality upskill learners. IFF Research (2011) examined the prior qualifications of adult apprentices in 2009/10 in order to consider the extent to which investment in Apprenticeship is directed at upskilling individuals with lower skills levels as opposed to supplying skills at or below the level already attained by learners. They surveyed 3,000 adult (19+) apprentices and found that up to 75 per cent of those enrolled in Level 2 Apprenticeships already had a full Level 2 qualification or above when they started their Apprenticeship. Almost half (49 per cent) of adult advanced apprentices were found to be taking their first full Level 3 qualification. The study also found that the ILR may underestimate prior attainment of adult apprentices due to the required entry for this field being the level of qualification held by an individual when they first register with a training provider rather than their level of prior attainment at the start of any particular programme of learning or learning aim.

It should be noted however, that achieving an additional qualification at the same level of prior attainment does not necessarily mean that an apprentice has not gained skills through the programme. Training in a different sector or for a different role may add to a person’s skill set and increase competency overall. Training at the same level as prior attainment might be necessary for instance, where a person makes a career change or wants to enter a different sector. For example, a young person might have undertaken a Level 3 qualification in business administration but then upon reflection might want to work in health and social care which would require further training at Level 3 in order to meet the industry’s standards.

Grindrod and Murray (2011) considered aspects of the quality of Apprenticeships stating that ideally, Apprenticeships should present 'high-quality, holistic career development opportunities' and should not simply provide a means of subsidising employer to deliver occupation-specific training. They highlighted that there are a number of aspects of Apprenticeships that indicate quality including, not just completion, but also duration, the amount of time spent training and opportunities for progression to further training or employment. Progression, they argued, is a fundamental aspect of quality, particularly from the union's view on learning at work.

It has also been argued that Government targets for Apprenticeships have also resulted in some (undesirable) outcomes which Keep and James (2011) termed as re-labelling and branding. Re-labelling refers to the re-labelling of Government-funded training as 'Apprenticeship' and branding is where expansion in Apprenticeships has come about due to training providers fitting existing employer-provided training under the brand 'Apprenticeship'. The result, according to Keep and James, has been that much of what constitutes Apprenticeship in England currently would not fit the definition of Apprenticeship in other countries. However, as set out in earlier in this report (see Section 2.2), in the current system in England (and more broadly, in the UK), Apprenticeship is potentially applicable at any level.

The re-labelling concept can potentially have implications for the quality of Apprenticeships and also for the signals this sends to employers, prospective apprentices (and their families) and the taxpayers (Keep and James, 2011).

These criticisms (and others), can prove useful in highlighting particular outcomes or features of Apprenticeships which might need improvement or further consideration, but they are not always supported by strong evidence and sometimes are based on cases of single employers. Many of the negative views of the Apprenticeship system in England (and the UK) are often applicable only to certain sectors or Frameworks but there is a need, as highlighted here and elsewhere (e.g. Gambin *et al.*, 2011) to consider the different sectoral contexts and features of various Apprenticeship frameworks in determining what works well and what needs improvement.

5.7 Conclusion

This chapter has considered recently published research relating to employers and their engagement with Apprenticeships. The employer plays a vital role in Apprenticeships and enhancing their engagement with the programme is of increasing concern. Levels of employer engagement in Apprenticeships in England is low compared to the levels observed in other systems such as Germany (Steedman, 2010) and stimulating employer demand for Apprenticeships have been a longstanding priority of VET policy.

Larger firms have been found to most commonly engage with Apprenticeships (UKCES, 2010; McIntosh, 2011; Shury *et al.*, 2011) but it has also been found that the number of apprentices per 1,000 staff is higher in smaller firms. Variation in engagement is also observed between sectors with employers 'traditional' apprentice sectors (e.g. construction and engineering) exhibiting higher levels of engagement than those in relative newcomers to the provision of Apprenticeships (e.g. financial services).

Though employer engagement is relatively low, the research indicates that there are a number of benefits to employers stemming from employing apprentices - many of which are reported by employers themselves. Employers are found to be attracted to the concept of Apprenticeship training (*i.e.* combining productive work with training) as well as the potential Apprenticeship presents for: instilling the organisation's values and culture in apprentices; developing the skills of their future workforce; and fulfilling specific skill needs of the business (Gambin *et al.*, 2010; C&G, 2011; Elston and James, 2011).

Recent research has also explored the barriers to engagement which are often reported by employers. Lack of demand is the main factor which discourages employers from taking on apprentices. Employers often report that they do not require the level of skills provided through Apprenticeships (Elston and James, 2011). It has been found that companies with higher quality product market strategies are more likely to offer Apprenticeship training. Stimulating product market strategies which require intermediate level skills would help to increase employers' take up of Apprenticeships.

Some studies have also found that the costs of providing Apprenticeships discourage employers from doing so. The costs considered by employers include administrative burdens and time away from the workplace for apprentices and supervisory duties of more senior members of staff (e.g. C&G, 2011) but cost factors have been found to be a reasons for not participating more common amongst smaller employers than larger ones (Shury *et al.*, 2011).

Initiatives aiming to overcome the barriers faced by employers in engaging with the Apprenticeship programme have been considered in a number of recent studies. These include the evaluations of the Apprenticeship Vacancies System (Diamond *et al.*, 2010), the ATA/GTA Pilots (Turner, 2011) and the AGE programme for employers (Wiseman *et al.*, 2011). The results of these evaluations have shown some positive outcomes. In the case of the Apprenticeship Vacancies System whilst at the time of the evaluation the effects on employers were found to be relatively minor (whilst the system was found to have promoted much higher learner engagement), there is potential for this system to have much greater benefits for employers and the evaluation sets out a number of recommendations on how these benefits can be realised. The alternative approaches to employer engagement represented by the ATA/GTA pilots have been found to be well-received and have

encouraged higher levels of participation by employers. Similarly, the AGE programme was found to have had significant positive effects on encouraging employers to engage with Apprenticeships for the first time. It has been recognised that in promoting employer engagement with Apprenticeships, there is a need to consider more than just financial incentives (Abdel-Wahab *et al.*, 2010).

The relationship between employers and training providers has also been considered. Whilst some have suggested that the training provider adds little value to Apprenticeship training (e.g. Wolf, 2011), other studies have found that there are many cases where training providers are considered to be important in successful provision of Apprenticeships (Hogarth *et al.*, 2009; Tu *et al.*, 2011) and that there is evidence of good practice amongst providers (Ofsted, 2010b).

Finally, this chapter has considered studies which have made particular criticisms of Apprenticeships in England, particularly in how they compare to such training in other countries. Questions over the level of new learning and skill acquisition found in some Apprenticeships as well as concerns regarding the quality of Apprenticeship training have been raised recently (Keep and James, 2011; James, 2010; Grindrod and Murray, 2010). However, while Apprenticeships have historically been regarded as a form of IVET, there is increasing recognition that there is a role for the programme in terms of supplying CVET through which people may update their skills over their working lives.

Considering the criticism of Apprenticeships is important in ensuring that where there are problems with the programme they can be addressed but it should be noted that some of the particular aspects brought out in such studies should not be uniformly applied to the all Apprenticeships and many are based on few case studies or small sample numbers. There is much evidence of the programme working well and bringing benefits to individuals, employers and the economy as a whole, as will be shown in the next chapter.

6. Recruitment, Progression and Returns

Key Findings

Completion

- Analysis of Apprenticeship completion have found a number of the personal characteristics of apprentices (e.g. gender and ethnicity) to affect the likelihood of completion or non-completion. Completion rates have also been found to differ across frameworks.
- Learner satisfaction has been found to be positively associated with completion and with retention after the Apprenticeship.

Progression

- A number of studies have considered progression from Apprenticeship onto Advanced Apprenticeship; into higher level studies in FE or HE; and progression into and within employment.
- The incidence of apprentices progressing onto higher education is found to be relatively low (estimates range from around 4 per cent to 8 per cent) whilst some studies indicate that there is a much greater appetite amongst apprentices to progress in this manner. The Apprentice Pay Survey however, found that less than 2 per cent of apprentices planned to go onto higher education after completion of their Apprenticeship.
- A number of studies highlight poor information and signposting of higher education opportunities for apprentices as a major factor contributing to low levels of such progression. The translation of Apprenticeships to the entry requirements for higher education has proved a barrier for some though there are differences between sectors regarding the incidence of progression to higher education (e.g. more engineering apprentices undertake higher education studies than former construction apprentices).
- There are benefits expected to accrue to apprentices and their employers as a result of progression including fulfilment of higher level skills needs and improving social mobility by providing a vocational pathway onto higher studies. Most employers however, appear to consider higher education qualifications not to be essential for progression within their organisation thus there is limited support from employers.

Apprentice pay and terms and conditions of employment

- The latest Apprentice Pay Survey found average weekly pay for apprentices to be £209 in England and £212 in Great Britain. Variations were found by sector with particularly low pay in hairdressing. The results also suggest that the wage regulations for apprentices are not always being appropriately applied by employers who may not understand or are not aware of differences in pay requirements by age, level and stage of Apprenticeship.
- Apprenticeship pay has been found to be higher in Britain (as a proportion of skilled worker wages) than in European counterparts Germany and Switzerland.
- Low Apprenticeship wages do not necessarily indicate low quality training as it is expected that apprentice pay should be lower than that of experienced/skilled worker as the apprentice's productivity is lower during training. The apprentice is willing to forego current earnings in order to invest in their skills which are expected to lead to higher future income and better prospects for obtaining and staying in employment over the longer term.
- Studies indicate that on average, apprentices are contracted to work more than 30 hours per week. The latest pay survey estimates average training times to be 6.5 hours per week for off-the-job training and 12.6 hours per week for on-the-job training.

Returns to Apprentices

- The returns, particularly wage premia, associated with Apprenticeship have received much attention in recent years. With an emphasis on value for money, this attention is likely to continue.
- A variety of estimation approaches and use of different data sets indicate positive gains resulting from completion of an Apprenticeship but these returns vary in magnitude and longevity between studies. Appropriate comparator groups and counterfactuals are important in looking at the estimated returns to Apprenticeship as comparison to irrelevant alternatives will skew results and be meaningless.
- Using data from the Labour Force Survey, the returns to a Level 3 Apprenticeship have been estimated to range between 18 and 22 per cent (in terms of weekly earnings) compared to Level 2 qualifications. The returns to a Level 2 Apprenticeship have been estimated to be between 12 and 16 per cent (weekly earnings) compared to other Level 1 or 2 qualifications.
- The returns in terms of hourly earnings have been found to be lower than for weekly earnings which suggests that Apprenticeship has a positive effect on the number of hours worked.
- More recent studies, and on-going research, has used matched administrative data to examine the returns to Apprenticeship with the returns to a Level 3 Apprenticeship being estimated as 25 per cent one year post-completion and 15 per cent after seven years. The returns to Apprenticeship have been found to erode over time unlike the (lower) returns to other forms of further education.
- Greater wage gains have been found in particular sectors such as, construction and engineering.

Returns to employers

- Whilst the investment of employers in Apprenticeship is substantial, a series of studies have found that this investment is recouped by employers in a reasonable time after completion through productivity gains of apprentices who are retained by the employer. In engineering and construction, in which employers' costs of Apprenticeships are highest, employers can expect to recoup their investment in less than four years and less than 3 years, respectively. Other more qualitative returns for the business are also cited by employers in many studies.

Total economic returns

- Both BIS and the National Audit Office have estimated the total economic returns to government investment in Apprenticeship. BIS and NAO estimates are £28 per £1 of government expenditure and £18 per £1, respectively, overall. At Level 3, BIS has estimated the returns to be £24 and the estimate by NAO £21 per £1 of government spending, At Level 2, they are £16 (NAO) and £35 (BIS) per £1 of government spending. The NAO estimates are lower than the BIS estimates due to differences in the underlying assumptions made in each analysis, particularly with respect to the productivity gain to employers.

6.1 Recruitment, Retention and Completion

Hogarth *et al.* (2009) carried out a study commissioned by the former Learning and Skills Council which examined the factors that are associated with completion/non-completion of Apprenticeships.⁶ The Apprenticeship completion rate in the year of this study (2008/09) was 70.9 per cent. Hogarth *et al.* carried out a systematic literature review, econometric analysis

⁶ Particular aspects of this study were also reported in Gambin *et al* (2010).

of individual level data on learners in England and interviews with a number of key stakeholders.

Through their literature review, four main factors were found to account for apprentices failing to complete: 1) the quality of the work environment; 2) the quality and volume of training delivered in the Apprenticeship; 3) the characteristics of the apprentice; and, 4) the economic environment. Hogarth *et al.* summarised factors to be influential on completion / non-completion that were identified in their interviews with key stakeholders (including apprentice employers and training providers) into two groups:

- External factors, over which employers and apprentices have little control (e.g. conditions in the external labour market, quality of training supply and sectoral specificities);
- Internal factors, which fall within the scope of employer and apprentice influence (e.g. characteristics of the apprentices, quality of training providers, and management of the Apprenticeship).

Through analysis of data from the ILR, Hogarth *et al.* also found a number of characteristics of apprentices, their employers and the training they received to be associated with completion / non-completion. They found differences in the likelihood of completion by framework (with completion rates being higher in engineering, business administration, plumbing, vehicle maintenance or hairstyling), gender (females were found to have higher probability of completion), ethnicity (with some minority groups associated with lower chances of completion), and disability (those with learning difficulties and disabilities or health problems being less likely to complete their Apprenticeship).

Hogarth *et al.* concluded that while there is scope to improve completion rates, achieving 100 per cent completion is neither feasible nor desirable, particularly in the face of policy aims to increase participation and representation of particular quality groups in Apprenticeships.

