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Progression of Apprentices to Higher Education – Cohort Update

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Contents

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Executive summary

This report presents the findings of research undertaken for the Department for Business, Innovation and Skills (BIS) into the progression to higher education of advanced level apprentices over a seven year period. This is part of a longitudinal study whose first results were published in BIS research Paper 107 (Joslin & Smith, 2013) and this report provides an update on those findings for six cohorts of advanced level apprentices who had completed their framework. The research captures the complex nature of apprenticeship progression and reports on progression to higher education in both colleges and universities.

The research findings are based on the matching of ILR (Individualised Learner Record) datasets with HESA (Higher Education Statistics Agency) datasets between the years 2005-06 and 2011-12. They provide a detailed analysis of the nature of the progression of apprentices, trends in progression rates over time and highlight the contribution made by FE Colleges in delivering the sort of higher education to which many apprentices progress. The matched records contain demographic information about the apprentices such as gender, age and domicile, and also data about where they progressed from and where they progressed to, hence there are a wide set of variables that can be compared and this report provides a selection. Each of the findings raises interesting questions that may require further analysis of the data.

The findings published in this report provide an overall picture of apprenticeship progression at this point in time. The research project is longitudinal and the aim is to continue repeating the matching year on year to provide ever richer sets of data tracking the progression flows of this important group of part-time work-based learners.

The key results refer to different types of apprenticeship providers and also to the different ways in which higher education is funded. For the sake of clarity, explanations are given here:

Apprenticeship provider types

Provider of advanced level apprenticeships	**Further description – each of these provider types contract with the Skills Funding Agency for the provision of Apprenticeships.**
Private Training Providers	Private training companies who deliver a range of work based training programmes including apprenticeships.
Further Education Colleges	Further education and tertiary colleges funded by the Skills Funding Agency and/or via HEFCE for prescribed higher education provision. Colleges deliver full and part-time programmes including apprenticeships.
Businesses (Direct Grant)	Large private businesses that deliver apprenticeships
Public Sector	For example, Local Authorities, Government Departments and Hospitals who co-ordinate and deliver apprenticeships.
Other	Charities and associations who co-ordinate and deliver apprenticeships.

Higher education funding types

Type	Funding agency	Delivered in
Prescribed Higher Education	Higher Education Funding Agency	Universities and Further Education Colleges (prescribed higher education or higher education in FE)
Non-Prescribed Higher Education	Skills Funding Agency (SFA) and previously the Learning and Skills Council (LSC)	Further Education Colleges

The report analyses the results of tracking five cohorts of apprentices from 2005-06 to 2009-10 who progressed into higher education between 2005-06 and 2011-12. To capture the complex nature of apprentice progression behaviour, the *tracked cohorts* in this study have been derived in a particular way (see section 1.4 on Methodology page 17) and numbers do not match directly across to the Statistical First Release (SFR) figures published by The Data Service.

Key results

- **18.8% of the 2005-06 tracked apprentice cohort progressed to higher education when tracked for a total of seven years**. 11.7% progressed immediately in the three years following the start of their apprenticeship. (Table 3, page 22) This rate of progression is an improvement on the rate of 6% found in a study by HEFCE (HEFCE, 2009) and an increase on the seven year rate of 15.4% found for the 2004-05 cohort in the previous study in this series (Joslin & Smith, 2013).

- Five cohorts between 2005-06 and 2009-10 were tracked for three years allowing like for like trend analysis. **The total numbers of apprentices progressing to higher education over the three years increased by 1,200 entrants** from 3,895 for the 2005-06 to 5,095 for the 2009-10 cohort. (Table 2, page 21).

- **However the research also shows that the three year progression *rate* has dipped over the five cohort years from 11.7% in 2005-06 to 9.5% in 2009-10. This reduction is influenced by the significant increase in the numbers of apprentices aged 25+ who progress at a much lower rate (5.3%) than 17-19 year olds (12.1%) within the timescale.** In fact, progression rates for the 17-19 year group have remained fairly stable with only a small percentage point drop (-0.8%) but the 25+ age group has seen a higher drop (-3.8% points). (Table 12, page 32).

- **Between 2005-09 and 2008-09 a higher proportion of those who progressed went on to study higher education programmes in colleges than to university**. **However, this changed for the 2009-10 cohort where a higher proportion of those who progressed went to a university than to a college.** (Figure 2, page 23).

- **The proportion of advanced level apprentices that enter higher education on a full-time basis has increased year on year. Those progressing to part-time higher education dropped from 79% for the 2005-06 cohort to 65.6% for the 2009-10 cohort.** (Figure 5, page 39).

- **There are variances in the higher education mode of study at framework level** where detailed analysis of the 2005-06 cohort showed for example that 67% of Sporting Excellence students study higher education full-time but 97% of Accountancy apprentices study higher education part-time. (Table 29, page 52).

- **52% of the 2009-10 advanced level apprentice cohort had previously been intermediate apprentices** (Table 10, page 29) **and 7% of these went on to higher education.** (Figure 3, page 30).

- **64% of advanced level apprentices who progressed to higher education had done so within three years of starting their advanced level apprenticeship** but timing of entry varies according to the type of higher education and age. (Table 26, page 47).

- **Timing of entry analysis shows significant differences in patterns of progression** where a higher proportion of females enter later than males and students entering prescribed higher education programmes are more likely to enter higher education later than those who go onto non-prescribed higher education programmes. (Figure 10, page 55 and Table 26, page 47).

Significant findings for colleges and universities

- Colleges and universities may find of interest what is revealed in this report about the behaviour and characteristics of this increasing volume of part-time learners. They represent an important but comparatively under-researched constituency about whom more needs to be understood before their progression rates can be improved significantly. In the context of the large reduction of part-time higher education learners in 2011 and 2012, this study identifies some important areas for further analysis including age, gender and framework studied as well as questions around the supply of part-time higher education programmes.

- **Historically colleges delivered proportionally more higher education to the advanced level apprentice cohort who progressed than universities, but that changed for the last tracked cohort in 2009-10 when universities delivered proportionally more than colleges**. (Figure 2, page 23).

- **Whereas 79% of the first tracked cohort in 2005-06 went onto part-time study in higher education this had decreased to 66% in 2009-10**, an indication that more advanced level apprentices are choosing to make a life change and progress to education on a full-time basis. (Figure 5, page 39).

- **Between 2005-06 and 2009-10, the number of apprentices progressing to *Other Undergraduate* Courses dropped by -35% whilst the number of first degree and foundation degree students increased (+204% and +102% respectively**). This however reflects the focus on increasing foundation degree numbers during the period and the subsequent reduction in the supply of higher national certificates (within *Other Undergraduate* group of qualifications). (Table 18, page 38).

- **The progression rate of advanced level apprentices registered with FE providers (2005-06 cohort tracked for seven years) was 19%.** Of these 49% went to university, 41% to higher education in FE and 10% to non-prescribed higher education. (Table 30, page 53).

- **Higher education course types vary at framework level** so while 44% of Customer Service advanced level apprentices who progressed went onto study a First Degree, only 12% of Construction advanced level apprentices went onto this level of study (most Construction apprentices go onto OUG study, particularly HNC). Over half of those on a Children's Care Learning and Development framework went onto a Foundation Degree. (Table 31, page 54).

Significant findings for different apprenticeship providers

- There were significant differences in the progression rates of apprentices based on their provider type. Demographic, framework, age and regional factors might all throw light on the figures as well as more qualitative research that might look at expectations.

- **The numbers of advanced level apprentices from all provider types, except those from the *Other* group (e.g. charities) increased.** Businesses (Direct Grant), FE Colleges and Private Training Providers all saw a particularly high growth in numbers between the 2005-06 and 2009-10 cohort of advanced level apprentices. (Table 8, page 27).

- **The 2005-06 cohort in the Public Sector had highest rate of higher education progression by provider at 20% but this had decreased significantly to 11% for the 2009-10 cohort.** The 2005-06 FE college cohort had a progression rate of 13%, and this also decreased but only slightly, whereas the 2009-10 cohort had a rate of 12%. (Table 17, page 37).

- **The majority of apprentices from the Public Sector who progress, go on to higher education at university. In comparison, FE college apprentices are more likely to remain in FE colleges for their higher education to study both non-prescribed higher education and higher education in FE.** (Table 30, page 53).

Regional findings

- While the advanced level apprentice tracked population has increased in every government office region in England, **London had the highest increase where the population nearly doubled although this was from a low start**. (Table 5, page 25).

- There are significant differences in the progression rates by region. **The 2005-06 cohort in the North East had the highest immediate progression rate to higher education at 17%** but the progression rate for North East advanced level apprentices also saw the largest decrease where the rate fell to 10.4% for the 2009-10 cohort. (Table 13, page 33).

- **London was one of the few regions to see an increase in higher education progression between 2005-06 and 2009-10 at 3 percentage points where most regions saw a decrease**. (Table 13, page 33).

Sectoral findings

- **Higher education progression rates at framework level vary significantly and there does not appear to be a positive correlation between the population of the apprentice cohort and higher education progression**. Two frameworks: Engineering and Electrotechnical each make up over 10% of the total advanced level apprentice 2005-06 cohort. Their higher education progression rates are entirely different though with around 37% of Engineering apprentices entering higher education compared to just 1% of Electrotechnical apprentices. (Table 28, page 50).

- **Frameworks also differ in terms of higher education delivery**. For example, 83% of apprentices who progressed from a Hospitality and Catering framework went onto higher education in a university but this compares to just 44% of Vehicle Maintenance and Repair apprentices. (Table 28, page 50).

- **At framework level, there have been clear changes in the progression rates across the tracked cohorts.** Engineering higher education progression rates have dropped significantly as have Health & Social Care rates. Meanwhile, Sporting Excellence and Accountancy higher education progression rates have increased. (Table 15, page 36).

- **There is no specific correlation between higher advanced level apprentice numbers and higher education progression at framework level. Despite the large increase in the number of Health and Social Care apprentices, the higher education progression rate dropped considerably. In contrast, there was both a drop in the number of Engineering advanced level apprentices and a drop in higher education progression.** (Table 6, page 26, Table 15, page 36).