Other recent studies have not focused solely on completion rates; rather they have considered it alongside analysis of other issues to do with Apprenticeships. Patrignani and Conlon (2011) used a linked ILR-HMRC/DWP dataset to examine the long-term impact of vocational qualifications, including Apprenticeship, on labour market outcomes including pay and employment. With respect to Apprenticeships, Patrignani and Conlon compared the outcomes for completers vs. non-completers and in doing so acknowledged that these two groups may differ in ways that would also impact on labour market outcomes so before carrying out analysis of wages and other labour market outcomes, the authors considered the determinants of completion of a qualification using the ILR. Similar to the study by Hogarth *et al.*, Patrignani and Conlon found a positive association between the probability of completion and being female whilst the probability of completion was found to be lower for

people from non-white ethnic groups and those with disabilities. This study also considered the effect of the number of guided learning hours (GLH) and found higher GLH to be associated with greater chances of completion. It should be noted that whilst Patrignani and Conlon carried out analysis of the determinants of achievement of vocational qualification, this part of their analysis did not report separately on these determinants for Apprenticeships.

The evaluation of Young Apprenticeships (YPLA, 2010) considered outcomes for the third cohort of the programme and found no statistically significant difference in achievement rates between males and females, by SEN or ethnicity though the achievement rate was slightly lower amongst apprentices who were eligible for free school meals. The probability of apprentices discontinuing their programme by the end of Year 10 was higher for females as well as for those who were eligible for free school meals and those with SEN statement. The probability of progression to Apprenticeship was found to be lower for young apprentices who were female, non-white and had a BTEC first qualification.

Lawton and Norris (2010) found that apprentices who did not complete their Apprenticeship were much more likely than completers to be on low wages and to have received poor quality training, however, views on whether increasing wages (through national minimum wage for apprentices) would lead to higher completion rates were mixed and many apprentices, employers and providers indicated that in most cases pay is not the main driver of apprentice behaviour in terms of completion. Where an Apprenticeship was undertaken in order to affect career prospects, young people were unlikely to consider wages a reason for not completing their programme.

Elston and James (2011) found a high completion rate (92 per cent) amongst employers they surveyed and retention rates (at 1 year and 3 years after completion) were also high, on average, with some variations across sectors. Whilst 95 per cent of apprentices in engineering were retained by their employer 1 year after completion only 29 per cent of those in agriculture, etc. were retained. Three years after completion, the retention rates for engineering and agriculture were 90 per cent and 18 per cent, respectively. Retention rates were found to be higher in the private sector compared to the public sector.

Satisfaction of learners with Apprenticeship is typically associated with higher completion and retention rates. Tu *et al.* (2011) analysed responses to the National Learner Satisfaction Survey (NLSS) which was conducted in 2009 and covered 4,979 apprentices. Early leavers were found to be less likely to be satisfied with the Apprenticeship than those who completed in the NLSS. The main reasons for leaving the programme early were that it had been the wrong choice for an individual or that the apprentice changed jobs. Compared to the 2007 NLSS results, there was a decrease in the share of early leavers who attributed leaving to

the Apprenticeship being the wrong choice but Tu *et al.* found an increase in the share that had left early because they changed jobs.

6.2 Progression Routes

The issue of progression, whether from Apprenticeship into higher education, between various levels of Apprenticeship, onto higher levels of further education, as well as into and within work, has been of growing research and policy interest. Grindrod and Murray (2011) argued that progression is a fundamental aspect of learning at work. In the past two years, a number of reports on this topic, particularly on progression to higher education, have been published. The incidence of progression amongst advanced apprentices in England has been found to be low – UVAC (2009) found that only 4 per cent reached higher education within a year of completing their advanced Apprenticeship and HEFCE (2009) found that only 6 per cent of those who completed their advanced Apprenticeship in 2002/03 had reached higher education four years later. The highest progression levels were found in accountancy, business administration and engineering. These progression rates are particularly low when compared with around 90 per cent of learners with A-levels going onto higher education.

UVAC (2010) set out two main reasons why low progression rates should be of concern. First, due to economic reasons where expansion of employment requiring high skills is forecast to continue advanced apprentices moving onto higher education forms an important part of meeting demand for higher level skills. Second, whilst expansion in higher education has been of benefit to those of relatively higher socioeconomic status, individuals lower down the spectrum are more likely to pursue vocational pathways and thus enabling progression for such people would improve social mobility. This study advocated for increases in the number of higher Apprenticeships available as well as for improved IAG and improved signposting and clearer entry requirements relevant to advanced apprentices. The latest Apprenticeship Pay Survey however, indicated that relatively few apprentices (7 per cent) planned to go onto other education or training, including higher education (less than 2 per cent in total), after completion (Higton *et al.*, 2012).

A recent study from the University of Greenwich (Smith and Joslin, 2011) used data from the ILR linked to HESA data to track entry of Advanced Apprentices into higher education. Of completers in 2005/06, 5.3 per cent were found to progress onto higher education immediately after completion of advanced Apprenticeship and 13 per cent had progressed into higher education after three more years. Progression of advanced Apprenticeship onto HEFCE-funded higher education was found to be greater than progression onto non-prescribed higher education (8 per cent over 4 years in the case of the former compared to 5.1 per cent for the latter). They found that overall progression rates had increased between

the 2005/06 cohort of advanced Apprenticeship completers and the 2008/09 cohort from 5.3 per cent to 6.8 per cent.

Smith and Joslin also reported differences in progression rates between frameworks and across regions. Advanced apprentices in accountancy were most likely to move into non-prescribed higher education whilst those who completed Apprenticeship at Level 3 in health and social care frameworks were most likely to move into HEFCE-funded higher education. Progression rates were found to be highest in the North East and low in London and the East of England.

The likelihood of advanced apprentices moving into full-time or part-time higher education was also found to vary. Those moving into HEFCE-funded higher education were more likely to undertake part-time study but advanced apprentices aged under 20 years old were more likely to study full-time. Advanced apprentices who progressed immediately after completion were also more likely to study full-time than those who moved onto higher education some time later.

Another study by researchers from the University of Greenwich is currently examining progression from Level 2 to Level 3. This study uses ILR data linked to HESA data and it is due to be published in June 2012.

CFE (2011) carried out discussions with 18 employers of Advanced Apprentices and characterised approaches to supporting employees wanting to progress onto education into three broad approaches: 1) systematic – in which all advanced apprentices progress onto Higher Education (typically Foundation Degrees or HNC/HND studies); 2) tactical – where progression and the employer's support was considered on a case by case basis; and, 3) ad hoc – where progression of an advanced Apprenticeship was only supported occasionally or sometimes, accidentally.

The employers included in the CFE study, indicated a number of reasons for supporting progression of their Advanced apprentices onto Higher Education including: a business need for higher level skills (often linked to the need for technical expertise in order to remain competitive or to fill replacement demand); development of a stock of talent for the future (especially for those with Advanced Apprenticeships in engineering and manufacturing frameworks); and some employers indicated that regulatory requirements could drive the need for progression, however there was concern that being 'required' to support such progression without a clear business case would be counterproductive.

The main costs cited by employers in supporting advanced apprentices onto higher education are the opportunity cost of the apprentice's time away from work and the costs associated with reorganising the workforce and the apprentice's work to accommodate time away for study – these costs, in some cases, could be greater than the direct costs to the

employer (e.g. fees, course materials, travel and subsistence, administrative costs). CFE found that most employers evaluated the costs and benefits of progression (and their support of it) on a qualitative rather than quantitative basis but many were looking at carrying out more robust analysis in order to build a more robust business case for supporting their advanced apprentices onto higher education.

Kinnear (2010) administered questionnaires and carried out telephone interviews with apprentices and employers who had been involved (or were currently involved) in Apprenticeship in two further education colleges in the South West of England. The achieved number of participants in the study was low and the focus limited in terms of geography and thus the results cannot be considered representative. However, the study did consider some interesting comments from training providers, apprentices and employer. Kinnear found that whilst apprentices had reasonably high expectations of going onto higher education, the number who actually undertook higher education course (or even knew what was available to them in this respect) was low.

Kinnear reported that most employers were found to offer progression from Apprenticeship to advanced Apprenticeship. Whilst this progression was not compulsory, many employers indicated that they heavily encouraged it. Some employers indicated, however, that there were places for individuals only completing Level 2 within the organisation whilst other employers in the same sectors (hairdressing and construction) indicated that a Level 3 qualification would be expected of employees.

Most employers indicated that higher education qualifications were not essential for progression within the organisation. Of the employers involved in the study, Kinnear found that those in hairdressing were least likely to support progression to higher. Across all sectors considered, most employers indicated that progression was dependent on the capability of the apprentice, the financial situation of the firm, and whether the employer could offer work at the appropriate level.

LSN (2011) looked at various issues to do with Apprenticeship and higher education. The authors suggested that often Advanced apprentices are compared to the wrong group of other learners. Comparing 16 to 18 year old apprentices with young people undertaking higher education is not informative and the correct comparison should be to 16 to 18 year olds with other Level 2 or Level 3 qualifications such as GCSE, A-Levels and diplomas. Other differences between Apprenticeship and higher education were highlighted including significant differences in funding and costs – particularly in terms of the debts taken on by learners. For fees alone, learners might have to pay back loans of between £12,000 and £18,000 for full-time and part-time foundation degrees and between £18,000 and £27,000 for full-time and part-time undergraduate degrees. This compares to between £5,000 and £9,000 for adult apprentices.

LSN argued that having a good, high quality technical pathway from Level 3 to Level 6 would help to meet employer demand for higher level skills without requiring government to increase the number of higher education places available each year. The study also raised the question of how credible it would be to encourage 18 year olds with good A-levels to enter adult Apprenticeships as currently this would require an individual to study at the same level (Level 3) or in many cases at a lower level (Level 2 Apprenticeship) as this may be required to enter into an advanced Apprenticeship, despite already holding a Level 3 qualification. LSN argued that it would be most cost-effective for 16-18 year olds to take advanced Apprenticeships in the first place rather than regressing after completing A levels.

Hall *et al.* (2010) outlined recommendations for the development of Higher Apprenticeships arguing that while progression of advanced apprentices onto higher education is low, there is a greater desire by individuals to progress and that it is very much the offer from higher education that holds back progression. They estimated that there are potentially 70,000 apprentices interested in progression to higher education (though this figure incorporates a number of assumptions that are applied to the whole population of Apprenticeships which may not hold true in reality) but that there are no appropriate progression routes available for them. Hall *et al.* proposed that Higher Apprenticeships would provide a better option than what is currently on offer from higher education. A work-based progression route that links to individuals' existing Apprenticeships would help to overcome a barrier to progression. The authors made recommendations on the range and shape of higher Apprenticeships and outlined how Lifelong Learning Networks are well-placed to work with employers on developing higher Apprenticeships that meet the demands of learners as well as fulfil the needs of employers.

SCTP (2011) looked at barriers to progression and the desire of apprentices to progress onto higher education through use of online surveys of 173 advanced apprentices and 68 employers of advanced apprentices in Sussex. This study was limited in terms of being representative as it was based only on one region and a small number of responses to surveys. Two-thirds of advanced apprentices were aware of the possibility to progress to higher education but many were uncertain of their employer's support in doing so. More employers were aware of progression routes being available and indicated that they were supportive of advanced apprentices going onto higher education but the type of support they would be willing to provide varied with some indicating they would pay for materials, others that they would provide unpaid leave for study and others that they would provide paid study leave.

Tu *et al.* (2011) also found that apprentices did aspire to continue learning after completion of their Apprenticeship with more than 75 per cent of completers indicating that they were

likely to undertake further learning in the next three years and the share who were 'very likely' to do so had increased since 2007.

Chappell (2011) considered difficulties encountered by advanced apprentices moving onto higher education, citing a lack of information on entry criteria and lack of flexibility in the delivery of higher education programmes which is not compatible with advanced apprentices. Chappell highlighted, like many other studies, that good quality IAG is important in encouraging progression. He also pointed out that even with significant growth in the number of Higher Apprenticeships offered progression routes would still not be available for all advanced apprentices.

Fuller *et al.* (2010) examined issues which inhibit, and conversely, those which facilitate progression. Their work included desk-based research and key informant interviews focused on Hampshire and the Isle of Wight. With regards to existing provision at Level 4 and Level 5 in the area, they found that there was a wide range for provision at Levels 4, 5 (HND, Foundation Degree) and 6 (Bachelor degree) in business and management, construction and engineering. In creative industries they found good provision at level 6 and some at Level 5. Provision of training/education programmes in the area in retail were lacking at Level 4 and above. There was a wide range of provision at bachelor level in higher education for childhood, youth and community studies and Fuller *et al.* also found a number of diverse progression routes available for health and social care including pre-registration nursing courses.

Despite there being various provision of progression routes in region, the study found that opportunities for advanced apprentices were not well sign-posted, even for HNC programmes which had been viewed as a 'natural next rung in the ladder' for ex-technical apprentices and as providing a platform for progression to HND and onto Bachelor degrees. The entry requirements for Foundation degrees and other higher education programmes were also found to not clearly identify Advanced Apprenticeships as meeting (or not) the criteria for entry.

Fuller *et al.* also considered the impact of Lifelong Learning Networks on progression from advanced Apprenticeship to higher education. The study recommended that Progression Agreements for Advanced Apprentices be considered as these would be likely to have a positive impact on progression rates.

The evaluation of outcomes for the third cohort of Young Apprenticeships found that the majority (95 per cent) of those who completed the programme progressed onto further education or training and 19 per cent went onto Apprenticeships (YPLA, 2010). The likelihood of moving onto post-16 Apprenticeships was higher for those who completed young Apprenticeships in hairdressing, construction, motor industry and engineering and was lower for those who completed YAs in business administration, health and social care

and sport. The likelihood of progressing to Apprenticeship was also lower for those who did not complete their YA programme.

A small scale mixed methods (paper questionnaire and interviews) study in the South East of England explored factors that affect young people's decisions not to progress to higher education after completing Level 3 vocational education (Aynsley and Crossouard, 2010). The study considered young people's 'imagined futures' and found that while young people had aspirations, they did not look to immediately progress to higher education. The most favoured future was to enter work.

6.3 Barriers to Progression

Davey and Fuller (2010) reported on the findings of the first part of an English study as part of a European Leonardo project investigating the value of hybrid qualifications, which are defined as those supporting the development of vocational skills, knowledge and understanding valued on the labour market while also keeping open options for further study. In the context of advanced Apprenticeship the key issue examined was whether some of the qualifications gained (especially some of the smaller ones but also NVQ3 in areas other than accountancy) were recognised in the UCAS tariff for entry into HE. On the other hand, Lifelong Learning Networks or other organisational arrangements could support vocational progression to HE, particularly to Foundation degrees and HE provision delivered within FE. Overall, although vocational progression with opportunities for further study in particular settings and contexts was sometimes possible within a range of arrangements there were often considerable challenges to progression coupled with recurring tensions between autonomy, flexibility and consistency.

Davey and Fuller reiterate findings from earlier research by Fuller and Unwin (2003, 2007) in relation to examples of good practice in Apprenticeship that it is important that training (both on and off-the-job) is seen as relevant to apprentices' work tasks and as providing a platform for further progression. The Fuller and Unwin (2003, p. 411) features of an expansive approach to Apprenticeship are also emphasised and these include the following:

- participation in multiple communities of practice inside and outside the workplace;
- breadth: access to learning fostered by cross-company experiences built into terms of programme;
- access to range of qualifications including knowledge-based vocational qualifications;
- planned time off-the-job including for college attendance and for reflection;
- gradual transition to full participation (in community of practice);
- Apprenticeship aim: rounded expert / full participant;
- post-Apprenticeship vision: progression for career;
- explicit institutional recognition of, and support for, apprentices' status as learner;

- named individual acts as dedicated support to apprentices;
- Apprenticeship is used as a vehicle for aligning the goals of developing the individual and organisational capability;
- Apprenticeship design fosters opportunities to extend identity through boundary crossing;
- reification of Apprenticeship highly developed (e.g. through documents, symbols, language, tools) and accessible to apprentices.

Davey and Fuller highlighted how most qualifications can be conceived as falling within either an education or employment paradigm and the persistence of the academic – vocational divide has made it difficult for hybrid qualifications to emerge and become established as a route, or paradigm, in their own right. The authors argue that the concept of hybridity may be one way of facilitating the creation of such a new paradigm: ‘at Level 3, the BTEC National suite of qualifications perhaps come closest to the idea of a hybrid qualification in the English system, being neither clearly in the education or employment ‘camp’ but having recognition by employers and HE. However, although the whole programme revolves around one vocational area or sector, work experience or a work placement is not a mandatory element of the route, nor does the qualification count as a licence to practice. Both these features bring the strength of the qualification’s labour market currency into question’ (p. 79). Advanced Apprenticeship could also be considered as a candidate for hybrid status, but only if they contain a qualification such as BTEC National Certificate which is recognised in the UCAS tariff and clearly represents recognition of substantive learning and development. ‘The inconsistency in what can count as an Apprenticeship in the government supported programme currently means that its ‘hybrid capacity’ is highly contingent on the specific make up of qualifications available in individual sector frameworks (Fuller and Unwin 2009)’ (p. 80). Davey and Fuller illustrated that only some Apprenticeships could currently be regarded as possible hybrid qualifications, with the rest firmly rooted in the employment paradigm.

In their final report of the project mentioned above, Davey and Fuller (2011) highlighted how in mapping the qualifications and pathways in England which might be seen as ‘hybrid’ the authors found that:

- Transitions in England are characterised by a deep and enduring academic-vocational divide.
- Vocational provision is diverse with limited standardisation, and often unclear and weak currency for progression to HE or the labour market.
- The position of vocational qualifications is very much as ‘other’ to the more clearly-articulated, visible and established currency for progression to bachelor degrees associated with academic qualifications and pathways.

- With the exception of some well-established examples, vocational pathways (at Level 3) to the labour market are not clearly-defined, and the linkages are not well established.
- The worth associated with particular qualifications is often established in practice and over time. This may be in relation to other factors such as the reputation of the employer in which an Apprenticeship has been completed, or the trust and familiarity HE institutions and courses have in relation to particular awards held by applicants.
- Amidst the policy imperative to widen and increase participation, the English higher education system remains characterised by a hierarchy of institutions and programmes. Undergraduate provision includes sub-bachelor level courses (Level 4 and 5) and bachelor degrees (Level 6): 'non-standard' vocational entry level qualifications are less likely than academic qualifications to give direct access to bachelor degrees or to prestigious universities.
- There is a less developed concept and realisation of 'system' in the English education and training context than in comparator European countries.

The analysis and discussion presented by Davey and Fuller (2010, 2011) implies that in the English case it is very unlikely that many Apprenticeships could meet 'strong definitions' of providing full access to either HE or the labour market, where these involved access to all HE institutions; access to bachelor degrees (not only to sub-bachelor degrees); access to all subjects (not only to cognate subjects) for HE; and access to the skilled labour market (beyond or within an occupational field); access to professional body memberships; licence to practice; wage return on qualification; social partner recognition (e.g. trade unions, chambers); access to next level of training; access to work-based career pathway on the labour market side.

Recent publications that consider progression of apprentices indicate that progression to Higher Education is low and the level and nature of employer support for progression of apprentices is varied and depends on the sector. There is potential for progression rates to be improved as a significant number of apprentices express interest in moving onto further learning post-completion. While there are a number of options for progression already available to apprentices, the research finds that information on these options is not always readily available to apprentices. Furthermore, in order to improve employer support for progression, there is a need to show a business case for apprentices moving into higher education or other studies which can be especially challenging in many sectors where the need for higher level skills is not clear to all employers.

6.4 Wages and Terms and Conditions of Employment

As discussed above in relation to the attractiveness of Apprenticeships for individuals, the conditions and pay/reward experienced by apprentices can be an important factor in

determining whether individuals undertake or complete such training (though pay is not thought to be the deciding factor for most). The requirements set on employers in relation to pay and conditions for Apprenticeships can also influence employer behaviour.

In assessing the overall patterns of apprentice pay it is important to bear in mind the nature of Apprenticeships as a training programme (undertaken whilst in employment with both on- and off-the-job training provision) in which apprentices, presumably, participate in order to increase their skills and in turn improve their employment prospects and future earnings. Participating in Apprenticeship then is seen as an investment (by the learner) in their human capital. During the training period apprentices would expect and be willing to accept lower wages in the promise of higher future earnings. Employers would pay lower wages in order to reflect the lower productive contribution of apprentices during the training period (due to both time away from the job whilst training and inexperience of the apprentice). Higher pay then does not necessarily reflect whether an Apprenticeship is 'good' or 'bad', even from the apprentice's perspective, as payment of lower wages should reflect the investment being made in skills and human capital as well as lower productivity prior to becoming fully-skilled in the job.

Fong and Phelps (2008) reported on the 2007 survey of Apprenticeship pay in England. They found that the average net weekly wage for an apprentice in 2007 was £170 with variations by sector, age, type of Apprenticeship and gender. Apprentices studying at Level 2 earned an average £159 compared to £179 for Level 3 Advanced apprentices. Between 2005 and 2007, however, the pay gap between Level 2 and Level 3 Apprenticeships decreased from 26 per cent to 11 per cent. Net pay was found to be lowest in hairdressing, averaging £109 per week, whilst higher wages were found in retail and hospitality. Average apprentice pay was highest in electrotechnical engineering at £210 per week.

The latest Apprenticeship Pay Survey (Higton *et al.*, 2012) found that average net weekly pay for apprentices in England in 2011 was £209 whilst it was £212 across Great Britain. Mean gross hourly pay was £5.84 in Great Britain and slightly lower, £5.80 per hour, for England. Higton *et al.* found hourly pay was, on average, lower for Level 2 than for Level 3 apprentices, with the mean gross hourly pay rate being £5.31 and £6.62 for Level 2 and 3, respectively, in Great Britain. In England, Level 2 earned £5.27 per hour (gross) and Level 3 earned £6.68 per hour (gross) in 2011. The pay gap between Apprenticeship and Advanced Apprenticeship is around 20 per cent in the latest survey. The 2011 gross weekly pay figures showed a decline in real pay terms between the previous survey (Fong and Phelps, 2008) and the latest (Higton *et al.*, 2012), though there are some methodological differences between the two surveys.

More recent research into pay and conditions of apprentices includes work by Lawton and Norris (2011) who carried out a qualitative study of Apprenticeship pay for the Low Pay

Commission (LPC). They examined variation in Apprenticeship pay across the UK and considered the role of pay in young people's decisions to start and to complete Apprenticeships. The study also considered potential responses of employers to the introduction of national minimum wage requirements for apprentices. Their approach included conducting focus groups with current and former apprentices, surveying young people (current and former apprentices, apprentice leavers (without completion) and young people who had considered Apprenticeship but did not start one), and interviews with employers in low-pay sectors who regularly employed apprentices as well as with training providers and careers advisers. Lawton and Norris focused on low-pay sectors: hairdressing, retail, early years, hospitality and social care. They also considered engineering in the study to provide a relatively high-pay sector for comparison.

The study for the LPC indicated that pay was not the main reason most young people started Apprenticeships, but for some, mainly those in retail and hospitality, pay was a more important factor. Lawton and Norris argued that pay might matter more in these sectors as these apprentices were likely to be working before starting an Apprenticeship and so would want to maintain an income. Pay was also found to be a relatively more important factor for older apprentices and for young apprentices who were not living with their parents. Overall, family and social background was found to have greater bearing on participation decisions than pay or most other factors. In many cases, the presence of an Apprenticeship wage, but not its level, was considered to be important.

Pay was found to be lowest for Apprenticeships in hairdressing and higher in retail, hospitality and engineering. The group of engineering apprentices included in this study did not include any females which further illustrates that women are disproportionately represented in the lower paid Apprenticeship sectors than in higher paid ones. Lawton and Norris did not find any strong gender differences in pay within sectors.

Lawton and Norris found pay levels to be associated with the lower quality of training often coinciding with employers paying lower wages to apprentices. Those apprentices that did not complete their Apprenticeship were much more likely than completers to have been paid low wages and to have received poor quality training. In view of this finding, it might have been expected that increasing wages (for example, through national minimum wage requirements for Apprenticeship) would improve completion rates. While the study found some views in support of this, overall there was disagreement amongst young people, employers and training providers. Where young people undertook Apprenticeships because they felt the qualification was of value for their career prospects, they were unlikely to consider wages a valid reason for not completing their programme.

With regard to employers' views on wages for apprentices, Lawton and Norris found that existing pay levels did not present a barrier to provision for most employers. In some sectors

(mainly hairdressing) where employers used existing pay exemptions in relation to apprentices, such employers were not supportive of national minimum wage regulations for Apprenticeship while those who did not use pay exemptions viewed such regulations positively seeing them as potentially helping to prevent exploitative use of apprentices. Careers advisors also held positive views of national minimum wage rules for apprentices as these could facilitate IAG activities by enabling advisers to provide clear information on likely wage levels to potential apprentices.

Elston and James (2011) conducted an online survey of employers (mainly those employing apprentices) to examine apprentice pay and conditions of work achieving a sample of 289 employers out of 7,000 approached (4 per cent response rate) so their results cannot be considered representative of all apprentice employers. They found apprentices were paid £12,635 per year, on average. Females were concentrated in lower paid sectors and there was also some positive correlation between apprentice pay and employer size.

Their survey also indicated that apprentices, on average, were contracted to work 36.8 hours per week actually worked, on average, 34.3 hours per week. Across all sectors considered, apprentices spent 7.8 hours per week in off the job training, on average – this ranged from 5.2 hours per week in retail to 8.8 hours per week for engineering.

Higton *et al.* (2012) found that most apprentices (38 per cent) were contracted to work between 35 and 39 hours per week, whilst 26 per cent were contracted to work 40 to 44 hours per week. Across Great Britain, apprentices spent on average, 6.5 hours per week in off-the-job training and 12.6 hours per week in on-the-job training.

Ryan *et al.* (2010) considered Apprenticeship pay in Britain, Germany and Switzerland in engineering and retail using information from face-to-face interviews with senior managers in 56 companies across the three countries. They examined how pay varied across sectors and countries as well as differences in the determinants of apprentice pay. Apprentice pay, as a percentage of skilled workers' wages, was found to be highest in Britain, followed by Germany and lowest in Switzerland. As a percentage of skilled workers' pay, engineering apprentices in Britain were paid 41 per cent; in Germany they received 29 per cent and in Switzerland just 14 per cent. Reasons for apprentice pay being high in Britain were found to include a short supply of acceptable young people for Apprenticeship places in engineering and possibly that given substantial subsidies for Apprenticeship in Britain, employers could afford to pay higher wages to apprentices compared to Germany and Switzerland where subsidisation is lower.

Earlier analysis (summarised by Steedman (2010)) also found apprentice pay to be high in England relative to other countries with established systems of Apprenticeship with average pay levels in England being more than twice those found in France and Switzerland and significantly higher than average Apprenticeship pay in Germany and Austria.

6.5 Returns to Apprentices

The potential return to Apprenticeship is an important factor in determining participation by individuals as well as employer engagement. In order to improve the degree of engagement of individuals and employers with Apprenticeships, providing evidence of the benefits of the programme is important. Increasing attention is being paid to the returns to Apprenticeship training in research on Apprenticeships, including the returns to individual apprentices, employers and the wider economy. The returns to Apprenticeship for individuals which have been examined in recent research include improved probability of employment, higher earnings over the lifetime, sustainable employment and occupational mobility.