Demographic findings

Age

- 5 cohorts between 2005-06 and 2009-10 were tracked for three years allowing like for like trend analysis. The 3 year progression rate for the 2005-06 cohort was 12.1% and this decreased to 9.4% for the 2009-10 cohort. **The higher education progression rate of 17-19 year olds only dropped slightly** but there was a higher percentage point drop with 25+ apprentices. The overall progression rate reduction is clearly influenced by the **significant increase in 25+ numbers who progress at a much lower rate than 17-19 year olds.** (Figure 2, page 23).

- The age make-up of the advanced level apprentice tracked population has changed significantly across the five cohorts. **In 2005-06 there were around 200 aged 25+ (equal numbers of males and females) and this increased to 12,000 in 2009-10 with many more females than males.** (Table 4, page 25).

Gender

- **A comparison between the 2005-06 and 2009-10 cohorts revealed that the female advanced level apprentice tracked population doubled but the male tracked population increased by only 62%. Young male apprentice numbers only increased by +3% compared to +48% for young females.** (Table 4, page 25).

- It is also the case that **the progression rate for female advanced level apprentices has decreased at a slightly higher rate than for males.** (Table 14, page 35).

- **Females were more likely to study to progress 4-7 years from the start of their apprenticeship than males and females were also more likely to go on to full-time higher education study than males.** (Figure 10, page 55).

Domicile and deprivation

- **Higher education progression rates at POLAR3 group level are more or less similar where Q1 apprentices are slightly less likely than Q5 students to progress to higher education.** (Table 16, page 37).

- 22% of advanced level apprentices who entered HE were classified as POLAR2 Q1 and 24% POLAR2 Q2. In comparison, a HEFCE pilot study of characteristics of England local areas, 8% of all entrants were classified as POLAR2 Q1 and 15% POLAR2 Q2. Furthermore, an analysis of young UCAS accepted applicants in 2011 showed that only 11% were classified as POLAR2 Q1 and 16% Q2. **This provides evidence that the advanced level apprentice higher education entrant population has a higher proportion of educationally deprived learners (POLAR2 quintile 1 and 2) than the general higher education population.** (Table 32, page 56).

- **There are differences in higher education level of study by POLAR3 group.** 21% of 2005-06 apprentices who live in areas with very low higher education participation (POLAR 3 Q1) went onto Level 4 NVQs and this compares to just 16% if Q5 apprentices who progressed. (Table 33, page 57).

- **There are differences in the delivery type of higher education courses studied by disadvantaged and advantaged apprentices.** A higher proportion of advantaged students study courses at university than disadvantaged students (57% vs 52%). (Figure 12 page 59) .

Higher apprenticeships

- This study was able to capture in the ILR flagged higher apprentices for 2008-09 and 2009-10. It was therefore able to pick up some of the early numbers and characteristics of these cohorts which at the time only covered a few frameworks. It is important to add a note of caution in these results as they were dominated by one framework which has skewed the results. The section is included, however, to stand as a marker or benchmark for future studies in this longitudinal research that will take in the widespread development of the higher apprenticeship frameworks following the publication of the SASE in 2011 (BIS, 2011), the implementation of the Richards review (BIS, 2013) and the new guidance for Trailblazers (BIS, 2014).

- **The number of advanced level apprentices progressing on to Higher Apprenticeships increased from 960 to 1,200 between 2008-09 and 2009-10 with a progression rate for the 2009-10 cohort at 2.2%, slightly higher than the 2.0% rate for 2008-09 apprentices.** (Table 21, page 42).
- **Between 2008-09 and 2009-10, 98% of higher apprentices were on the Accountancy framework and this skews the results at present.** (Table 23, page 43). The investment in higher apprenticeships from 2012 onwards will change this. In 2009-10 there were only five higher apprenticeship frameworks (Engineering Technology, ICT, Accountancy, Purchasing and Supply and Contact Centres). In 2014 there are now 28 with a further 14 in development (NAS, 2013).

- **The North West, the South West and the East Midlands had the highest progression rates to Higher Apprenticeships** at around 3%. London and the South East had the lowest at around 1%. (Table 25, page 44).

1. Introduction

This report presents the findings of research undertaken for the Department for Business, Innovation and Skills (BIS) into the progression to higher education of advanced level apprentices. It updates the findings of an earlier apprenticeship progression tracking study published in BIS Research Paper 107 (Joslin & Smith, 2013) and provides additional information on the complex nature of the progression of apprentices and the institutions apprentices attend to study higher education. Higher education progression is explored in terms of gender, age, apprenticeship framework, student domicile and higher education qualification. A geo-demographic profile is also provided using the home postcode of the apprentice and this helps to explore the mobility of advanced level apprentices classified as disadvantaged. The study also looks at the progression of apprentices at Level 2 to advanced level apprentices at Level 3, providing an insight into apprentice pathways from Level 2, through Level 3 and onto higher education.

The findings of this research are derived from matching Individualised Learner Record (ILR) data about apprentices with Higher Education Statistical Agency (HESA) data which holds data about learners in higher education. It matches cohorts of advanced level apprentices for each year between 2005-06 to 2009-10 entering higher education for the seven years between 2005-06 and 2011-12. Since the ILR holds data about non-prescribed higher education, it also provides part of the progression data captured in this study. The methodology is examined further in section 1.4.

1.1 Structure of the report

Introduction – this provides the context for the research, situating it within the policy framework and relating it to previous research on apprenticeship progression. It states the aims and objectives of the research and provides a background to the methodology used.

Progression of apprentices to higher education – headline figures - Summary tables are presented with the headline figures for apprenticeship progression tracked over the timeframe of this research with breakdowns into colleges and universities.

Characteristics of the advanced level apprentice cohort – in this research a number of aspects of the cohort were analysed including:

- cohort population and features across years
- the rate and pattern of progression of intermediate apprentices
- previous experience of higher education

Trends in the progression of apprentices 2005-06 – 2009-10 – this section looks at trends for five cohorts of apprentices which can all have progression rates compared over a three year period. It looks at:

- changes in three year progression rates
- trends by region
- trends by gender
- changes in where higher education is delivered

- trends based on the POLAR 3 classification of higher education participation

Analysis of two years progression to higher apprenticeships (2008 and 2009 starts) - this section tracks the advanced level apprentice cohort through to higher apprenticeship datasets. It examines:

- progression rates of two cohorts: 2008-09 and 2009-10
- timing of progression
- framework level progression

Detailed analysis of apprentice progression based on the 2005-06 cohort – which has been tracked over seven years. This section looks in at:

- progression information by age
- timing of progression
- regional analysis
- framework analysis
- analysis of advanced level apprentice providers
- type of higher education provision and mode of delivery
- gender analysis
- disadvantaged profile and progression
- higher education subject areas
- breakdown of advanced level apprentices who progress to full-time higher education
- higher education institutions progressed to

Conclusions – summarising the key messages from the research.

1.2 Context of the research

1.2.1 Policy context

In New Challenges, New Chances (BIS, 2011) the government laid out its intention to provide a "ladder of opportunity" through apprenticeships to "clear and flexible progression routes to Higher Vocational Education". It has demonstrated its intentions practically with the Higher Apprenticeship Fund providing £25 million to boost the development of 10,000 higher apprenticeship places within four years. More recently in the Chancellor's Autumn Statement in 2013, £40 million has been committed to increase the number of people starting higher apprenticeships by 20,000.

This research shows that this is much needed given that even with a progression rate of 18.8% over seven years, apprentices do not match the rates of other vocational learners at 40% (HEFCE, 2007) or A level learners at 90% (Carter, 2009). Comparing this figure with the aspirational figure given by the National Apprenticeship Service of 50% of advanced level apprentices showing "interest in pursuing a degree-level equivalent course" (NAS, 2011) there is clearly a way to go before there is more equity between the progression rates of apprentices and other full-time vocational and A level learners.

In this report there are some early findings about progression to higher apprenticeships. The years covered were prior to the publication of the Specification for Apprenticeship

Standards (SASE) that included higher apprenticeships for the first time (BIS, 2011). They were the trailblazers overwhelmingly dominated by Accountancy but also including Engineering and IT. The rapid development of higher apprenticeships will play an important role in providing flexible, part-time and work-based higher education opportunities. The findings in this research project, by identifying the progression behaviour of existing apprentices, can also shed a light on what other sorts of provision needs to be developed to maximise their opportunities for progression.

The phrase "Higher Vocational Education", used in New Challenges, New Chances (BIS, 2011) to describe the whole range of higher education found in colleges, has been noted in a recent study of higher education in further education colleges undertaken for BIS (Parry, Callender, Scott, & Temple, 2012) and following consultation with AOC (Association of Colleges) members, it was agreed to include a breakdown along these lines for the first time in this report. Higher Vocational Education has been found to be the destination for many apprentices. Using it brings together the complex range of higher education offered by colleges and for the first time expresses their contribution on a like for like basis with universities.

Parry et al (Parry, Callender, Scott, & Temple, 2012), discuss the way in which college delivery of higher education has been affected by conflicting policy moves stemming from the two key funding councils (the Skills Funding Agency (previously LSC) and HEFCE). They also show that during the period this research covers, HNCs and HNDs, which had hitherto been the dominant higher education offer in colleges, were being eclipsed by the expansion of foundation degrees. One effect of this is thought to lie behind the reduction in progression by engineering apprentices who traditionally had progressed onto HNCs. They also show that despite the LSC having aspirations in 2006 for a strategic role in higher education, due to the fact that non-prescribed higher education was discretionary and was subject to local variation and cuts, the numbers studying non-prescribed higher education fell. The recent reinvention of a more unified higher education role for colleges embraced within the title of "Higher Vocational Education" brings together both their non-prescribed and prescribed higher education offer in a name, but it won't be until they appear side by side in college prospectuses that there will seem to be parity. Apprentices progress onto higher education covered by both funding streams and because it shows trends over the past six years, the data derived from this research can provide indications of where policy changes have affected progression flows.