A number of recent studies examining the wage returns to individual apprentices compare their results to previous analyses, particularly that of McIntosh (2007). McIntosh (2007) used data from the Labour Force Survey (2004/05) to estimate the net benefits and internal rates of return associated with Apprenticeship. His approach used different comparators for different levels of Apprenticeship. The returns to having completed a Level 3 Apprenticeship were compared to having a Level 2 qualification while the returns to Level 2 Apprenticeships were compared to those for Level 1 or 2 qualifications. As McIntosh noted, the estimated magnitude of the estimated returns to Apprenticeships is dependent on the choice of comparator group. McIntosh found a wage return of 17.7 per cent to Advanced Apprenticeship compared to a Level 2 qualification and a 15.6 per cent return to Apprenticeship at Level 2 compared to other Level 1 or 2 qualifications.

More recent analyses of the individual level returns to qualifications gained through Apprenticeships have also found positive results but the magnitude of these estimates has differed from McIntosh for various reasons including differences in comparators groups and the inclusion criteria for apprentices and other methodological differences (*e.g.* econometric approach).

A BIS-commissioned study in 2011 (Conlon *et al.*, 2011), considered the returns to Apprenticeships. This study adopted a similar approach to that of McIntosh (2007) with some differences in relation to: the group of apprentices considered (in terms of highest qualification and exclusion of those with other qualifications at an equivalent level); the comparator groups being used (where Conlon *et al.* only included individuals with other qualifications at Level 1 and / or Level 2; and, the dependent variable (hourly wages were the main dependent variable used by Conlon *et al.* but they also used weekly pay to facilitate comparison with McIntosh) and some explanatory variables (Conlon *et al.* included a continuous time variable while McIntosh did not). Both studies used data from the LFS but, McIntosh covered 2004/05 and Conlon *et al.* used data for 2004 to 2009.

Despite the differences between these two studies, it is useful to compare their results. Both found positive wage returns to Apprenticeships and Advanced Apprenticeships with the

returns to Level 2 found to be smaller in the more recent study (12 per cent (weekly earnings) compared to 16 per cent in McIntosh (2007)) but Conlon *et al.* found higher returns to Advanced Apprenticeship (Level 2) compared with McIntosh (2007) (22 per cent v. 18 per cent (weekly pay)). The returns in terms of hourly wages were found to be lower suggesting that Apprenticeship is associated with increased working hours.

In terms of effects on employment, Conlon *et al.* found that the probability of employment was 13.8 per cent higher for those who had completed an Advanced Apprenticeship compared to those who had a Level 2 (vocational or general education) qualification. This enhanced probability was also found to be greater for men than women. The probability of being in employment was found to be 9.5 per cent higher for those who had completed an Apprenticeship (at Level 2) compared to those with either Level 1 or other Level 2 qualifications. The increased probability of employment was found to be greater for women than for men in the case of intermediate Apprenticeships.

In carrying out their recent value for money assessment of Adult Apprenticeships, the National Audit Office (NAO) (2012) has also estimated the individual returns to Apprenticeships. Their estimates of the wage premia largely agree with those found in other studies. The wage premium was estimated to be around 18 per cent for Advanced Apprenticeships (compared to Level 2 qualifications) and 11 per cent for Intermediate Apprenticeships (compared to Level 1 or 2 qualifications). NAO points out that there is likely to be some selection bias included in their estimates as they did not control for some of the qualities and abilities of individuals. As a result, their estimated wage premia indicate associations between Apprenticeships and higher wages rather than being indicative of causal effects. NAO also found some decline in the returns to Level 2 Apprenticeships over the period 2004 to 2010 of about 2.4 per cent per annum; however, their analysis did not examine potential causes of this reduction.

The NAO report also considered the employment returns to Apprenticeship, finding a positive association between completion of Apprenticeships and the probability of being in employment. The probability of being in full-time employment was found to be 3.8 per cent higher for advanced Apprenticeships (compared to those whose highest qualification was at Level 2) and 1.6 per cent higher for intermediate Apprenticeships (compared to those with only Level 1 or 2 qualifications). This enhanced probability of employment was lower than that found in other studies (see above) mainly because the NAO study excluded inactive individuals from their comparison group whereas they are included in other studies.

The NAO technical paper provides a summary of wage premia estimated in a number of studies, including their own. This is reproduced in Table 6.1.

Table 6.1: Comparison of estimates of wage premium to Apprenticeships (%)

	McIntosh (2007)	Conlon <i>et al.</i> (2011)	<i>et al.</i> Conlon (2011)	NAO (2012)	NAO (2012)	NAO (2012)
	own specification	McIntosh approach	own specification	own specification	own specification	McIntosh approach
	2004-2005	2004-2009	2004-2009	2004-2010	2004-2010	2004-2010
	Weekly earnings	Weekly earnings	Hourly earnings	Weekly earnings	Hourly earnings	Weekly earnings
Advanced Apprenticeship (Level 3)	17.7***	22.4***	13.3***	17.9***	12.9***	21.5***
Apprenticeship (Level 2)	15.6***	11.7***	7.9***	10.6***	7.9***	13.1***

Notes: 1. The numbers presented here are the actual wage premiums calculated from the estimated coefficients using log transformation described in paragraph 1.18.

2. *** 1 per cent level of statistical significance; ** 5 per cent level of statistical significance; * 10 per cent level of statistical significance; absence of asterisk on the number means no statistically significant results were found. The level of statistical significance gives the probability that the true return is zero or lower, on the assumption that the model is correctly specified.

Source: Reproduced from NAO (2012), Figure 5, p. 16

Other recent studies have used different data sets, including matched administrative data, to estimate the returns to Apprenticeship for individuals. Patrignani and Conlon (2011) used data from the ILR linked to HMRC and DWP databases to investigate the long term effect of vocational qualifications on various labour market outcomes. In their analysis, they found Apprenticeships to have the largest impacts on learners compared to other vocational qualifications (including Train to Gain and standalone NVQs). In looking at Apprenticeships, Patrignani and Conlon compared individuals who had completed their programme to those who did not (excluding those who transferred to another learning aim or were still studying). They found a positive association between completion of Apprenticeship on earnings both at one and seven years post-completion. At Level 3, earnings were estimated to be, on average, 25 per cent higher for completers than non-completers one year after completion and 15 per cent higher seven years after completion. For Level 2 Apprenticeships, the difference after one year was 24 per cent. Whilst returns were found over the longer period, there was evidence that the returns to Apprenticeship had been eroded somewhat.

The returns found by Patrignani and Conlon are high compared to other studies this may, at least partly be due to the comparison they use (completers *versus*. non-completers). The comparison made in their study differs from that found in most other studies. Patrignani and Conlon preferred this comparison to others they explored (including comparison to those individuals 'simultaneously attaining' qualifications at adjacent levels and comparison of learners before and after completion of their programmes) and indicated that they had controlled for a number of observable characteristics that influence qualification attainment.

There are still likely to be unobservable differences between completers and non-completers which affect their labour market outcomes which the authors have not controlled for (e.g. motivation, ability) and as such, their estimates of the returns to completion (*versus* non-completion) may be overstated as some of the impact of these unobservable characteristics was attributed to the completion of Apprenticeship (and other qualifications). As the study used administrative data it was therefore unable to draw comparisons to individuals outside the FE system unlike studies which have been based on the LFS.

Frontier Economics and the Institute for Fiscal Studies (IFS) (2011) also carried out analysis linked ILR and HMRC/DWP data in order to consider employment and earnings and differences in these outcomes for different types of learners. The analysis looked at differences in employment and earnings before and after learning. Based on descriptive analysis of the data (using frontier analysis), large gains in employment and earnings were found for apprentices. For adults (age 19 years and older), employment increased by 24 per cent for those who undertook Apprenticeships at Level 2 and by 67 per cent for those who studied at Level 3. Similarly, earnings were found to have increased by 30 per cent and 43 per cent for Level 2 and Level 3 Apprenticeships, respectively.

For intermediate Apprenticeships, average earnings increased by 53 per cent on average for those undertaking frameworks in construction, planning and the built environment. Increase in employment was greatest in ICT (48 per cent) and engineering and manufacturing frameworks (41 per cent). The percentage of individuals claiming benefits decreased by 2 per cent overall after completion of Level 2 Apprenticeship.

In the case of Advanced Apprenticeships, earnings gains were found to be greatest for apprentices who completed frameworks in construction (80 per cent increase on average) and engineering (61 per cent increase). The employment rate increased by the most in arts frameworks (61 per cent increase), engineering (57 per cent) and by the least in agriculture and retail (22 per cent increase in each).

Based on the same linked data, Frontier Economics and IFS (2011b) also considered the relationship between age and the returns to training. In this secondary analysis, returns to Apprenticeship were not isolated but overall, they found that the outcomes in terms of employment and earnings were higher for younger learners (16 to 19 years of age) and smallest for the oldest group (25 years and above).

Other studies have considered the returns to individuals (and others) using markedly different approaches. SQW (2012) recently estimated the economic value of additional Apprenticeships from the Million Extra⁷ campaign (which aims to produce one million Apprenticeship starts from 2011 to 2013) with consideration of the benefits to individuals,

⁷ See www.million-extra.co.uk for more details on this campaign.

employers and the whole of the country. SQW estimated the annual gain in earnings to an individual to be £1,524 for completion of a Level 2 Apprenticeship (compared to other Level 2 vocational qualifications) and £1,634 for Advanced Apprenticeship (compared to other Level 4 vocational qualifications).

Cörvers *et al.* (2010), whilst not considering Apprenticeships in isolation, found that employees who had obtained upper secondary qualifications via vocational education programmes had higher initial earnings after completion of their qualification, on average, than those who obtained the same level of qualification through general education programmes. This result was found for the UK, Germany and the Netherlands though the magnitude of the difference between vocational and general education qualifications differed between countries with the UK falling between the other two countries in this respect. This study used Mixed effects linear regression models and they also considered the change in this earnings premium over time and found that within 10 years of completion of upper secondary qualifications, the earnings curves of general education and vocational education intersected. In the UK, the earnings of those who gained their qualification through for those with general education qualifications earnings were higher than those who went through vocational education between about 7 years and 35 years post completion.

Garrett *et al.* (2010) considered a range of evidence on the returns to vocational qualifications, including Apprenticeships. They summarised that vocational qualifications provide substantial wage returns from Level 3 onwards and at Level 5 these returns are greater than those attributed to academic qualifications. The magnitude of the wage returns to Apprenticeship relative to other vocational qualifications at the same level suggest that Apprenticeships are 'one of the most valued vocational qualifications and that their value in the labour market has been rising' according to Garrett *et al.*, however, this is contrary to the NAO finding that returns to Level 2 have declined over the period 2004 to 2010 (by 2.4 percentage points per year).

6.6 Returns to Employers

The Net Benefits of Training Series (*e.g.* Hasluck *et al.*, 2009; Hogarth *et al.*, 2012b) provide the most systematic series of studies on the returns to employers, conducted over the past fifteen years. These provide case study evidence on the returns to employer investment in Apprenticeships (and other forms of WBL in the latest study (Hogarth *et al.*, 2012b). These studies have considered the costs and benefits of Apprenticeship training for employers in a number of sectors and have estimated the time over which employers recoup their investments in Apprenticeships post-completion.

The methodology employed by the IER series involves face-to-face interviews with employers who employed apprentices. Employers indicated a number of reasons for

engaging with Apprenticeships during these interviews which echo the benefits of Apprenticeship training identified by employers in other studies (see above). Some of the features of Apprenticeships which employers reported to be beneficial included: being able to train young people within the culture of the business; fulfilling some aspects of the employer's social responsibility; and, having apprentices acquire useful skills and competences while contributing to the business at the same.

Whilst employer investment in Apprenticeships has been found to be substantial, the Net Benefits of Training Series of studies have shown that the productivity gains attributed to completion of Apprenticeship training (as indicated by employers) are sufficient to ensure that employers costs are recovered within a reasonable period after training is completed. In sectors with relatively high training costs, such as engineering and construction, the studies have estimated that employers typically recover these costs within 3 years of completion of an Apprenticeship in construction and within 4 years in engineering. These payback periods are not long when compared to the duration of the Apprenticeships which are 2-3 years in construction and 3 to 4 years in engineering. In some of the low-cost sectors (e.g. retail and hospitality) whilst employers invest relatively little in providing Apprenticeships the payback period is extended (often being longer than the duration of the training period) as the gain in productivity stemming from completion of the Apprenticeship is relatively low (sometimes being negligible where existing employees are trained through Apprenticeship and there is no increase in wages after completion).

In their analysis of the returns to the Extra Million initiative, SQW (*Ibid.*) set out a number of benefits to employers of Apprenticeships including improved labour supply, increased efficiency in terms of recruitment and retention, and productivity gains stemming from employees having the 'right skills' and embracing company values. Overall, SQW estimate the gain to employers from the Million Extra campaign to be £602 million gross per annum by 2017 (£322 million net of deadweight) and cumulative gain of £4.37 billion gross over 2012 to 2020 (£2.35 billion net). The largest gains were estimated for engineering, construction, customer services and business administration (but much of this is due to the assumption that the extra Apprenticeship places will be distributed across sectors similarly to the current distribution). SQW also considered the multiplier effects of these additional Apprenticeship places and estimated the total impact on the UK economy to be an additional £55 million per annum by 2020 and £415 million (cumulative) over the period 2012 to 2020.

Garrett *et al.* (2010) summarised evidence on the benefits of Apprenticeship for businesses and group these benefits into the following categories:

- Effects on business performance
- Impacts, organisational values, behaviours and culture
- Relevance of skills and reduced skills shortages and gaps

- Social responsibility
- Reduced costs
- Help to redress an aging workforce.

Garrett *et al.* concluded that the benefits of Apprenticeships are many and they go beyond positive impacts on organisational performance to include others benefits which can improve the functioning of an organisation by addressing labour supply problems and embedding organisational values and behaviours more deeply within its workforce.

McIntosh *et al.* (2011) did not find any statistically significant relationship between offering Apprenticeships and higher productivity (a year later). The limitations of the data used in this analysis means that it is unclear whether there is indeed no relationship between these two variables or whether with a longer period of observation a significant relationship would be found. Other work on the returns to Apprenticeship (IER Employer benefits series) would suggest that the latter is likely to be the case and that Apprenticeships may improve productivity over the longer term.

6.7 The Total Economic Returns to Apprenticeships

NAO (2011) not only considered the individual level returns to Apprenticeships but also estimated the return to the overall economy, including both benefits to individuals (including learners and co-workers) and employers. Compared to estimates of the return on Government investment in the programme obtained by BIS (2011), the NAO found lower returns – £18 per £1 pound of Government expenditure compared to £28 per £1 of government expenditure. The BIS and NAO estimates of return also differ by level of Apprenticeship with the return on each pound of public investment in Advanced Apprenticeships estimated to be £24 by BIS and £21 by NAO, and the return on £1 of government spending at Level 2 estimated as £35 by BIS and £16 by NAO (where both estimates include all apprentices).

There are a number of differences in the calculation of these returns between BIS and NAO. The estimated spillover return to employers is assumed to be 100 per cent of the wage premium to Apprenticeships in the BIS calculations compared to 25 per cent in the NAO approach. When BIS considered all Apprentices, not just those for whom their Apprenticeship qualification was their first qualification, their estimated return per pound of government expenditure on Apprenticeships was £28 which is much closer to the NAO estimate which included all apprentices. The assumed work expectancy (an estimate over the number of years individual are likely to work after completion of their Apprenticeship) for apprentices which entered into the calculations of overall returns to Apprenticeship was also lower in the NAO estimates compared to those of BIS (28 years for Apprenticeships and 27 years for Advanced Apprenticeships) with NAO noting that given the increase in the average

age of apprentices at completion of their qualification, the average work expectancy is expected to be lower. The main reason these estimates differ between studies is that BIS attributes productivity gains to the employer which is equal to 100 per cent of the wage premia attached to Apprenticeship whilst NAO considers the assumes that employers make a gain equal to 25 per cent of the wage premium. Additionally, the increased probability in employment arising from completion of Apprenticeships is reduced in the NAO approach as they assume that this enhanced probability is likely overstated in the BIS estimates as apprentice are often already in employment. Differences in the use of weekly or hourly earnings can also give rise to differences in the overall estimate of returns to Apprenticeships.

An evaluation of Creative Apprenticeships (Baker Tilly, 2011) estimated that the most recent cohort of learners in the programme would deliver a net gain of £2.4 million to the UK economy over the next 10 years. Estimating the returns for the next five cohorts of the Creative Apprenticeships would contribute £16.4 million to the economy over ten years, even when using what the authors regarded as 'prudent' growth forecasts for the number of learners in future cohorts of the programme.

Various analyses of the returns to Apprenticeships which use a variety of datasets and approaches indicate that there are a number of positive returns associated with the programme for individuals, employers and the economy as a whole. As discussed above, in terms of the returns to individuals it is necessary to use an appropriate comparator group in order to estimate returns that are a true reflection of the added value of Apprenticeships in terms of earnings and employability. The recent NAO report on adult Apprenticeships has highlighted the sensitivity of estimates of the returns to Apprenticeships to the underlying assumptions used in any analysis. Even considering methodological differences between recent studies, the evidence is in support of there being substantial positive gains associated with Apprenticeships.

6.8 Conclusion

One area that has received significant attention in a number of recent studies is that of progression beyond Apprenticeship onto further study, in further or higher education. Good Apprenticeships, it has been suggested, should involve training (both on and off-the-job) is that is not only relevant to apprentices' work tasks but should also provide a platform for further progression. Whilst the incidence of apprentices moving onto higher education (or other study) is found to be low some studies indicate many apprentices have ambitions to continue onto other learning (including HE study) and that a number of employers are also supportive of progression.

The research suggests that there is a need to ensure that there are opportunities for progression that are appropriate for apprentices (e.g. higher Apprenticeships, Foundation degrees) and that these (and other routes) are better sign-posted. Amongst Employers also there is not an outstanding level of awareness regarding progression opportunities for apprentices and although there are indications that employers support progression the level of support varies and many employers do not see the need for higher level skills within their organisations.

The wages and terms and conditions of employment for apprentices has also been examined in a number of recent studies. The survey of Apprenticeship pay carried out in 2007 and other studies (Lawton and Norris, 2011; Elston and James, 2011) have found variation across sectors in terms of average pay levels and in terms of employers views on pay (Lawton and Norris, 2011). A gender-related pay gap has also been found for apprentices which is considered to result from the over-representation of females in lower paying sectors (Elston and James, 2011). International comparisons have shown average levels of apprentice pay to be higher in England to be higher than that found elsewhere in Europe and other countries with well-established Apprenticeship systems (Ryan *et al.*, 2010; Steedman, 2010).

A number of recent studies have estimated the wage returns (and other returns) to apprentices (McIntosh, 2007; Patrignani and Conlon, 2011; Conlon *et al.*, 2011; NAO, 2012) Substantial wage returns have been found to be associated with completion of Apprenticeships, the magnitude of the returns is found to vary by sector and level as well as the estimates being sensitive to methodological differences. These studies also indicate a positive association between Apprenticeship training and the probability of being in employment.

Other studies have found significant returns to employers who train employees through Apprenticeship. The Net Benefits of Training Series has demonstrated positive returns to employer investment in Apprenticeship over the past 15 years and have found that employers can expect to recoup their investments in such training within a relatively short period of time post-completion, provided that apprentices stay with the company.

Various analyses of the returns to Apprenticeships which use a variety of datasets and approaches indicate that there are a number of positive returns associated with the programme for individuals, employers and the economy as a whole. The recent NAO report on adult Apprenticeships has highlighted the sensitivity of estimates of the returns to Apprenticeships to the underlying assumptions used in any analysis. Even considering methodological differences between recent studies, the evidence is in support of there being substantial positive gains associated with Apprenticeships for individuals, employers and the State.

The BIS-commissioned Evaluation of Apprenticeships reports⁸ consider, amongst a number of other issues, the overall impact of Apprenticeships. The survey of employers considers potential responses to increased fees and the analysis has considered the level of deadweight and the case for government intervention. The learner evaluation survey has looked at the incidence and quality of training within the Apprenticeship, levels of satisfaction, post-completion outcomes and progression onto higher level studies. The evaluation reports aim to: provide robust and current evidence on the impacts and quality of Apprenticeship; identify areas of the programme needing improvement; and develop a baseline for future research.

⁸ Subsequent to the writing of this review, these reports were published by BIS in May 2012. See: Hogarth, T. *et al* (2012) *Employer Investment in Apprenticeships and Workplace Learning: The Fifth Net Benefits of Training to Employers Study*, BIS Research Paper Number 67. London: BIS. May 2012. 196 pages. Available from: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/e/12-814-employer-investment-in-apprenticeships-fifth-net-benefits-study.pdf>
Vivian, D. *et al* (2012) *Evaluation of Apprenticeships: Learners*, BIS Research Paper Number 76. London: BIS/NAS. May 2012. 168 pages. Available from: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/e/12-812-evaluation-of-apprenticeships-learners.pdf>
Winterbotham, M. *et al* (2012) *Evaluation of Apprenticeships: Employers*, BIS Research Paper Number 77. London: BIS/NAS. May 2012. 107 pages. Available from: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/e/12-813-evaluation-of-apprenticeships-employers.pdf>

7. SECTOR-SPECIFIC AND INTERNATIONAL EVIDENCE

Key Findings

- Sector-specific analysis of Apprenticeship, including the benefits of and participation in the programme, can provide useful insights into the attitudes and needs of employers in a sector as well as areas for concern or further investigation which might be particular to a sector or might arise across a variety of sectors.
- There are a number of lessons to be learned from Apprenticeship systems in other countries, but whilst many consider the German system, for example, to be the 'gold standard', it is not simply a case of transplanting that system in the UK to improve Apprenticeships. The cultural and political context is important.
- England and the UK can still learn much from how the systems in other countries respond to change and challenges. The incidence of social partnerships and relatively long periods of stability in Apprenticeship policy in other countries are examples features which might prove beneficial.

7.1 Lantra (land-based and environmental sector)

CFE (2010) carried out an assessment of the suitability of Apprenticeship in the environmental and land-based sector for Lantra. This study looked at demand for Apprenticeship in the sector and how well current frameworks suited the sector. CFE found that there was relatively low level of awareness of Apprenticeships amongst employers in the sector (66 per cent of businesses were unaware of the programme), with the exception those in sub-sectors (veterinary nursing and farriery) where Apprenticeships formed a regulated entry route. Smaller employers (less than ten employees) were found to have the lowest awareness and were in general, not involved in Apprenticeships with such employers having concerns about providing employment and a full range of work experience to trainees.

Employer uptake of Apprenticeships was found to be 4 per cent overall in the sector. At the time of the study, there were 4,500 Apprenticeship starts per year in the sector. A higher percentage of employers with more than 50 employees (30 per cent) indicated that they were likely to recruit an apprentice in the next year than those who employed less than 10 people (14 per cent).

CFE also found that a significant proportion of employers (24 per cent) offered training similar to Apprenticeships but did not use the publicly funded programmes – though it is argued that the training in question should be classified as Apprenticeship. Employers felt that this alternative provision was allowed them to have greater influence over content and structure of training and allowed for a more flexible and tailored provision.

CFE made a number of recommendations on improving the frameworks, delivery and awareness of Apprenticeships in the sector. They argued that delivery needs to be flexible

with providers having a good understanding of the sectoral context and that employers in the sector want more industry-specific elements included in frameworks. The study also concluded that there needs to be a range of levels of Apprenticeship provision for all ages. Many jobs in the sector are only available to employees 18 years of age and older due to Health and Safety regulations and thus state funding for training of such workers is limited.

Lantra (2011) examined progression of veterinary nursing and animal-related Apprenticeships to higher education. They variation in the existence of admissions policy from Apprenticeships across providers and those who did have entry policy in place for those coming from Apprenticeships offered both higher education and further education course. Where there was a lack of entry policy this was attributed to Apprenticeships lacking grading and there being a lack of consistency between frameworks.

Less than one-third of apprentice employers in this sector were aware that their apprentices had progressed onto higher education though around 75 per cent of employers were aware of the possibility for such progression and 79 per cent were aware of career progression opportunities for apprentices. Whilst employers most commonly indicated that the skills that would be useful for their business that could be studied through higher education were business and management skills, apprentices were most interested in advanced Apprenticeship, equine and other technical topics and showed little demand for business and management studies. More than a quarter of apprentices indicated expected to study at a higher level after completion of their Apprenticeship. Around 46 per cent of apprentices considered higher education to be an option for the future but costs of this route were indicated as the main reason where apprentices did not consider it to be an option.

7.2 Construction

Abdel-Wahab *et al.* (2010) considered Levy-Grant Scheme (LGS) in the construction industry in the UK setting out arguments for and against continuation of the system. They observed that despite having the LGS in place, the construction industry continues to experience labour shortages and under-investment by employers in training activities compared to other sectors. The arguments in favour of the LGS presented by Abdel-Wahab *et al.* include:

- there are high levels of support from employers in the sector which saw the LGS in construction be retained when such systems have been abolished in most other sectors. Most employers in construction agree with the continuation of the LGS and feel that training levels would decline in the absence of the LGS;
- the LGS assists in delivering diverse training activities which largely reflect the range of employer needs in the sector;

- the LGS promotes equal access to support for all companies, regardless of size, and smaller companies also benefit from claiming training grants though they are exempt from paying the levy;
- grants incentives companies to train and can also be used to offset the costs of Apprenticeships.

The authors also presented arguments against the LGS in construction in the UK, including:

- despite the scheme being in place, problems such as skills and labour shortages persist and relatively low training levels persist;
- the LGS approach rely solely on monetary incentives to drive training activities when employers' training needs and attitudes towards the value of training are just as important in driving training activities. As a result of emphasising just the monetary aspects, the LGS is only a partial solution;
- the impact of the LGS on the performance of construction firms is uncertain as it is difficult to isolate the effect of training grants on companies' performance due to methodological constraints.

Abdel-Wahab *et al.* also emphasised that smaller companies could benefit more from the LGS than they currently do as they are at a disadvantage in terms of not having training infrastructure in place that larger employers are more likely to have. They also recommended that new types of training grants be considered, for example, productivity-based grants which are targeted to assist companies to enhance their productivity performance. They also argue that there is a need to evaluate the LGS in construction to ensure that the training being delivered is of high quality and that employers are gaining from the provision.

In the light of the shortcomings and persistent problems of skills shortages and low training levels in construction considered above, Abdel-Wahab (2011) reviewed issues related to Apprenticeship training in the sector and argued that given a poor training culture in the industry, there is a need to consider alternative means of providing Apprenticeship training without requiring high degrees of employer engagement. The diversity of sub-sectors and the skewed structure of employment towards SMEs in construction, along with the sector's cyclical nature contribute to relatively low levels of training. Abdel-Wahab argued that the number of Apprenticeships required in the industry should be based on the real needs and capacity of the sector rather than on arbitrary targets. Alternative approaches to the provision of Apprenticeship training presented by Abdel-Wahab include the use of Virtual Learning Environments (VLEs) which allow for practical experience without apprentices actually being on construction sites. He also argued that experienced workers and trade unions could participate more actively in Apprenticeship training with experienced workers

mentoring or adopting apprentices (with incentives for the experienced worker) and trade unions working collaboratively with employers to support Apprenticeship training.