This longitudinal research project aims to establish benchmarks on an annual basis and it will illuminate the impact of policies such as those which have provided the opportunity for colleges to develop their provision of higher education including their ability to bid for direct numbers and others like the increase in higher education fees and the provision of fee loans for part-time students. These measures, along with the expanding delivery of higher apprenticeships by colleges will affect the higher education landscape for apprentices and future tracking could reflect the impact of this.

1.2.2 Research context

Previous research

There is previous data available which sketches a broad picture of, and a concern about, the progression of apprentices into higher education. Research carried out by UVAC in 2005 on apprenticeship progression (Anderson and Hemsworth, 2005) suggested that

progression from advanced level apprenticeships to higher education was poor. More recently, the Skills Commission's inquiry into apprenticeships (Skills Commission, 2009) and HEFCE's report on apprenticeship progression (HEFCE, 2009) indicate that this situation remained largely unchanged. This was confirmed in the UKCES report on vocational progression (UKCES, 2010) where the rate of progression of apprentices quoted was 6%. As previously mentioned, this compares with the 40% progression rate of level three vocational learners (HEFCE, 2007) and the 90% progression by A level learners (Carter, 2009).

In the report by the Skills Commission (Skills Commission, 2009), it was acknowledged that there was a need for a new method of progression tracking to fill an information gap. A new method to provide "valuable data on former apprentices progressing into advanced further education, such as HNDs and foundation degrees, about whom little is also known" (P.43). The report recommended that:

> "The Government should commission systematic research enabling it to monitor former apprentices who progress to higher education and advanced further education, and those former apprentices who have already progressed. A study should be built up year on year until the Unique Learner Number starts to produce informative data." (Page14)

This was further underlined by the UK Commission for Employment and Skills (UKCES, 2010) when they said:

> "The lack of data and monitoring arrangements to track the progression of those pursuing applied and vocational learning beyond level 3-SCQF level 6 is a major deficiency in current management information systems. Robust and comprehensive data will enable the extent and nature of the issues to be more fully assessed and enable measures taken to address them to be more accurately targeted". (Page 60)

In the latest report of the Independent Reviewer on Social Mobility and Child Poverty (Social Mobility and Child Poverty Commission, 2013), Alan Milburn discusses the need for clear information about vocational qualifications including apprenticeships. He says:

> "The Government should set itself a clear target for increasing the proportion of apprentices who enter higher education and universities should set out how they plan to accept more students who have completed apprenticeships onto their courses" (Page 54)

With the increasing numbers of advanced level apprentices, it is important to assess the level of participation in higher education of this group of learners and how this compares to other groups of learners. Furthermore, as the number of advanced level apprentices increases, it is necessary to explore whether progression to higher education is maintained, and indeed increased, in line with trends over the period in the expansion of overall higher education participation.

A new perspective on apprentice progression

This research looks at progression from the point when an advanced level apprentice starts their framework (rather than when they end their apprenticeship). In consequence, the results include those students who enter higher education in the same year as they are finishing their apprenticeship (and not just for the years following completion of their apprenticeship). This is an important change to the methodology of tracking apprentices as it takes into account the roll-on, roll-off nature of apprenticeships where there is no such thing as an academic year. In addition to this change in methodology, this study identifies first time entrants to higher education by interrogating higher education datasets from

2002-03 to see whether an entrant had previous higher education experience. It therefore provides a rigorous examination of higher education progression both generally and for first time entrants to higher education.

This tracking study follows advanced level apprentice cohorts starting apprenticeships in the years 2005-06 to 2010-11 and entering higher education between the years 2005-06 and 2011-12. Longitudinal tracking helps to show the trajectory of advanced level apprentices over time and recognises that the progression patterns of work based learners are different from non-work-based learners entering higher education. It presents data to show that some advanced level apprentices already have prior experience of Higher Education before they start their apprenticeship. By exploring timing of higher education entry, the study examines the extent to which students enter higher education immediately or some time after their apprenticeship.

In the BIS research study "Prior Qualifications of Adult Apprentices 2009-10" (BIS, 2011) it was found that around a half of Level 3 apprentices had already studied at this level before. The inference is that many advanced level apprentices may already have achieved the necessary qualifications to enter a higher education programme, though perhaps not in the subject of their choice. In this report, therefore, prior entry to higher education, as well as higher education progression of advanced level apprentices is explored, examining to what extent advanced level apprentices may already have entered higher education (but not necessarily completed or achieved) before commencing an apprenticeship.

The report disaggregates advanced level apprentices into two groups: those who had already entered higher education before starting an apprenticeship and those who are first time entrants to higher education. In this sense, the study increases our understanding of the complex nature of advanced level apprentices and higher education entry and its findings show that the progression of advanced level apprentices into higher education is in many ways different to other groups of students; especially those students who are not progressing from work-based learning environments.

As a study of the progression of apprentices, this research can also be seen as a study of the progression to higher education of a very large sample of part-time work-based learners aged 18+. Not all part-time work-based learners are apprentices, but at level three, advanced level apprentices make up a large and increasing proportion of them and the research show that 78% of them who go on to study higher education do so part-time. This study therefore provides useful intelligence for all institutions offering higher education about the nature of the learning experiences required by these sorts of learners. In a recent BIS research report on part-time higher education (Pollard, Newton, & Hillage, 2012), the authors look at what constitutes part-time higher education and distinguish between part-time integrated with full-time and part-time as separate free-standing provision. The latter model, which characterises the Open University offer and that of institutions like Birkbeck, University of London is also what characterises the part-time offer in FE Colleges. They have a tradition of providing day-release, evening and Saturday provision for people in work and significantly they also have a tradition of recognising and assessing work-based competence. This phase of the research into the progression to higher education of apprentices does not shed useful light on the large drop-off in part-time higher education students from 2011 onwards but a further update of the longitudinal series will be able to.

This report provides an overview that will often pose new questions as it attempts to answer others. It has already been said that the data provides the opportunity for much more in-depth and specific analysis than is published in this report and more can be learned from it about the progression behaviour of these learners from a sectoral, regional, demographic and institutional perspective. An example of a more detailed regional drill down can be found in a report based on the 2013 data sets on apprenticeship progression in London (Joslin & Smith, 2013b). Also recent research by Ipsos MORI evaluating apprenticeships from both learner and employer perspectives (Ipsos MORI, 2014) and (Ipsos MORI, 2014a) provides very useful contextual information about progression. It shows, for example that apprentices are more likely to view their apprenticeship as a route to a career in what they call the "older" frameworks like Engineering and Construction, and that these frameworks at level 3 are also characterised as having the most amount and longest duration of training. Employers with advanced level apprentices in these frameworks as well as Health, Public Services and Social Care were also more likely to offer a further qualification including higher apprenticeships, HNCs, foundation degrees and degrees. More needs to be done to investigate the relationships between the data around apprenticeship frameworks, attitudinal evidence and the effect of other factors such as age and gender and this will be explored in a future cohort update in this longitudinal series.

1.3 Research aims and objectives

The aim of the research was to provide robust and on-going longitudinal intelligence about the progression of advanced level apprentices into higher education that will inform national and local policy.

This aim was to be delivered by meeting the following objectives:

- analyse the progression into higher education of five cohorts of advanced level apprentices completing in the years 2005-06 to 2009-10;
- provide a top level trend analysis of the matched data by age showing percentages progressing into both non-prescribed higher education and university;
- provide further levels of analysis showing trends broken down by frameworks, provider types and regional variations;
- undertake analysis of the data by domicile providing evidence of the impact apprenticeships are having on social mobility;
- illustrate the potential of the research to provide local analyses at local authority, LEP (Local Enterprise Partnership), university, college, training provider and individual framework levels;

1.4 Methodology

The research findings are based on the matching of ILR (Individualised Learner Record) datasets 2005-06 to 2009-10 with HESA (Higher Education Statistics Agency) datasets between the years 2005-06 and 2011-12. They provide a detailed analysis of the nature of the progression of apprentices, trends in progression rates over time and highlight the contribution made by FE Colleges in delivering the sort of higher education to which many apprentices progress. Since the matched records contain demographic information about the apprentices such as gender, age and domicile and also data about where they progressed from and where they progressed to, there are a wide set of variables that can be compared and this report provides a selection. The findings published in this report

provide an overall picture of apprenticeship progression at this point in time. The research project is longitudinal. The aim is to continue to repeat the matching year on year to provide ever richer sets of data tracking the progression flows of this important group of part-time work-based learners.

The start date, rather than the end date, is used as a census point so that the timing of higher education entry can be better understood. It acknowledges that apprentices are rolled on and rolled off an apprentice framework and therefore the start date is deemed the most appropriate census date to determine the year of the cohort, especially as some apprentices appear to commence study of a higher education qualification in the same year as they are completing their framework.

Just fewer than 60% of advanced level apprentices complete their framework in two years, although achievement and completion is dependent on the framework structure and how long individual learners take to complete their work based learning. For example, around 60% of the 2005-06 cohort will have finished during 2006-07 and a further 24% finish in 2007-08.

Although the start date is used as a cohort census date, this study is based on advanced level apprentices who have completed and achieved their framework.

Tracking back, as well as forward, allows an investigation into the fluid nature of advanced level apprentice participation in higher education and shows the extent to which some apprentices already have experience of higher education when they first start their apprenticeship. Tracking forward to HESA datasets for advanced level apprentices who have been identified as having no previous higher education experience, enables the study to explore real progression from Level 3 to Level 4. Moreover, linking the cohort to higher education datasets longitudinally over a number of years, allows an investigation into the timing of entry to higher education. For example, all those advanced level apprentices who completed (and were identified as achievers) in 2005-06, were linked to seven years of higher education datasets in 2005-06, 2006-07, 2007-08, 2008-09, 2009-10, 2010-11 and 2011-12. Advanced level apprentices who start their Level 4 qualification in the same year as their advanced level apprenticeship are counted as first time entrants and these records are included in the progression rates, categorised, with the following two years, as *immediate progression*.

1.4.1 Prior entry to higher education

The HESA datasets with records of prescribed higher education learners were tracked from 2003-04 although students who had entered higher education from 1999 were also flagged within the dataset. The Individualised Learner Records (ILR) were tracked from 2002-03. Tracking back to datasets prior to commencement of the apprentice framework provides a fuller picture of apprentice participation in higher education.

1.4.2 First time entrants

In this report, higher education progression patterns following completion and achievement of apprenticeships are presented for five cohorts of learners from 2005-06 through to 2010-11. The first cohort tracked, 2005-06, has been linked to seven years of higher education datasets and this provides a rich picture of timing of progression.

Immediate progression is classified as those apprentices who enter higher education three years from the start of their apprenticeship. Given that the average duration of an advanced level apprenticeship is 24 months, this three year period includes those who enter in the same year as they are completing their apprenticeship and the year immediately following. The following table illustrates the longitudinal matching:

Table 1: Cohort matching to establish progression

Advanced level apprenticeship start	Advanced level apprentice likely completion	Higher education datasets (HESA and ILR)						
		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
2005-06	Between 2006-07 and 2007-08	Immediate						
2006-07	Between 2007-08 and 2008-09		Immediate					
2007-08	Between 2008-09 and 2009-10			Immediate				
2008-09	Between 2009-10 and 2010-11				Immediate			
2009-10	Between 2010-11 and 2011-12					Immediate		
2010-11	Between 2011-12 and 2012-13						Immediate	

1.4.3 Dataset matching

Two datasets were used to undertake the tracking exercise: the Individualised Learner Record (ILR) for students recorded as advanced level apprentices in 2005-06, 2006-07, 2007-08, 2008-09, 2009-10 and 2010-11and the Higher Education Statistics Agency (HESA) dataset for entrants to publicly funded higher education institutions in the United Kingdom during 2005-06, 2006-07, 2007-08, 2008-09, 2009-10, 2010-11 and 2011-12.

The Data Service provided records on learners on an advanced level apprentice programme including name, date of birth, postcode, gender, and framework. Two matching exercises were undertaken to obtain the total number of learners who entered higher education study:

- ILR Level 3 student data to HESA student data to identify FE Level 3 Students progressing to prescribed higher education study **and**
- ILR Level 3 student data to ILR Level 4 student data to identify FE Level 3 students progressing to non-prescribed higher education study in FE

The absence of a unique learner number, which follows students from one provider to another, means that individual students were tracked within, and through, each of the datasets using a number of personal characteristics. A fuzzy matching exercise was undertaken by HESA where for each final year Level 3 student in the ILR dataset, the name, date of birth, postcode and gender was used by HESA to match against each year of their dataset. The ILR was matched to HESA datasets between 2003-04 and 2011-12. This enabled identification of students who were already in higher education prior to commencement of their advanced level apprenticeship. The HESA datasets were also checked back to 1999 to identify students who entered higher education for the first time after starting their advanced level apprenticeship thus producing a more accurate picture of progression. For first time entrants, this meant that the 2005-06 cohort was matched against seven years of HESA data: 2005-06, 2006-07, 2007-08, 2008-09, 2009-10, 2010-11 and 2011-12. HESA data for matched students on their first year of programme were returned including: higher education study year, higher education level, higher education subject group, higher education mode, higher education institution and higher education campus.

Similarly, for each advanced level apprentice completer a matching exercise was undertaken with the subsequent years FE Level 4 student data using either the ILR student unique reference, or name, date of birth, postcode and gender.

There were a number of issues encountered with both matching exercises:

ILR to HESA issues

- Fuzzy matching using all four student identifiers such as full name, date of birth, postcode and gender is fairly straightforward but sophisticated matching techniques were employed to match records where there were slight differences, eg. name spelling.
- Some individuals were studying for a Level 3 FE programme at the same time and in the same year as studying a higher education programme. Only individuals who progressed from their apprenticeship to a higher education programme in a later year are included in the study.

ILR level 3 to ILR level 4 non-prescribed higher education issues

- Not all students progressed to Level 4 study in FE at the same college and so a fuzzy matching exercise was undertaken using the four personal identifiers.
- The matched HESA dataset was then joined back to the ILR dataset so that for each matched record the following profile was obtained for each advanced level apprentice student who progressed: FE Level 4 study year, provider, student name, student age band, student post code, student mode, apprentice framework and higher education study year, higher education location, higher education Institution, higher education campus, higher education study level and higher education mode.

2. Progression of apprentices to higher education – headline figures

The overall findings for advanced level apprentices progressing into higher education for each of the cohorts are provided in this section.

Table 2 shows volumes of advanced level apprentices and the number who progressed by age group. It highlights the growth in the number of advanced level apprentices during the period (20,540) and particularly those aged over 25 years. The table also shows that the numbers entering higher education have increased: overall 1,200 more entered higher education from the 2009 cohort than those who entered from the 2005 cohort.

Table 2: Numbers: 2005 and 2009 tracked population and higher education entrants

Age Group	2005-06 Advanced level apprentices		2009-10 Advanced level apprentice		*Difference 2005 - 2009*	
	Tracked Population	Number entering higher education	Tracked Population	Number entering higher education	*Tracked population*	*Number entering higher education*
17-19 years	22380	2895	26310	3195	*3930*	*300*
20-24 years	10705	980	15530	1265	*4825*	*285*
25+	185	15	11975	635	*11790*	*620*
Grand total	**33275**	**3895**	**53815**	**5095**	***20540***	***1200***

Table 3 shows the cumulative rates of progression into higher education for each of the six cohorts of apprentices. It tracks in-year progression where apprentices progress to higher education in the same year as they completed their apprenticeship and it shows the numbers progressing for each subsequent year. This pattern of progression of apprentices must be set in the context of their lives – these are people in work and on completion of their advanced level apprenticeship, there may be pressure on them to operate at the technician level they have been trained for. However the rapid pace of change in some industries and the requirements of regulatory frameworks in others will influence decisions of both employees and employers to undertake higher education. The fact that progression rates are higher two years after completion for each year up to 2008-09 shows that for many decisions about higher education are taken later and the lower, but still fairly substantial numbers progressing after three and four years show this pattern. These numbers may also reflect those students who decide to take another career pathway.

This table also shows that for those cohorts, where three year tracking is possible, the progression rate falls from 11.7% to 9.5% but further analysis in the report shows the contributing factors for this decrease are particularly the large increase in the volume of

25+ advanced level apprentices over these years and the fact that this group of learners have a lower progression rate than younger apprentices. This is illustrated in Figure 1.

Table 3: Longitudinal progression of advanced level apprentices

Advanced level apprenticeship start Year	Population	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	3 years tracking		All tracked to date		
		Number	Number	Number	Number	Number	Number	Number	Immediate higher education progression	% Higher education progression	Total number to higher education	% Higher education progression	Number of years tracked
2005-06	33285	505	1510	1885	830	650	520	360	3900	11.7%	6255	18.8%	7 yrs
2006-07	35525		475	1525	1995	965	685	445	3995	11.2%	6090	17.1%	6 yrs
2007-08	41370			465	1625	2450	1000	620	4540	11.0%	6160	14.9%	5 yrs
2008-09	49360				555	2180	2165	990	4900	9.9%	5890	11.9%	4 yrs
2009-10	53815					755	2350	1990	5095	9.5%	5095	9.5%	3 yrs
2010-11	26430*						465	2390	na	na	2855	10.8%	2 yrs

*NB - It takes most apprentices at least two years to complete their framework and so this population does not include those who started in 2010 but have not yet completed. The cohort populations will change in updates as apprentices who complete their framework are included in the tracking study.

Figure 1 shows immediate higher education progression rates for each of the five cohorts tracked for three years into higher education by age group. The line graph clearly illustrates the stable progression rate of the younger age group compared to a falling progression rate for the older 25+ age group. This age group has seen a particular growth in the number of advanced level apprentices but higher education progression trends show that with this growth the proportion of students entering higher education has not been maintained. The higher progression rate observed for the earlier cohort of 2005 25+ advanced level apprentices is inflated by the small population of 185 combined with the fact that only 25 frameworks are represented by this group. Furthermore, at least a quarter of the 2005 cohort were on a Health & Social Care framework. This compares to the 2009 cohort of 25+ learners, a much larger number of 11,975 who are represented in 74 frameworks where only 15% are on a Health & Social Care framework. These differences all contribute to the lower progression rate seen for this age group and which results in a drop in the overall higher education progression rate of advanced level apprentices between 2005 and 2009.

It is noted that although the number of younger advanced level apprentices has also grown across the tracked cohort years, albeit to a lesser extent, the higher education progression rate has remained stable.