7.3 Other Sector-Specific Research

Brockmann (2010) carried out a study of the learner biographies of sixteen retail and motor vehicle maintenance apprentices in Germany and England which explores the interrelationship of social structures and individual agency in identity formation over time and in particular learning environments. The paper reports mainly on the experience of the four English motor vehicle apprentices. The apprentices appear, on the basis of their experience of general schooling, 'developed a learner identity which includes rejecting a particular style of learning, that of academic study in a directive teaching and learning arrangement' (p. 71). The apprentices' rejection of academic style learning is often wrongly equated with a rejection of all learning, and certainly of theoretical knowledge. This misconception is reinforced both by 'the social identity of motor vehicle maintenance as a craft with little underpinning knowledge, and, crucially, by the current structure of vocational learning in England. The latter, Brockmann suggests, neglects educational development and learning while stressing assessment of narrowly-defined tasks. Echoing previous research (Torrance *et al.* 2005), the concern with testing through a rigid and time-consuming assessment regime seems to counter any possibility of engaging young people by arousing their curiosity, and promotes an instrumental approach to the qualification' (p.71). However, where being a mechanic was positively chosen the young people could have a sense that they could succeed in and through learning where this was linked to a wider range of learning experiences. Hence there is often a misalignment between the form of learning and particularly assessment often found in current Apprenticeship programmes and what is required to develop a growing sense of identity of becoming an experienced skilled worker. Brockmann's study indicated that identity can act as a powerful driver of more holistic learning and development where assessment itself is more holistic and synoptic.

7.4 Insights from Abroad

Whilst there is a range of published and on-going research related to Apprenticeships in other countries, the review here focuses on particular pieces of research that have at least considered England in relation to other countries with established Apprenticeship systems and where there are insights provided that might prove valuable in the English context.

One recent substantive piece of research looking further afield was commissioned by the UK CES (Vogler-Ludwig *et al.*, 2012. This report looked at international approaches to Apprenticeships (and intermediate level skills more generally). Vogler-Ludwig *et al.* compared the VET system in the UK to systems in Australia, Germany and the Netherlands while recognising that whilst it would not be possible to transform the UK system into a

replica of any of the approaches in these other countries, considering alternative systems could provide valuable lessons regarding the future development of the UK's intermediate VET system.

In their report, Vogler-Ludwig *et al.* summarised the structure of VET systems in the three comparator countries as follows:

- Germany – Apprenticeships comprise the core of Germany's intermediate VET system and it operates a dual system of Apprenticeship training, combining practical training in the workplace with theoretical training at vocational schools. Completion of Apprenticeship qualifies a person for entry into various manufacturing or commercial occupations.
- The Netherlands – the Dutch intermediate VET system is unique in its combination of predominately school-based training at full-time vocational schools and work-based Apprenticeship training at companies. These two pathways differ in the division of training between practical and theoretical lessons but upon completion both offer the same form of certificates and diplomas. Switching between occupations in the Netherlands is easier than in other countries, including Germany and the UK,
- Australia – The intermediate VET system in Australia is an output-oriented system in that the learning outputs are emphasised over the specific pathways to these outputs. The system is modularised which allows for attainment at various levels, for the completion of formal qualifications, single certified modules and courses without formal qualification. Group training organisations (similar to GTAs in the UK) are an important feature of the Australian Apprenticeship system.

Compared to all three of these systems, the authors report that the UK differs markedly in the degree of social partnership involved in the Apprenticeship programme and they argue that balancing the views of employers, employees and the State is necessary to ensure that both short- and long-term needs are met. Similarly, Bynner (2011) identified community commitment to ensuring that all young people achieve a successful transition to adult life, evidenced through social partnerships in local areas, as one of the main lessons to be learned from continental approaches to VET.

Despite differences between systems, there are lessons for the UK in how to deal with many of the challenges it (and systems in Australia, Germany, and the Netherlands) face. Vogler-Ludwig *et al.* noted that compared to the UK, the systems in the other three countries have been relatively stable for a decade or more which has enabled strong brand recognition as well as time for employers and learners to experience the returns to qualifications obtained in the system. This period of stability has also allowed IAG organisations to facilitate the navigation of employers and learners through the systems. Wolf (2011) noted that as the

labour market recognises qualifications that are stable and familiar which presents a challenge for the English system which has been, and remains, subject to much change.

Vogler-Ludwig *et al.* also note that there are rigorous standards with respect to what constitutes intermediate levels of skills training, and the definition of Apprenticeship, observed in Australia, Germany and the Netherlands. The authors take the view that public authorities need to organise the intermediate training system and to finance, at least, the generic elements of training whilst employers are important in producing the vocational skills for use in the workplace and can be reasonably expected to contribute to financing this more specific training. The Dutch system suggests that requiring financial contributions from employers does not inevitably decrease participation.

The study, which involved carrying out a number of qualitative case studies with employers and individuals in each country, drew out a number of lessons which could be applied to the UK context in order to improve the performance of the VET system (and Apprenticeships in particular).

Steedman (2010) reported that whilst there has been much improvement in Apprenticeship participation and completion rates in recent years, England's system does not compare well to other established systems of Apprenticeship in Europe and elsewhere. Just 11 in every 1,000 employees in England are apprentices compared to 39 in Australia, 40 in Germany and 43 in Switzerland.

Steedman compared Apprenticeships in eight countries – Australia, Austria, France, Germany, Ireland, Sweden and Switzerland – looking at the structure of systems, levels of employer engagement and learner volumes, duration of training and the content and structure Apprenticeships, amongst other aspects of the performance of Apprenticeships in each country.

The reluctance of employers to engage in the system in England, Steedman argued, is at least in part related to the cost as employers in England pay apprentices much more than employers in countries and employers do not receive any direct subsidies for Apprenticeships whereas in some other systems such subsidies are paid to employers (e.g. Australia). Other evidence however, suggests that a focus on financial incentives for encouraging employers to provide Apprenticeships (and other forms of training) is not a complete solution to the problem of low employer engagement as most employers also consider the need for certain skills and training in their organisation (Abdel-Wahab *et al.*, 2010). Even if fully subsidised, provision of training imparts some costs on the employer in terms of management and supervisory requirements and re-organisation of working times.

Participation of young people in the programme was also considered to be impeded by lack of good IAG and promotion of Apprenticeships (and other forms of vocational education) in

schools along with few options of progression from Apprenticeship onto higher education – two issues that, as discussed in the preceding sections, have captured much attention in recent studies. According to Steedman, in England (and France) there is reluctance shown in terms of providing prompting individuals to consider WBL and often little IAG is provided in relation to this. Other studies support this view (e.g. Bassot and Chant). The evidence concerned with progression routes (or lack thereof) is considerable (see section 4.6 above).

Brockman *et al.* (2011) also identified a number of areas where lessons could be learnt from the dual systems in Germany, Austria and Switzerland. These included:

- integration of different elements of the VET system and assessment of these; elements;
- collaborative negotiation of WBL VET programmes with employers, trade unions and educational institutions;
- the broad-based nature of VET in the dual system and the resulting qualifications which include a range of activities encompassed by an occupation as well as civic education elements;
- the three locations of learning/training – VET schools, training centres and the workplace; and,
- integration of school and work-based VET routes.

Again, it is important to consider the country-specific context (in relation to both the VET system and wider institutions and policy) when considering how far the features of other systems can be incorporated to the UK setting.

7.5 Conclusion

Recent reports on Apprenticeship have illustrated differing experiences of individuals and employers across different sectors of the economy with the returns to such training found to differ by sector (e.g. Conlon *et al.*, 2011) and participation rates of both individuals and employers vary by sector (e.g. UKCES, 2010; Shury *et al.*, 2011). Sector-specific studies highlight key areas of concern for different sectors as well as differences in approaches to training and funding training.

A number of studies discussed throughout this review present at least some differences between the Apprenticeship system in England (and the UK) and the systems operating in other countries. The aim of this review has been to highlight international studies which provide particular insights that can benefit Apprenticeships in England and the rest of the UK. Two substantial reports (Steedman, 2010; Vogler-Ludwig *et al.*, 2012) have been published recently. These provide analysis of various systems of Apprenticeships and draw out useful lessons. It is necessary, however to realise that the countries to which the UK is typically compared differ from the UK in a number of ways, not only in terms of the design

and operation of VET systems but also in terms of wider institutional and cultural settings. Such differences affect the degree to which insights from abroad can be useful for the UK.

8. FINAL COMMENTS

The Apprenticeship programme is one which has survived recent public spending reviews and has received considerable support from Governments across all parties. As an area of policy priority, it is fully expected that Apprenticeships will continue to gain interest and will be subject to further evaluation and study over the coming years.

The research reviewed here provides a number of results which support previous research findings such as, the existence of substantial returns to individuals and employers from Apprenticeships as well as barriers to participation for both employers and would-be apprentices. Also brought to the fore are areas of particular concern including the quality of Apprenticeships, relatively low rates of progression beyond Apprenticeships (and within the Apprenticeship programme), persistently low levels of employer engagement, and equality issues in terms of the participation of various groups of learners (e.g. females, BAME, LDD).

In drawing conclusions from the research that has been discussed here, it is important to bear in mind the assumptions underlying each study as well as the methodological approaches used which impact significantly on the overall findings. Whilst providing some interesting insights, care should be taken when considering research based on a small number of case studies, or in some instances, on just one or two employers. The evidence base has however expanded in the past two years and increasingly much of this evidence has been based on robust analysis of large datasets.

It is also important, in the context of Apprenticeships, to recognise that there is much variation between sectors – which is not necessarily a negative aspect but one that needs to be accommodated in any approach to analysing the outcomes associated with the programme. The latest research largely confirms that there is much heterogeneity within Apprenticeships in terms of engagement, returns and other outcomes as well as the features of various frameworks. It is necessary to bear this heterogeneity in mind when carrying out analysis of the programme and when interpreting the results of any study.

BIBLIOGRAPHY

- ABDEL-WAHAB, M. (2011) "Rethinking Apprenticeship Training in the British Construction Industry," *Journal of Vocational Education & Training*, iFirst, 10.
<http://www.tandfonline.com/doi/abs/10.1080/13636820.2011.622450>
- ADULT LEARNING INSPECTORATE. (2004). *Annual report of the Chief Inspector 2003/4*, Coventry, UK: Adult Learning Inspectorate.
- ANDERSON, K., M. BROPHY, B. MCNEIL, and D. POTTER (2010) "Opening the Door to Apprenticeships: Reaching Young People Who Are Disadvantaged and Disengaged from Apprenticeships - Paper 1: Setting the Scene," London: The Young Foundation (104 pages)
http://www.youngfoundation.org/files/images/Opening_the_door_to_Apprenticeships.pdf
- ANDERSON, K., M. BROPHY, B. MCNEIL, and H. WAGNER (2010) "Opening the Door to Apprenticeships: Reaching Young People Who Are Disadvantaged and Disengaged from Apprenticeships - Paper 2: Reflecting on Ways Forward," London: The Young Foundation, 104.
http://www.youngfoundation.org/files/images/OpeningDoors2_FINAL.pdf
- ASSOCIATION OF COLLEGES (2012) "Further Education Loans - Issues for Students, Apprentices, Colleges and Government," London: Association of Colleges (AoC), (20 pages) www.ioe.ac.uk/Study_Departments/Post14_TheRoleOfLoans.pdf
- BANKS, C. (2010) "Co-Investment in the Skills of the Future: A Report to Ministers in the Department for Business, Innovation and Skills," London: BIS (100 pages).
<http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/i/10-1025-independent-review-fees-co-funding-fe-england.pdf>
- BASSOT, B., and A. CHANT (2010) "From Neet to Net? The Challenges and Opportunities Involved in Providing Career Education, Information, Advice and Guidance in Relation to the 14-19 Agenda: A Critique," in *Occasional Paper - the Re-Emergence of Career: Challenges and Opportunities*, ed. by H. Reid. Kent: Faculty of Education, Canterbury Christ Church University. <http://www.canterbury.ac.uk/education/career-and-personal-development/docs/TheRe-emergenceofCareer.pdf>
- BIS (2011a) Changes to the Apprenticeship Programme. Equality Impact Assessment. London: Department for Business, Innovation and Skills, 25.
<http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/e/12-577-equality-impact-assessment-changes-Apprenticeship-programme.pdf>
- BIS (2011b) *Further Education – Level 3+ Loans*. Impact Assessment, London: Department for Business, Innovation and Skills. <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/f/11-1218-further-education-loans-impact-assessment.pdf>
- BIS (2011c) *New Challenges, New Chances: Net Steps in Implementing the Further Education Reform Programme – Further Education Loans*, London: Department for Business, Innovation and Skills. <http://dera.ioe.ac.uk/10124/1/11-1213-new-challenges-new-chances-implementing-further-education-reform.pdf>