Figure 1: Immediate higher education progression rates by age group

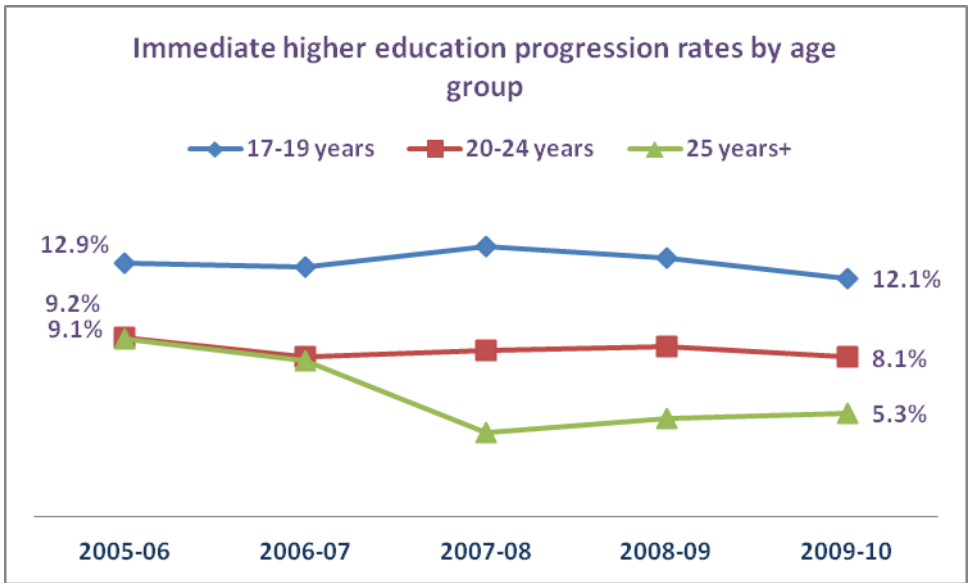
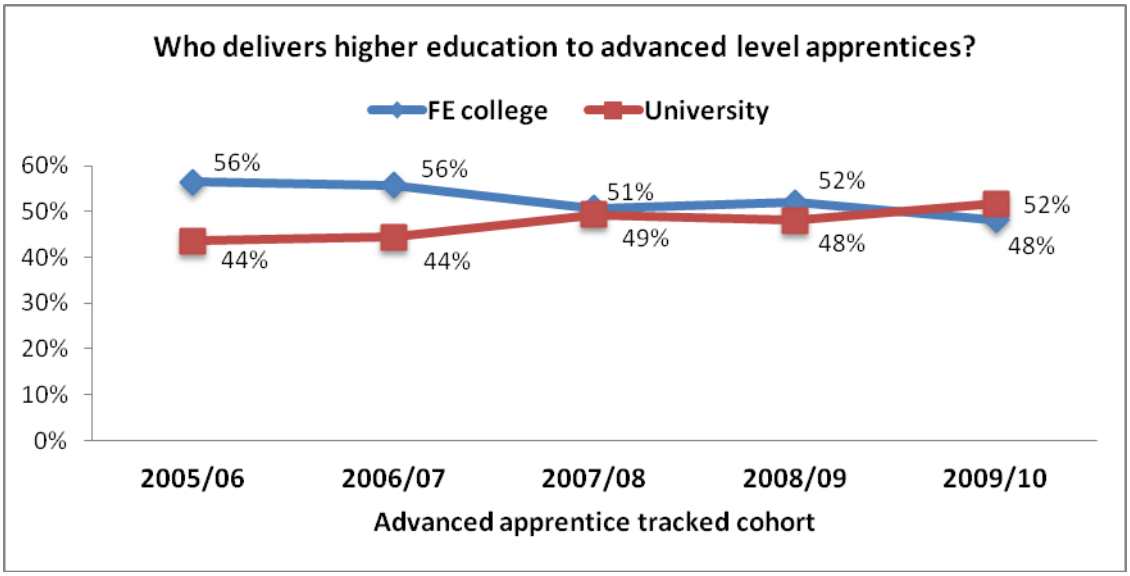


Figure 2 illustrates the part that both FE Colleges and Universities play in delivering higher education to advanced level apprentices who progress. The chart shows that up until the 2008-09 cohort, a higher proportion of students progressed to higher vocational education in FE colleges than to higher education in universities. However, in 2009-10 that changed and universities delivered to a higher number of advanced level apprentices. This may be influenced by the increase in admissions of learners with BTEC qualifications into universities and First Degree programmes. UCAS in their end of cycle reporting (UCAS, 2012), found that the entry rate for BTEC learners into higher education increased by 2% points between 2008 and 2011 and that BTECs are the now the second highest entry qualification used to enter university (behind A levels).

Figure 2: Delivery of higher education to advanced level apprentices



3. Characteristics of advanced level apprentices

In this part of the report, characteristics of the advanced level apprentice cohorts tracked in this study are presented followed by an investigation into the rate and pattern of prior progression from intermediate apprenticeships and also their previous experience of higher education. The number of apprentice starts has grown considerably since 2005 but the numbers in different frameworks have grown unevenly resulting in a change in the profile of advanced level apprentices across each of the tracked years. By presenting each of the tracked cohorts in terms of their characteristics including age, gender, framework and domicile, a context for progression is provided where progression patterns can be explained in part by the changing nature of the cohorts across the five years. Also in the section is an exploration of *progression* in terms of whether some apprentices may previously have studied at an intermediate level and those who may also have studied at a higher level but then come onto an advanced level framework. In the previous report of this series, (Joslin & Smith, 2013) it was apparent that the educational journey of apprentices can be quite complex with some apprentices undertaking frameworks offering level 3 qualifications for the first time but others already having qualifications at level 3 or higher who have changed pathways through employment and are undertaking a further level 3 qualification as part of their apprenticeship.

3.1 Key characteristics of the advanced level apprentice cohorts in this study

Tables 4 to 9 show that:

- The number of female advanced level apprentices has more than doubled. All age groups saw an increase but the growth was inflated by in the large increase in females aged 25+. Although the number of males also increased, the growth was much lower than females. There was very little change in the number of 17-19 year old males but a large increase in the number of advanced level apprentice males over 25. (Table 4).
- Numbers of advanced level apprentices have increased in every region in England. (Numbers reflect the home region of the apprentice). London and the South West have seen the highest growth in numbers of advanced level apprentices across each of the tracked years. The West Midlands, the North West and the North East have the lowest increase in numbers. (Table 5).
- Framework numbers show that the biggest growth has been with Business Administration, Children's Care, Learning & Development, Health & Social Care, Vehicle Maintenance & Repair and Sporting Excellence. Meanwhile, the numbers in Engineering and Electrotechnical tracked in this study have declined. (Table 6).
- The disadvantaged profile of advanced level apprentices has not changed, around 22% of apprentices are classified as living in a low higher education participation area and this proportion has remained steady across the cohorts. (Table 7).
- Increases in numbers were seen across all provider types apart from the *Other* category which includes charities and non-profit making associations. The Public Sector also saw the lowest growth in advanced level apprentice numbers across the

cohort years and Businesses (Direct Grant) and Private Training Providers had the highest growth. (Table 8).

- A framework and age breakdown for the top ten frameworks shows a shift in the age composition at framework level. In 2005-06, 41% of those on a Health & Social Care framework were aged 17-19 but this dropped to just 13% for the 2009-10 cohort. Similarly, in Engineering, 86% of the 2005-06 cohort was aged 17-19 years but by 2009-10, 71% were profiled in this age category. Larger numbers of older advanced level apprentices will influence progression patterns and a change in age composition should be considered alongside the HE progression rate trends presented later in the report. (Table 9).

Table 4: Age and gender

Gender	Age	Advanced Level Apprentice cohort in the tracking study						
		2005	2006	2007	2008	2009	Difference 2005 and 2009	% growth
Female	17-19	7275	8450	8240	8785	10735	3460	48%
	20-24	5385	5955	6170	6240	8390	3005	56%
	Over 25	95	60	4300	9145	8330	8235	8668%
	Total	**12755**	**14465**	**18710**	**24175**	**27455**	**14700**	**115%**
Male	17-19	15105	15570	15665	15505	15575	470	3%
	20-24	5320	5435	5520	5710	7140	1820	34%
	Over 25	90	50	1470	3960	3645	3550	3944%
	Total	**20515**	**21060**	**22650**	**25175**	**26360**	**5840**	**28%**
Grand total		**33275**	**35520**	**41360**	**49350**	**53815**	**20540**	**62%**

Table 5: Regional distribution of advanced level apprentice cohorts

	2005-06		2006-07		2007-08		2008-09		2009-10		
Framework	Population	% of total population	Population	% of total population	Population	% of total population	Population	% of total population	Population	% of total population	% Population change
East Midlands	3440	10%	3570	10%	4200	10%	4695	10%	4920	9%	43%
East of England	2615	8%	2830	8%	3695	9%	4120	8%	4570	8%	75%
London	2010	6%	2115	6%	2525	6%	3545	7%	3895	7%	94%
North East	2885	9%	2620	7%	3185	8%	4205	9%	4010	7%	39%
North West	6145	18%	6795	19%	7000	17%	8095	16%	9355	17%	52%
South East	4040	12%	4920	14%	5360	13%	6600	13%	6805	13%	69%
South West	3395	10%	3750	11%	4425	11%	5450	11%	6475	12%	91%
West Midlands	4010	12%	3935	11%	5105	12%	6085	12%	6440	12%	61%
Yorkshire and the Humber	4235	13%	4510	13%	5340	13%	5955	12%	6835	13%	62%

Table 6: Advanced level apprentice cohorts in the study by Framework (top frameworks in terms of apprentice numbers)

Framework	2005-06		2006-07		2007-08		2008-09		2009-10		% Change
	Cohort number	% of total cohort	Cohort number	% of total cohort	Cohort number	% of total cohort	Cohort number	% of total cohort	Cohort number	% of total cohort	
Accountancy	1350	4%	1330	4%	1245	3%	1810	4%	1745	3%	29%
Business Administration	2375	7%	2930	8%	3640	9%	4720	10%	6685	12%	181%
Children's Care Learning and Development	2570	8%	3290	9%	3940	10%	4815	10%	5340	10%	108%
Construction	2795	8%	3090	9%	2580	6%	2145	4%	3320	6%	19%
Customer Service	2190	7%	1885	5%	2190	5%	2730	6%	4005	7%	83%
Electrotechnical	4005	12%	4355	12%	4270	10%	3575	7%	2055	4%	-49%
Engineering	3550	11%	3610	10%	4360	11%	4440	9%	2975	6%	-16%
Health and Social Care	1185	4%	1145	3%	2850	7%	2660	5%	3295	66%	178%
Vehicle Maintenance and Repair	965	3%	1410	4%	2580	6%	2600	5%	2760	5%	186%
Sporting Excellence	520	1%	710	2%	500	1%	1230	2%	1150	2.0%	67%

Table 7: Disadvantaged profile of advanced level apprentices

POLAR3 quintile	2005-06		2006-07		2007-08		2008-09		2009-10		Change 2009-2005
	population	% of population	population	% of population	population	% of population	population	% of population	population	% of population	
Q1 - Disadvantaged	7225	22%	7690	22%	9275	23%	10840	22%	11995	22%	66%
Q2	7925	24%	8105	23%	9485	23%	11230	23%	12365	23%	56%
Q3	6935	21%	7665	22%	8845	21%	10430	21%	11450	21%	65%
Q4	6270	19%	6885	19%	7740	19%	9435	19%	10095	19%	61%
Q5 - Advantaged	4710	14%	4975	14%	5795	14%	7210	15%	7690	14%	63%
Grand total	**33060**	**100%**	**35325**	**100%**	**41140**	**100%**	**49145**	**100%**	**53595**	**100%**	**62%**

Table 8: Advanced level apprentice cohort numbers by provider type

Provider type	Advanced level apprentice cohort population					% Change 2005 - 2009
	2005-06	2006-07	2007-08	2008-09	2009-10	
Businesses (Direct Grant)	4085	3860	4955	6385	7545	85%
FE College	7955	9740	10055	12400	13415	69%
Other e.g. charities	3865	3645	3235	3120	2530	-35%
Public Sector	1330	1040	1340	1675	1875	41%
Private Training Provider	15810	16870	21660	25750	28420	80%
Grand total	**33285**	**35525**	**41370**	**49360**	**53815**	**62%**

Table 9: Top ten frameworks and age band breakdown

Cohort	Age band	Accountancy	Active Leisure and Learning	Business Administration	Children's Care Learning and Development	Construction	Customer Service	Electrotechnical	Engineering	Hairdressing	Health and Social Care
2005	16-19	66%	36%	60%	67%	77%	38%	78%	86%	77%	41%
	20-24	34%	63%	40%	33%	23%	61%	21%	13%	23%	55%
	Over 25	0%	2%	0%	0%	0%	1%	0%	0%	0%	4%
2006	16-19	71%	36%	63%	68%	77%	37%	77%	88%	75%	32%
	20-24	29%	63%	37%	32%	23%	62%	23%	12%	25%	67%
	Over 25	0%	1%	0%	0%	0%	1%	0%	0%	0%	1%
2007	16-19	65%	31%	49%	58%	75%	26%	78%	83%	69%	13%
	20-24	31%	52%	30%	29%	24%	42%	19%	15%	28%	34%
	Over 25	4%	17%	21%	13%	2%	32%	3%	2%	3%	53%
2008	16-19	50%	23%	36%	54%	69%	18%	71%	79%	61%	9%
	20-24	27%	39%	24%	26%	28%	31%	19%	16%	26%	24%
	Over 25	23%	37%	39%	20%	3%	51%	11%	4%	13%	67%
2009	16-19	49%	34%	40%	56%	67%	15%	70%	71%	69%	13%
	20-24	33%	42%	26%	31%	29%	41%	22%	24%	24%	34%
	Over 25	18%	23%	34%	13%	4%	44%	9%	5%	7%	54%

3.2 Progression from intermediate apprenticeships to advanced level apprenticeships

The Individualised Learning Record datasets were linked across years from 2004-05 to 2010-11 to track back those advanced level apprentices who were recorded as studying an intermediate apprentice or NVQ at level 2 in the ILR. 2004-05 is the first year that apprentices were classified in the ILR and so the 2005-06 advanced level apprentice cohort is only linked back one year to identify whether they were a level 2 apprentice. For subsequent cohorts, however, the study was able to link back a number of years; for example, the 2009-10 cohort is linked back through five years of intermediate apprentice datasets to 2004-05. Due to this, the progression rate of the 2009-10 cohort gives the highest reported proportion of advanced level apprentices previously on an intermediate framework. However, trend analysis is likely to be skewed for the early advanced level apprentice cohorts.

It is important to note that this linking exercise across ILR datasets to identify intermediate apprentices progressing onto a level 3 advanced level apprenticeship did not identify whether the apprentice may already have had a level 3 qualification before starting their apprenticeship framework. The BIS prior attainment study mentioned on page 16 (BIS, 2011) found that around half of level 3 apprentices already had a level 3 qualification. This suggests that the advanced level apprenticeship does not necessarily provide evidence of up-skilling in terms of qualification achievement for many learners. It does however provide evidence of up-skilling in terms of *apprentice framework achievement*, indicating the proportion of students progressing through apprenticeships to a higher level of framework study.

In the next section, this report also examines the extent to which advanced level apprentices may already have a higher level qualification at level 4, 5 or 6 suggesting that the apprentice framework is offering higher level qualifications for some learners but for a small group of learners frameworks are providing additional qualifications in a specific subject area linked to a career path.

The prior attainment of apprentices is explored in some depth in the BIS study “Prior Qualifications of Adult Apprentices 2011-2012” (BIS, 2011) and this also illustrates the complexity of apprentice progression.

The 2009-10 advanced level apprentice cohort, tracked back for five years shows an overall progression rate of 52%, so around one in two advanced level apprentices had previously studied at intermediate level. This updates the 53% findings in the previous progression study (Joslin & Smith, 2013). This result also tallies with that found in the BIS study of prior qualifications (BIS, 2011) where it was reported that almost half of advanced level apprentices had achieved an apprenticeship or NVQ before starting their advanced level framework.

Table 10: Progression to advanced level apprenticeships from intermediate apprenticeships (2009-10 cohort updated)

Age band	Number of advanced level apprentices	Number who studied an intermediate apprenticeship	% progression
16-19	26310	16050	61.0%
20-24	15530	9475	61.0%
Over 25	11975	2995	25.0%
Grand total	53815	27985	52.0%

Table 11 presents figures to show that some frameworks have higher progression from intermediate to advanced level apprenticeships showing that students on some frameworks are more likely to have undertaken an intermediate apprentice than students in other frameworks. The majority of advanced level apprentices on a management framework start on an advanced level framework rather than an intermediate one as do those on an Electrotechnical framework. Conversely, the majority of Construction advanced level apprentices start on an intermediate framework before progressing to advanced level. The differences are stark but reflect framework pathways. For example, there is no intermediate apprentice framework for Management whilst students on technical frameworks such as Construction will typically start on an intermediate apprenticeship framework (and this may be a reason why apprentices in Construction were more likely to see it as a career route (Ipsos MORI, 2014).

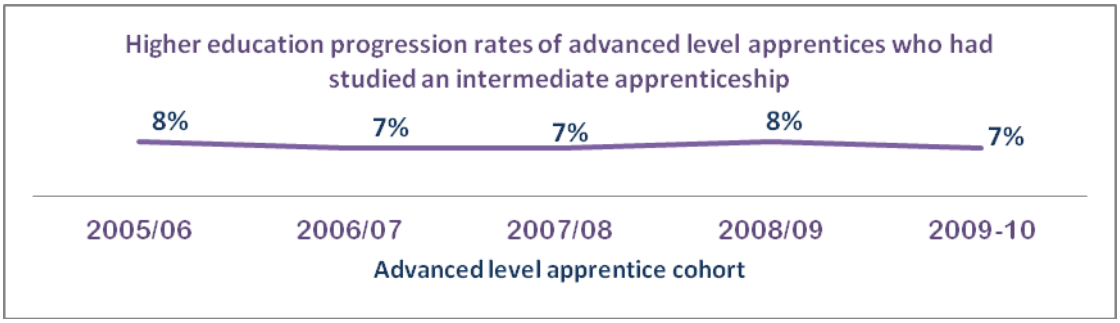
Table 11: Progression from intermediate apprenticeships to advanced level apprenticeships for ten frameworks

Framework	Number of advanced level apprentices	Number who studied an intermediate apprenticeship	% progression from intermediate apprenticeship
Business Administration	7450	3975	53%
Children's Care Learning and Development	5175	2425	46%
Customer Service	4620	2675	58%
Construction	3755	3580	96%
Vehicle Maintenance and Repair	2995	2840	95%
Health and Social Care	3940	980	25%
Hairdressing	2970	510	79%
Management	2720	510	19%
Electrotechnical	2735	320	12%
Accountancy	1795	1230	69%

3.3 Progression from intermediate apprenticeships through to advanced level apprenticeships and onto higher education.

Figure 3 looks at higher education progression rates for five advanced level apprentice cohorts who were tracked for three years. It shows the proportion of advanced level apprentices who were identified as intermediate apprentices and who then progressed to higher education. The progression rate for all the cohorts is similar at around 8%.

Figure 3: Immediate progression (tracked for three years)



3.4 Previous experience of higher education and apprenticeships

By linking advanced level apprentice records to previous years' higher education datasets, a picture of prior higher education experience emerges, showing the extent to which some advanced level apprentices (who already have Level 3 qualifications) had already entered higher education prior to commencing their advanced level apprentice framework. This was explored for a 2004-05 cohort in the previous report published by BIS (Joslin & Smith, 2013) tracking students to higher education up to 2010.

In this cohort update, the tracking continues to reveal the different journeys that advanced level apprentices students undertake where around 3% have already had prior experience of higher education. As in the 2010 study, some have achieved a higher education qualification then later started an advanced level apprenticeship; more often than not this is due to a complete change in career area and is evidenced where the higher education subject choice does not correspond with the apprentice framework. Another group of students will have started higher education but not completed their programme and then subsequently found employment which included an advanced level apprenticeship.

Through some real life cases the vignettes below help to illustrate of the complexity of advanced level apprentice progression.

Student X - at the age of 18 this individual enters higher education to study a Psychology degree but does not complete their qualification. Three years later at the age of 21, student X starts an advanced level apprentice in Business Administration.

Student Y **-** studied Biology at University at age 19 and completed their Degree before starting an Electrotechnical advanced level apprenticeship at age 22.

Student Z **-** started a Chemistry Degree but never finished then subsequently undertakes an Accountancy advanced level apprenticeship.

4. Trends in the progression of apprentices over five years (2005-06 to 2009-10)

This section looks at the progression trends of five cohorts of advanced level apprentices where rates of progression can be compared over three years.

It is important to reiterate here that the number in the tracked population should not be confused with the numbers reported in the Statistical First Release (SFR) which are provided by the Data Service. The SFR identifies a different population and achievements are counted as framework achievements in the year they achieve the framework. In this study, we identify the population using the apprentices' academic start year then select those who then go onto complete and achieve their framework in later years. For this reason there are differences between some of the trends in this report and the statistics published in the SFR.

It should also be noted that because the tracked population in this study is identified by their start year only once they have achieved their framework, it is liable to fluctuation especially for later cohorts. As these cohorts continue to be tracked the data becomes more complete. This underlines the importance of longitudinal tracking where timing of entry varies across frameworks and the type of higher education study and also across different individual characteristics such as age and background. Nevertheless, in this section there is a comparison across years so that we can begin to explore trends in progression and framework variations and also examine changes in the progression patterns and behaviour of advanced level apprentices over time.

4.1 Initial entrant progression trends

Immediate higher education progression for each of the five cohorts is used to look at trends; this combines those students who enter in the same year as they start their advanced level apprenticeship and in the two years following. Comparisons are made in later tables between the earliest cohort 2005-06 and the latest cohort that has been tracked for three years; 2009-10.