- BIS (2012) Loans in Further Education – Monthly Briefing, April 2012. Available at:
<http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/12-p141a-loans-in-further-education-briefing-april-2012>
- BROCKMANN, M. (2010) " Identity and Apprenticeship: the case of English motor vehicle maintenance apprentices," *Journal of Vocational Education & Training*, 62 (10): 63-73. <http://www.tandfonline.com/doi/abs/10.1080/13636820903461354>
- BROCKMANN, M., L. CLARKE, G. HANF, P. MÉHAUT, A. WESTERHUIS, and C. WINCH (2010) *Knowledge, Skills, Competence in Europe: What's in a Qualification?* London: Routledge.
- BROCKMANN, M., L. CLARKE, and C. WINCH (2010) "The Apprenticeship Framework in England: A New Beginning or a Continuing Sham?," *Journal of Education and Work*, 23(16): 111-127 <http://www.tandfonline.com/doi/abs/10.1080/13639081003627439>
- BYNNER, J. (2011) "Youth transitions and Apprenticeships: a broader view of skill" in T. Dolphin and T. Lanning (eds.) *Rethinking Apprenticeships*, pp. 17-28. London: IPPR. http://www.ippr.org/images/media/files/publication/2011/11/Apprenticeships_Nov2011_8028.pdf
- CAMPBELL, J., E. THOMSON, and H. PAUTZ (2011) "Apprenticeship Training in England: Closing the Gap?," *Journal of Contemporary European Studies*, 19(13): 365-378. <http://www.ingentaconnect.com/content/routledg/cje/2011/00000019/00000003/art00005>
- CFE (2011) "Assessment of Current Provision for the Land-Based and Environmental Sector - England," Coventry: Lantra. (102 pages)
<http://www.lantra.co.uk/Downloads/Research/Research-reports/Assessment-of-Current-Provision-in-England-%282011%29.aspx>
- CHAPPELL, J. (2011) "Apprenticeships and Progression to Higher Education," London: Linking London Lifelong Learning Network.
http://www.bbk.ac.uk/linkinglondon/resources/qualifications-resources/Apprenticeships/pub_Feb2011_Apprenticeships_and_progression_to_Higher_Education.pdf
- CIPD (2005). Training and Development Survey 2005. London: Chartered Institute of Personnel and Development (unpublished results reported in Ryan, Gospel, and Lewis 2006). <http://www.cipd.co.uk/NR/rdonlyres/271CD424-507C-4E4A-99B6-1FAD80573E4A/0/traindevtsurvrept05.pdf>
- CIPD (2012) "Apprenticeships That Work: A guide for employers," London: CIPD.
<http://www.cipd.co.uk/NR/rdonlyres/86EA8E62-F078-4B3D-9B90-4BE6562E7E6A/0/5733ApprenticeshipGUIDEWEB.pdf>
- CLIFFORD, J., A. MANN, S. MASON, and C. THEOBALD (2011) "Assessing the Return on Investment, Evaluation and Impact of Creative Apprenticeships," London: Creative & Cultural Skills, (71 pages).
<http://www.ccskills.org.uk/LinkClick.aspx?fileticket=dGjgRbyP1x4%3D&tabid=36>
- CLIFFORD, J., A. MANN, S. MASON, and C. THEOBALD (2011) "Assessing the Return on Investment, Evaluation and Impact of the Young Apprenticeships Programme,"

London: Creative & Cultural Skills (106 pages)
<http://www.ccskills.org.uk/LinkClick.aspx?fileticket=MFD3LOxNo5E%3D&tabid=875>

CONLON, G., P. PATRIGNANI and J. CHAPMAN (2011) "Returns to Intermediate and Low Level Qualifications," BIS Research Paper Number 53. London: Department for Business, Innovation and Skills. <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/r/11-1282-returns-intermediate-and-low-level-vocational-qualifications.pdf> .

DAVEY, G., and A. FULLER (2010) "Hybrid Qualifications – Increasing the Value of Vocational Education and Training in the Context of Lifelong Learning. Country Report: England," Southampton: University of Southampton (99 pages)

DAVEY, G., and A. FULLER (2011) "Best of Both Worlds or Falling between Two Schools? The Case of Hybrid Qualifications in England," Southampton: University of Southampton (47 pages).

DIAMOND, A., A. JONES, and P. CASEY (2010) "Evaluation of the Apprenticeship Vacancies System," Leicester: CFE (69 pages).
<http://www.Apprenticeships.org.uk/About-Us/~media/Documents/NAS-Apprenticeship-Vacancies-Evaluation-Report-090410.ashx>

DIAMOND, A., C. SANCHEZ, S. NEAT, and S. BYSSHE (2010) "Offenders in Custody Apprenticeship Pilot Evaluation," Leicester: CFE. (44 pages)
http://www.cfe.org.uk/uploaded/files/CFE_Offenders%20in%20custody%20pilot%20evaluation.pdf

INSTITUTE OF DIRECTORS and CFE (2011) "Reforming the Skills System: Lessons Learned the Hard Way," London: CFE.
http://www.iod.com/mainwebsite/resources/document/reforming_the%20skills_system_lessons_learned_the_hard_way_jul11.pdf

DEARDEN, L. FITZSIMMONS, E. and WYNESS, G. (2010), The Impact of Higher Education Finance on University Participation in the UK. BIS Research Paper Number 11. London: BIS. <http://www.bis.gov.uk/assets/biscore/corporate/docs/i/10-1188-impact-finance-on-university-participation.pdf>

DOLPHIN, T., and T. LANNING (2011) *Rethinking Apprenticeships*. London: ippr.
http://www.ippr.org/images/media/files/publication/2011/11/Apprenticeships_Nov2011_8028.pdf

ELSTON, A., and L. JAMES (2011) "Apprentice Pay and Conditions: A Research Report for TUC/Unionlearn," Incomes Data Services / Thomson Reuters.
<http://www.unionlearn.org.uk/files/publications/documents/216.pdf>

EVANS, C., and A. DEAN (2011) "Apprenticeships: Delivering the Coalition's Vision (Alliance Briefing Paper)," South West Observatory, 34.
<http://www.swslim.org.uk/Downloads/SL2650.pdf>

EVANS, C., A. DEAN, and A. CREWS (2011) "Delivering Apprenticeships: The Challenges for the South West," Exeter: SLIM, Marchmont Observatory, University of Exeter (61 pages) <http://www.swslim.org.uk/Downloads/SL2649.pdf>

- EXLEY, S. (2011) "'On the Job' Training at Risk from Rule Change." FE news | Published in TES Newspaper on 4 February, 2011.
<http://www.tes.co.uk/article.aspx?storycode=6069301>
- FEDERATION, N. H. (2010) "Apprenticeships within the Housing Sector," London: National Housing Federation (47 pages) <http://www.Apprenticeships.org.uk/About-Us/~media/Documents/NationalHousingFederationReport-October2010.ashx>
- FILLIETTAZ, L. (2011) "Collective Guidance at Work: A Resource for Apprentices?," *Journal of Vocational Education & Training*, 63(19): 485-504.
<http://www.tandfonline.com/doi/abs/10.1080/13636820.2011.580359>
- FLETCHER, M. (2011) "Coping with the Costs of College: The Role of Saving and Loans in Financing Further Education," London: Institute of Education, (12 pages)
http://www.ioe.ac.uk/Study_Departments/Post14_TheRoleOfLoans.pdf
- FLETCHER, M. (2011) "Expanding Apprenticeships - Colleges Are Key to Employability," London: 157 Group (19 pages)
http://www.157group.co.uk/files/expanding_Apprenticeships.pdf
- FONG, B., and A. PHELPS (2008) "Apprenticeship Pay: 2007 Survey of Earnings by Sector," Department of Innovation Universities and Skills Research Report 08-05.
<https://www.education.gov.uk/publications/eOrderingDownload/DIUS-RR-08-05.pdf>
- FRONTIER ECONOMICS and IFS (IFS) (2011) "Reporting on Employment and Earnings Using Experimental Matched Data," BIS Research Paper Number 48. London: Department for Business Innovation and Skills. (248 pages)
<http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/r/11-1037-reporting-on-employment-earnings-experimental-matched-data>
- FUHRER, M., and J. SCHWERI (2010) "Two-Year Apprenticeships for Young People with Learning Difficulties: A Cost-Benefit Analysis for Training Firms," *Empirical Research in Vocational Education and Training*, 2(2): 107-125.
<http://www.ingentaconnect.com/content/sense/ervet/2010/00000002/00000002/art00002>
- FULLER, A., and G. DAVEY (2010) "Equality and Human Rights Commission Triennial Review: Education (Lifelong Learning) - Equality Groups and Apprenticeships," London: Equality and Human Rights Commission (39 pages).
http://www.equalityhumanrights.com/uploaded_files/triennial_review/triennial_review_Apprenticeship.pdf
- FULLER, A., J. TURBIN, and J. WINTRUP (2010) "Finding Their Way? Advanced Apprenticeship as a Route to HE," Southampton: University of Southampton (28 pages).
http://eprints.soton.ac.uk/192405/1/Finding_their_Way_omnibus_ISBN_9780854329168.pdf
- FULLER, A., and L. UNWIN (2010) "Knowledge Workers' as the New Apprentices: The Influence of Organisational Autonomy, Goals and Values on the Nurturing of Expertise," *Vocations and Learning*, 3, 19. <http://eprints.soton.ac.uk/167393/>

- FULLER, A., and L. UNWIN (2011) "Vocational Education in the Spotlight: Back to the Future for the UK's Coalition Government?," *London Review of Education*, 9(2): 191-204. <http://www.tandfonline.com/doi/abs/10.1080/14748460.2011.585879>
- GAMBIN, L., C. HASLICK, and T. HOGARTH (2010) "Recouping the Costs of Apprenticeship Training: Employer Case Study Evidence from England," *Empirical Research in Vocational Education and Training*, 2(2): 124-146. <http://www.ingentaconnect.com/content/sense/ervet/2010/00000002/00000002/art00003>
- GAMBIN, L., C. HASLICK, T. HOGARTH, P. RYAN and P. ELIAS (2011) Options study for the long-term evaluation of Apprenticeships. BIS Research Paper Number 56. London: Department for Business, Innovation and Skills. (132 pages) <http://www.bis.gov.uk/assets/biscore/higher-education/docs/o/11-1312-options-study-for-evaluation-of-Apprenticeships.pdf>
- GARRETT, R., M. CAMPBELL, and G. MASON (2010) "The Value of Skills: An Evidence Review," UKCES Evidence Report 22. London: UK Commission for Employment and Skills (185 pages) <http://www.ukces.org.uk/assets/ukces/docs/publications/evidence-report-22-the-value-of-skills-an-evidence-review.pdf>
- GOLDEN, S., L. O'DONNELL, and T. BENTON (2010) "Evaluation of the Young Apprenticeships Programme: Outcomes for Cohort 3," Coventry: YPLA (31 pages) https://www.education.gov.uk/publications/eOrderingDownload/Evaluation_of_the_Young_Apprenticeships_Programme.pdf
- GRINDROD, F. and I. MURRAY (2011) "Making quality count: the union view" in T. Dolphin and T. Lanning (eds.) *Rethinking Apprenticeships*, pp. 71-8. London: IPPR. http://www.ippr.org/images/media/files/publication/2011/11/Apprenticeships_Nov2011_8028.pdf
- The GUARDIAN (2010) 'BT receives 24,000 applications for 220 Apprenticeships', Available at: <http://www.guardian.co.uk/business/2010/aug/16/bt-Apprenticeships-record-applications>.
- GUILDS, C. (2011) "Building Business through Apprenticeships," London: City & Guilds (16 pages). http://www.million-extra.co.uk/downloads/BuildingBusiness_Apprenticeships_SummaryReport.pdf
- GUILE, D. (2011) "Apprenticeship as a Model of Vocational 'Formation' and 'Reformation': The Use of Foundation Degrees in the Aircraft Engineering Industry," *Journal of Vocational Education & Training*, 63(3): 451-464. <http://www.tandfonline.com/doi/abs/10.1080/13636820.2011.600835>
- HALL, G., H. JOSLIN, and J. WARD (2010) "Developing Higher Apprenticeships in England," York: Lifelong Learning Networks National Forum. <http://www.lifelonglearningnetworks.org.uk/uploads/document/717/developing-higher-Apprenticeships-in-england-13-may-2010.pdf>
- HASLICK, C., T. HOGARTH, J. PITCHER. And M. MAGUIRE (1997) *Modern Apprenticeships: Survey of employers*, London: The Stationery Office.

- HASLUCK, C. (2012) "Why Businesses Should Recruit Young People," Wath upon Dearne: UKCES. <http://www.ukces.org.uk/assets/ukces/docs/publications/why-businesses-should-recruit-young-people.pdf>
- HIGTON, J., K. KAUR-BALLAGAN, J. SHAH and K. MEDIEN *et al.* (2012) *Apprenticeship Pay Survey 2011*. BIS Research Paper Number 64. London: Department for Business, Innovation and Skills (166 pages). <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/a/12-p137-Apprenticeship-pay-survey-2011>
- HM GOVERNMENT (2011) "Building Engagement, Building Futures: Our Strategy to Maximise the Participation of 16-24 Year Olds in Education, Training and Work," London: HM Government (63 pages) <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/b/11-1452-building-engagement-building-futures-maximise-participation-16-24>
- HODGSON, A., and K. SPOURS (2010) "Vocational Qualifications and Progression to Higher Education: The Case of the 14-19 Diplomas in the English System," *Journal of Education and Work*, 23(2): 95-12. <http://www.tandfonline.com/doi/abs/10.1080/13639080903578619>
- HOGARTH, T., L. GAMBIN, and C. HASLUCK (2012a) "Apprenticeships in England: What Next?," *Journal of Vocational Education & Training*, 64(1): 41-55. <http://www.tandfonline.com/doi/abs/10.1080/13636820.2011.590221>
- HOGARTH, T., L. GAMBIN, M. WINTERBOTHAM *et al.* (2012b) *Employer Investment in Apprenticeships and Workplace Learning: The Fifth Net Benefits of Training to Employers Study*, BIS Research Paper Number 67. London: BIS. May 2012. 196 pages. Available from: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/e/12-814-employer-investment-in-apprenticeships-fifth-net-benefits-study.pdf>
- HOGARTH, T., L. GAMBIN, C. HASLUCK, M. DE HOYOS, and D. OWEN (2009) *Maximising Apprenticeship Completion Rates*, Coventry: Learning and Skills Council. <http://www.Apprenticeships.org.uk/About-Us/~media/Documents/Completions-Research-Final-Report.ashx>
- IFF RESEARCH(2011) "Prior Qualifications of Adult Apprentices 2009/2010," BIS Research Paper Number 33. London: Department for Business, Innovation and Skills. <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/p/11-910-prior-qualifications-of-adult-apprentices>
- IPSOS MORI (2011) "National Learner Satisfaction Survey: Apprentices Report," BIS Research Paper Number 19. London: Department for Business, Innovation and Skills. <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/n/11-710-nlss-apprentices-report.pdf>
- JAMES, S. (2010) "What Is Apprenticeship?," SKOPE Issues Paper 22. Cardiff: SKOPE, (4 pages). <http://www.skope.ox.ac.uk/sites/default/files/Issues%20paper22.pdf>
- JOSLIN, H.: "Advanced Apprentices Progressing to Higher Education: Case Studies from Lifelong Learning Networks," Lifelong Learning Networks National Forum.