Progression rates for each cohort with a funding type breakdown are given in Table 12. The three year progression rate for the entire 2005-06 cohort was 11.7% and this decreased to 9.5% for the 2008-09 cohort. The reduction in rates is influenced by a significant increase in the tracked population of apprentices in the 25+ age group (shown in Table 1). The progression rate for young advanced level apprentices aged 17-19 is more or less stable at around 12%-13% but it is the rates of older learners aged 25+ that have seen the greatest decrease. A funding type breakdown shows that while progression rates to non-prescribed higher education have increased for the older age

group (+2.2% points) there has been a drop of -6.0% points in progression rates to prescribed higher education.

Table 12: Trends in progression rates by age and funding type

Age group	% point difference 2005-06 and 2009-10	2005-06	2006-07	2007-08	2008-09	2009-10
Non-prescribed higher education						
17-19 years	0.1%	2.9%	3.1%	2.5%	3.4%	3.0%
20-24 years	-0.4%	3.4%	2.8%	2.5%	3.0%	2.9%
25+	2.2%	0.0%	0.9%	1.3%	1.8%	2.2%
Grand total	-0.2%	3.0%	3.0%	2.3%	2.9%	2.8%
Prescribed higher education						
17-19 years	-0.9%	10.1%	9.6%	11.3%	9.9%	9.1%
20-24 years	-0.6%	5.8%	5.3%	6.0%	5.6%	5.2%
25+	-6.0%	9.1%	7.1%	3.0%	3.2%	3.1%
Grand total	-2.0%	8.7%	8.2%	8.6%	7.1%	6.7%
All higher education progression						
17-19 years	-0.8%	12.9%	12.7%	13.8%	13.2%	12.1%
20-24 years	-1.0%	9.2%	8.2%	8.5%	8.6%	8.1%
25+	-3.8%	9.1%	8.0%	4.3%	5.0%	5.3%
Grand total	**-2.2%**	**11.7%**	**11.2%**	**11.0%**	**9.9%**	**9.5%**

It is worth considering progression trends in the context of population changes in the tracked cohorts. Table 2 in the second section of this report highlighted the huge expansion in the number of advanced level apprentices in the 25+ age group who have not progressed into higher education at the same rate and this has resulted in a decline in overall progression rates.

The number of 17-19 year old apprentices in the cohort tracked increased between 2005-05 and 2009-10 and although the numbers progressing to higher education also increased, progression for the last tracked cohort, 2009-10, was at a slightly lower rate resulting in a -0.8% drop in progression rate. The numbers of 20-24 year old advanced level apprentices also increased and their progression rate saw a slight dip (-1% point). It is notable that across cohort years, the 17-19 year progression rate has fluctuated up and down around 12% but the progression rates of the 25+ year groups has declined.

4.2 Trends in progression by region

In section 3.1, Table 5 compared each of the tracked cohort populations and showed that most regions have seen a higher number of advanced level apprentices with London and the South West nearly seeing a 100% rise in numbers. The smallest increases were to the

tracked populations in the North East and the West Midlands. However, tracked populations shift significantly year on year and this may reflect the numbers studying different frameworks at regional level who are included in the tracked population as they complete their framework.

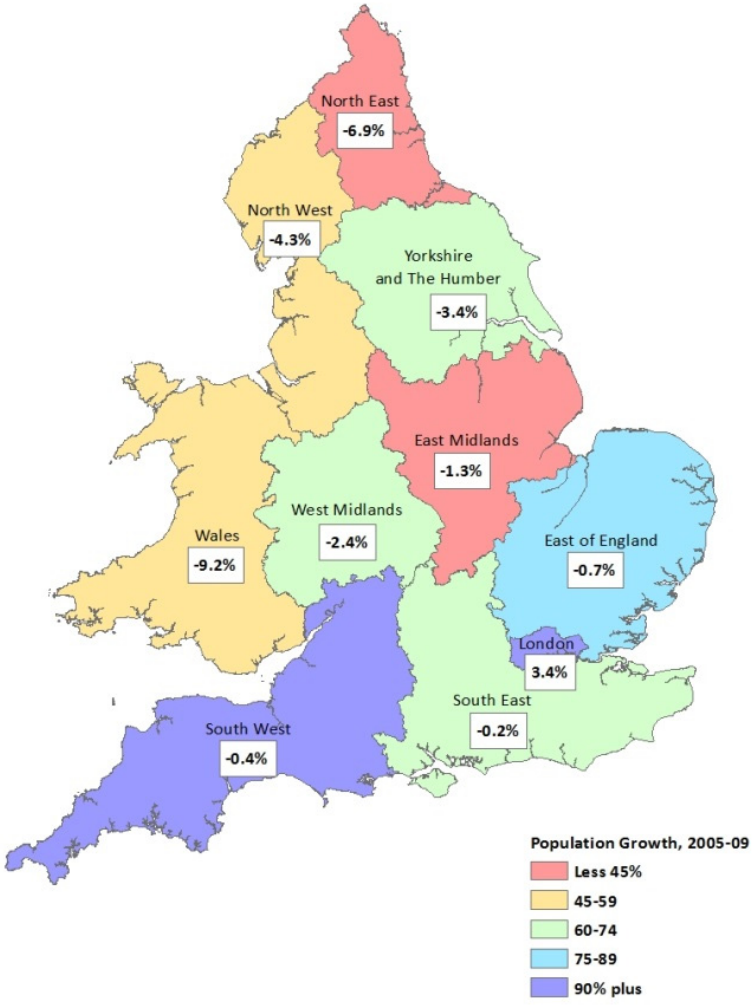
Table 13 shows that against rising populations most regions saw a decrease in higher education progression rates between 2005-06 and 2009-10. The North East and the North West saw the highest decreases in progression rates. Meanwhile London saw the highest growth in advanced level apprentices and was the only region to see a rise in higher education progression rates (+2.4% points).

Table 13: Trends in region progression rates

REGION	2005-06		2006-07		2007-08		2008-09		2009-10		Change 2005-2009	
	Population	% HE progression	Population	% HE progression	Population	% HE progression	Population	% HE progression	Population	% HE progression	% Population change	Difference HE progression
East Midlands	3440	11%	3570	11%	4200	11%	4695	10%	4920	9%	-1%	-1.3%
East of England	2615	9%	2830	9%	3695	10%	4120	9%	4570	8%	1%	-0.7%
London	2010	6%	2115	6%	2525	7%	3545	9%	3895	9%	1%	3.4%
North East	2885	17%	2620	18%	3185	15%	4205	14%	4010	10%	-1%	-6.9%
North West	6145	14%	6795	14%	7000	15%	8095	11%	9355	10%	-1%	-4.3%
South East	4040	9%	4920	8%	5360	8%	6600	8%	6805	9%	1%	-0.2%
South West	3395	11%	3750	10%	4425	10%	5450	9%	6475	10%	2%	-0.4%
Wales	120	17%	165	11%	195	12%	250	5%	185	7%	0%	-9.2%
West Midlands	4010	13%	3935	12%	5105	10%	6085	10%	6440	10%	0%	-2.4%
Yorkshire and the Humber	4235	12%	4510	12%	5340	11%	5955	10%	6835	8%	0%	-3.4%
Unknown	225	17%	205	13%	230	15%	215	13%	220	7%	0%	-10.1%

Figure 4: Map illustrating percentage point change in higher education progression between 2005-06 and 2009-10 and advanced level apprentice population growth.

The map illustrates the progression rate difference between the 2005-06 advanced level apprentice cohort and the 2009-10 cohort. It highlights the fact that only London saw an increase in progression rates. This is against a backdrop of rising populations for all regions where London and the South West saw particularly high growth.



4.3 Gender trends

A gender and age trend analysis reveals that the tracked population of females has more than doubled whilst the tracked population of males has only increased by 28%. Females in the aged 25+ age bracket have contributed significantly to this increase. The number of younger males aged 17-19 years saw a small increase of +3% and this compares to an increase of +48% for young females. Both males and females in the younger age group saw a very small drop in higher education progression rates (-0.9%). Mature males aged

25+ saw the highest drop in progression rates from 11% to 4.8% although it should be noted that the 2005-06 25+ population is very small.

Table 14: Cohort comparison by gender and age

Gender	2005-06			2009-10			Change 2005-2009	
	Population	% Gender of total	% Higher education progression rate	Population	% Gender of total	% higher education progression rate	% Population change	Difference in higher education progression
Female	**12755**	**38%**	**12.1%**	**27455**	**51%**	**9.4%**	**115%**	**-2.7%**
17-19 years	7275	57%	13.9%	10735	39%	13.0%	48%	-0.9%
20-24 years	5385	42%	9.8%	8390	31%	8.6%	56%	-1.2%
25+	95	1%	7.3%	8330	30%	5.5%	8578%	-1.8%
Male	**20515**	**62%**	**11.5%**	**26360**	**49%**	**9.6%**	**28%**	**-1.9%**
17-19 years	15105	74%	12.5%	15575	59%	11.6%	3%	-0.9%
20-24 years	5320	26%	8.5%	7140	27%	7.6%	34%	-0.9%
25+	90	0%	11.0%	3645	14%	4.8%	3903%	-6.2%

4.4 Trends by framework

Table 15 explores changes by framework. Those frameworks with a significant numbers of higher education entrants are shown.

Earlier in section 3.1, Table 6 showed large increases in the number of students on Customer Service, Business Administration, Health and Social Care and Sporting Excellence frameworks. The table also showed that the tracked population of students in Engineering and Construction frameworks has decreased.

Table 15 below examines higher education progression by framework and shows that for some frameworks with significant changes in tracked population, the higher education progression rate has not been maintained. The progression rates for Customer Service, Business Administration and Health and Social Care have decreased despite higher numbers of advanced level apprentices. Health and Social Care in particular has seen a decline in progression rates by 16.7% points and this may be due to the higher UCAS tariff points now required for entry to Nursing and the move to a degree only pathway.