- KARMEL, T., and J. MISKO (2009) "Apprenticeships and Traineeships in the Downturn," *NCVER Occasional Paper*, 27.
- KEWIN, J., T. HUGHES, T. FLETCHER, and J. SHEEN (2011) "The Road Less Travelled: Experiences of Employers That Support the Progression of Advanced Apprentices to Higher Education," Leicester: SSCLLN/CFE.
<http://www.cfe.org.uk/uploaded/files/110115CFERoadLessTravelledReport.pdf>
- KINNEAR, D. (2010) "Apprentices and Progression to Higher Education: Investigating Barriers, Building Aspirations," Bristol.
<http://www.lifelonglearningnetworks.org.uk/uploads/document/809/apprentices-and-progression-to-he.pdf>
- LANTRA (2010) "Apprenticeships in the UK Land-Based and Environmental Sector: Increasing Take up and Opportunity," Coventry: Lantra.
[http://www.lantra.co.uk/getattachment/b29b241e-3553-4994-b709-6f134e532d5c/Apprenticeship-in-the-UK-sector---increasing-up-take-\(August-2010\).aspx](http://www.lantra.co.uk/getattachment/b29b241e-3553-4994-b709-6f134e532d5c/Apprenticeship-in-the-UK-sector---increasing-up-take-(August-2010).aspx)
- LANTRA (2011) "Progression to Higher Education from Veterinary Nursing and Animal-Related Apprenticeships," Coventry: Lantra.
[http://www.lantra.co.uk/getattachment/d24af8fe-7b44-404b-a6ab-cbd63a4c29b0/Progression-to-HE-from-VN-Apprenticeships---Summary-\(Sept-2011\)-final.aspx](http://www.lantra.co.uk/getattachment/d24af8fe-7b44-404b-a6ab-cbd63a4c29b0/Progression-to-HE-from-VN-Apprenticeships---Summary-(Sept-2011)-final.aspx)
- LAWTON, K., and E. NORRIS (2010) "A Qualitative Study of Apprenticeship Pay: An Ippr Report to the Low Pay Commission," London: Low Pay Commission.
http://www.lowpay.gov.uk/lowpay/research/pdf/A_qualitative_study_of_Apprenticeship_pay.pdf
- LEE, J. (2012) "Length Matters as Apprenticeships Face Extension." FE News published in TES magazine. <http://www.tes.co.uk/article.aspx?storycode=6164848>
- LSIS (2011) "Employer Reference Group - Simplifying End-to-End Apprenticeship Processes for Employers," Coventry: Learning and Skills Improvement Service.
http://www.cbi.org.uk/media/1121626/lsis_simplifying_Apprenticeships.pdf
- LSN (2011) "Apprenticeships and Higher Education: Good Sound-Bites, Bad Policy Making," London: LSN.
<http://www.researchonline.org.uk/sds/search/download.do;jsessionid=B6BCE2A7F71CC17B91DA977704CFBFD8?ref=B20427>
- LUCAS, B., G. CLAXTON, and R. WEBSTER (2010) "Mind the Gap: Research and Reality in Practical and Vocational Education," London: Edge Foundation.
http://www.edge.co.uk/media/17030/mind_the_gap_-_research_and_reality_in_practical_and_vocational_education.pdf
- MASON, G., and K. BISHOP (2010) "Adult Training, Skills Updating and Recession in the UK: The Implications for Competitiveness and Social Inclusion," London: Centre for Learning and Life Chances in Knowledge Economics and Societies (60.pages).
<http://www.llakes.org/wp-content/uploads/2010/08/T.-Adult-Training-Skills-Updating-and-Recession.pdf>

- MCINTOSH, S., J. WENCHAO, and A. VIGNOLES (2011) "Firms' Engagement with the Apprenticeship Programme," Research Report DFE-RR180. Sheffield: CAYT.
<http://www.researchonline.org.uk/sds/search/download.do;jsessionid=713FD6DB22B B69A1A9C43FDCFD102F46?ref=B23579>
- MCINTOSH, S. (2007). A Cost Benefit Analysis of Apprenticeships and Other Vocational Qualifications". DFE-RR834. Sheffield: Department for Education.
<https://www.education.gov.uk/publications/eOrderingDownload/RR834.pdf>
- NAO (2012) "Adult Apprenticeships," London: National Audit Office.
http://www.nao.org.uk/publications/1012/adult_Apprenticeships.aspx
- NAO (2012) "Estimating Economic Benefits from Apprenticeships – Technical Paper," London: National Audit Office.
http://www.nao.org.uk/publications/1012/adult_Apprenticeships.aspx
- NICOLETTI, C., and R. BERTHOUD (2010) "The Role of Information, Advice and Guidance in Young People's Education and Employment Choices," DFE RR019. Essex: Department for Education.
<https://www.education.gov.uk/publications/eOrderingDownload/DFE-RR019.pdf>
- OFSTED (2010a) "Learning from the Best," Manchester: Ofsted.
<http://www.ofsted.gov.uk/resources/learning-best-examples-of-best-practice-providers-of-Apprenticeships-underperforming-vocational-area>
- OFSTED (2010b) "Twelve Outstanding Providers of Work-Based Learning," Manchester: Ofsted. <http://www.ofsted.gov.uk/resources/twelve-outstanding-providers-of-work-based-learning>
- OFSTED (2012) "Apprenticeships for young people: a good practice guide," Manchester: Ofsted. <http://www.ofsted.gov.uk/resources/apprenticeships-for-young-people>
- PAREY, M. (2010) "Vocational Schooling Versus Apprenticeship Training: Evidence from Vacancy Data," LSE Seminar Paper. <http://cep.lse.ac.uk/seminarpapers/09-03-12-MP.pdf>
- PATRIGNANI, P. and G. CONLON (2011) "The Long Term Effect of Vocational Qualifications on Labour Market Outcomes," BIS Research Paper Number 47. London: Department for Business, Innovation and Skills.
<http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/11-1035-long-term-effect-of-vocational-qualifications.pdf>
- PAYNE, J. (2011) "Measure for Measure: Towards a Measurement and Evaluation Framework for Skills Utilisation Policy in the UK," *Journal of Education and Work*, iFirst. <http://www.tandfonline.com/doi/abs/10.1080/13639080.2011.630658>
- PAYNE, J., and E. KEEP (2011) "One Step Forward, Two Steps Back? Skills Policy in England under the Coalition Government," SKOPE Research Paper 102. Cardiff: SKOPE. <http://www.skope.ox.ac.uk/sites/default/files/WP102.pdf>
- PFEIFER, H., G. SCHÖNFELD, and F. WENZELMANN (2011) "How Large Is the Firm-Specific Component of German Apprenticeship Training?," *Empirical Research in*

- Vocational Education and Training*, 3(2).
http://www.ervet.ch/seiten/abstracts/v3_2011/v3_issue2/article2.html
- RHODES, C., and A. MELLOWS-FACER (2011) Briefing Paper sn059997 "Apprenticeships and Small Businesses," London: House of Commons Library
<http://www.parliament.uk/briefing-papers/SN05997>
- RITCHIE, D. (2011) "External Experiential Learning Programmes for Today's Apprentices," *Industrial and Commercial Training*, 43(3):179-184.
<http://www.emeraldinsight.com/journals.htm?articleid=1918011>
- RYAN, P., K. WAGNER, S. TEUBER, and U. BACKES-GELLNER (2010) "Trainee Pay in Britain, Germany and Switzerland: Markets and Institutions," Cardiff: SKOPE.
http://www.skope.ox.ac.uk/sites/default/files/RP96_0.pdf
- SCTP (2010) "Building on the 4%: Is There a Market for Apprenticeship Progression in Sussex?," Sussex: Sussex Council of Training Providers.
<http://www.lifelonglearningnetworks.org.uk/uploads/document/812/building-on-the-4-is-there-a-market-for-apprenticeship-progression-in-sussex.pdf> .
- SHURY, J., D. VIVIAN, B. DAVIES and K. GORE (2011). Employer Perspectives Survey 2010. UKCES Evidence Report 25. Wath upon Dearne: UKCES.
<http://www.ukces.org.uk/assets/ukces/docs/publications/employer-perspectives-survey-2010.pdf>
- SKILLS FUNDING AGENCY(2010) "Apprenticeships: Funding Requirements 2010/11," Coventry: Skills Funding Agency. http://readingroom.lsc.gov.uk/SFA/Apprenticeship-funding-requirements-2010_11-v1.pdf
- SKILLS FUNDING AGENCY(2010) "Funding Rules 2012/13," Version 1. Coventry: Skills Funding Agency. http://readingroom.lsc.gov.uk/SFA/Funding_Rules_201213_-_Published_3_April_2012.pdf
- SMITH, P. (2010) "Teaching Assistant Apprentices? English TAs' Perspectives on Apprenticeships in Schools," *Journal of Vocational Education & Training*, 62(3): 367-380. <http://www.tandfonline.com/doi/abs/10.1080/13636820.2010.510250>
- SMITH, S., and H. JOSLIN (2011) "Apprentice Progression Tracking Research Project Report: Longitudinal Tracking of Advanced Level Apprentice Cohorts Progression into Higher Education 2005-06 to 2009-10," University of Greenwich.
http://www.gre.ac.uk/_data/assets/pdf_file/0003/590565/Progression_Tracking_Project_2011_d5648_web.pdf
- SQW (2012) "The Economic Value of Apprenticeships," London: City & Guilds.
<http://www.million-extra.co.uk/downloads/Economic%20Value%20of%20Apprenticeships%20Feb%202012.pdf>
- STEEDMAN, H. (2010) "The State of Apprenticeship in 2010: International Comparisons," London: Centre for Economic Performance (CEP).
<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," London: Centre for Economic Performance (CEP).
<http://cep.lse.ac.uk/pubs/download/pa013.pdf>
- TAYLOR, A., and S. FREEMAN (2011) "'Made in the Trade': Youth Attitudes toward Apprenticeship Certification," *Journal of Vocational Education & Training*, 63(3): 345-362. <http://www.tandfonline.com/doi/abs/10.1080/13636820.2011.570455>
- TU, T., C. LAMBERT, B. LEVER TAYLOR, C. LISTER and A. KLEIN (2011) "National Learner Satisfaction Survey: Apprentices Report," BIS Research Paper Number 19. London: Department for Business, Innovation and Skills.
<http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/n/11-710-nlss-apprentices-report.pdf>
- TURNER, R. (2011) "National Apprenticeship Service - Evaluation of the ATA/GTA Pilots," Leeds: York Consulting/NAS. <http://www.Apprenticeships.org.uk/Employers/Steps-to-make-it-happen/GTA-ATA/~media/Documents/NAS-ATA-GTA-EvaluationReport-March2011.ashx>
- UKCES (2010) The National Employer Skills Survey for England 2009: Main report. Wath upon Dearne: UKCES.
<http://www.ukces.org.uk/assets/ukces/docs/publications/evidence-report-23-ness-main-report-2009.pdf>
- UNWIN, L. and A. WELLINGTON (2001) "Young people's perspectives on education, training and employment: realising their potential," London: Kogan Page
- UVAC (2010) "Progression from Vocational and Applied Learning to Higher Education across the UK," Wath-upon-Deerne: UKCES, 97. <http://213.5.176.40/~uvacacuk/wp-content/uploads/2010/08/UKCES-Progression-Review-Final-PDF.pdf>
- VIVIAN, D., M. WINTERBOTHAM, L. GODWIN, S. MORRIS, T. HOGARTH and L. GAMBIN (2012) *Evaluation of Apprenticeships: Learners*, BIS Research Paper Number 76. London: BIS/NAS. May 2012. 168 pages. Available from:
<http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/e/12-812-evaluation-of-apprenticeships-learners.pdf>
- VOGLER-LUDWIG, K., GIERNALCZYK, H., STOCK, L. and HOGARTH, T. (2012) *International approaches to the development of intermediate level skills and apprenticeships*, Synthesis Report, UKCES Evidence Report 42. , Wath upon Dearne: UKCES. 69 pages. Available from:
<http://www.ukces.org.uk/assets/ukces/docs/publications/evidence-report-42-international-approaches-synthesis-report.pdf>
- WINTERBOTHAM, M., D. VIVIAN, C. HUCKLE, A. SKONE JAMES, T. HOGARTH, L. GAMBIN and C. HASLUCK (2012) *Evaluation of Apprenticeships: Employers*, BIS Research Paper Number 77. London: BIS/NAS. May 2012. 107 pages. Available from: <http://www.bis.gov.uk/assets/biscore/further-education-skills/docs/e/12-813-evaluation-of-apprenticeships-employers.pdf>
- WISEMAN, J., P. ROE, and E. PARRY (2011) "An Evaluation of the Apprentice Grant for Employers (AGE) Programme," Birmingham: BMG Research.
<http://www.Apprenticeships.org.uk/About-Us/~media/Documents/NAS-AGEEvaluationFinal-May2011.ashx>

- WOLF, A. (2011) "Review of Vocational Education - the Wolf Report," London: Department for Education.
<https://www.education.gov.uk/publications/eOrderingDownload/The%20Wolf%20Report.pdf>
- WOLTER, S. C., and P. RYAN (2011) "Apprenticeship," in *Handbook of the Economics of Education*, ed. by E. Hanushek, S. Machin, and L. Woessmann: Elsevier, 521-276.
- YOUNG, M. (2011) "National Vocational Qualifications in the United Kingdom: Their Origins and Legacy," *Journal of Education and Work*, 24(3-4): 259-282.
<http://www.tandfonline.com/doi/abs/10.1080/13639080.2011.584686>