The numbers of Engineering advanced level apprentices in the 2009-10 cohort was lower than in previous years and the HE progression rate for this framework has been declining year on year. Closer examination revealed a drop in the number of Engineering apprentices who went onto HNC programmes specifically. The profile of Engineering advanced level apprentices also changed across the cohort years. For example in 2005-06, 86% on this framework were aged between 17-19 years but by the 2009-10 cohort, 71% were in this age group with more in the 20+ age groups.

The tracked population of these cohorts will change as the cohort is updated, particularly 2008-09 and 2009-10 cohorts as further achievers are included in the tracking. Future updates will continue to examine progression rate trends at framework level.

Table 15: Cohort comparison by framework

Framework		Accountancy	Business Administration	Children's Care Learning and Development	Construction	Customer Service	Electrotechnical	Engineering	Hairdressing	Health and Social Care	Vehicle Maintenance and Repair
2005-06	Population	1350	2375	2570	2795	2190	4005	3550	1425	1185	965
	% HE progression rate	66.6%	10.8%	6.1%	5.1%	6.5%	1.0%	37.2%	1.3%	25.1%	2.0%
2006-07	Population	1330	2930	3290	3090	1885	4355	3610	1955	1145	1410
	% HE progression rate	70.3%	10.4%	6.9%	4.8%	5.3%	0.7%	36.3%	1.7%	20.1%	3.1%
2007-08	Population	1245	3640	3940	2580	2190	4270	4360	1935	2850	2580
	% HE progression rate	67.6%	9.4%	6.3%	7.8%	4.9%	0.8%	34.2%	1.7%	10.0%	2.1%
2008-09	Population	1810	4720	4815	2145	2730	3575	4440	2470	2660	2600
	% HE progression rate	68.4%	8.0%	6.4%	5.6%	4.8%	0.8%	23.8%	2.3%	7.7%	4.2%
2009-10	Population	1745	6685	5340	3320	4005	2055	2975	2380	3295	2760
	% HE progression rate	76.2%	7.6%	6.3%	6.6%	4.2%	1.1%	22.2%	2.4%	8.4%	3.1%
Change 2005-06 to 2009-10	Population	395	4310	2770	525	1815	-1950	-575	955	2110	1795
	Progression rate %	9.6%	-3.3%	0.2%	1.4%	-2.3%	0.1%	-15.1%	1.1%	-16.7%	1.1%

4.5 Demographic comparisons using POLAR3

The home postcodes of advanced level apprentices were used to classify learners using indicators of disadvantage. The HEFCE POLAR2 and POLAR3 (HEFCE, 2010) (HEFCE, 2012) were used as they classify neighbourhoods using higher education participation. POLAR3 classifies neighbourhoods by quintiles ordered from Q1, those areas with very

low higher education participation rates and living in an area of disadvantage to Q5, those with very high rates and an area of advantage. POLAR is a useful proxy for disadvantage. Further exploration of disadvantaged students is provided later in the report in section 5.8.

Table 16: POLAR3 breakdown for 2005-06 to 2009-10 cohorts

POLAR quintile	Higher education progression rate					
	2005-06	2006-07	2007-08	2008-09	2009-10	Progression rate % point diff.
Q1 - Very low higher education participation	10%	10%	9%	9%	8%	-2.0%
Q2	12%	10%	11%	10%	9%	-2.5%
Q3	12%	12%	11%	10%	10%	-2.3%
Q4	12%	13%	12%	11%	10%	-1.9%
Q5 - High higher education participation	13%	13%	12%	11%	11%	-2.3%
Grand total	12%	11%	11%	10%	9%	-2.2%

A comparison of higher education progression rates also shows differences between the quintiles. The higher education progression rate of Q5 learners has decreased more than that of Q1 learners (-2.3% points Q5 compared to -2.0% points Q1).

4.6 Trends by type of apprenticeship provider

In Table 17, progression rate trends by apprentice provider type are presented showing the immediate progression rates for each cohort. The progression rates for apprentices based with FE Colleges and Private Training Providers have remained fairly stable whilst rates for apprentices from Businesses (Direct Grant) and the Public Sector have decreased significantly over the period. Although the number of advanced level apprentices based with *Other* providers such as charities and non-profit making organisations has dropped, their progression rate has in fact increased.

Table 17: Type of apprenticeship provider for 2005-06 – 2009-10 cohorts

Provider type	2005-06		2006-07		2007-08		2008-09		2009-10	
	Cohort number	% Immediate progression	Cohort number	% Immediate progression	Cohort number	% Immediate progression	Cohort number	% Immediate progression	Cohort number	% Immediate progression
Businesses (Direct Grant)	4085	13%	3860	12%	4955	12%	6385	8%	7545	5%
FE College	7955	13%	9740	11%	10055	12%	12400	11%	13415	12%
Other	3865	7%	3645	8%	3235	12%	3120	11%	2530	12%
Public Sector	1330	20%	1040	16%	1340	13%	1675	11%	1875	11%
Private Training Provider	15810	11%	16870	11%	21660	10%	25750	10%	28420	9%
Grand total	**33285**	**12%**	**35525**	**11%**	**41370**	**11%**	**49360**	**10%**	**53815**	**10%**

4.7 Trends by higher education qualification type

Table 18 examines the higher education course type breakdown of the five advanced level apprentice cohorts who entered higher education. Higher education course types in this update differ slightly to those reported in the previous study (Joslin & Smith, 2013) where HNC and HND were reported as one category. HNC, however, is classified as an *Other Undergraduate* programme and so to align our figures with the sector, HNC is included with other higher education programmes such as Certificates and Diplomas of Higher Education.

When comparing entrants from the 2005 cohort to the 2009 cohort, there has been a substantial increase in the number of entrants to first degree programmes, over three times as many First degree entrants from the 2009-10 cohort compared to the 2005-06 cohort. This amounts to +16% point increase in the overall share of First degree entrants. Foundation degree entrants have also doubled in number and share.

Meanwhile, the number of entrants to HNDs has remained small and steady. It is entrants to *Other Undergraduate* programmes that have seen a significant drop. For the 2005-06 cohort OUG entrants made up 50% of this total but this has declined to just 24% with the 2009-10 cohort. This is likely to be reflected in specific frameworks such as Engineering where around 70% of those who progress go onto an HNC programme.

The drop in HNC entrants is mirrored by a decline nationally in numbers on these programmes. In the BIS research report on higher education in FE Colleges (Parry, Callender, Scott, & Temple, 2012), this is related to the introduction of Foundation Degrees in 2001-02 which they argue, "eclipsed" Higher Nationals in colleges. They point out:

> "Prior to the introduction of the Foundation Degree in 2001-02, the two higher national qualifications constituted the dominant provision in colleges at the undergraduate levels. Today, they represent less than one-quarter of the undergraduate population." (Parry, Callender, Scott, & Temple, 2012, p. 45)

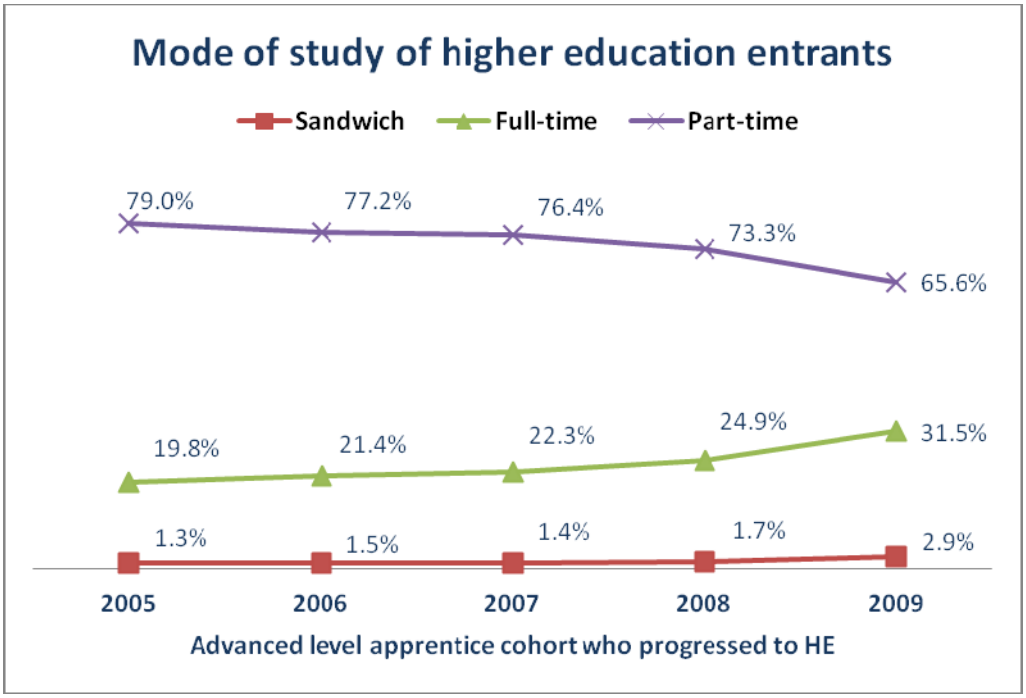
Table 18: Cohort comparison by higher education qualification type

Course Type	2005-06		2006-07		2007-08		2008-09		2009-10		2005-2009 Difference	
	HE entrants	% of total	HE entrants	% of total	HE entrants	% of total	HE entrants	% of total	HE entrants	% of total	% change	
											HE entrants	% rate
First degree	470	12%	565	14%	645	14%	860	18%	1425	28%	204%	16%
Foundation degree	390	10%	465	12%	635	14%	855	17%	785	15%	102%	5%
HND	75	2%	45	1%	70	2%	95	2%	100	2%	36%	0%
NVQ	1000	26%	1080	27%	960	21%	1405	29%	1505	30%	50%	4%
OUG (incl. HNC)	1930	50%	1820	46%	2215	49%	1660	34%	1245	24%	-35%	-25%

4.8 Trends by higher education mode of study

79% of the 2005-06 advanced level apprentices who went on to higher level study continued to study part-time in higher education but trends reveal a general decline in the proportion of entrants studying part-time, where 65.6% of the 2009-10 cohort who entered higher education did so on a part-time basis. The proportion of advanced level apprentices that enter higher education on a full-time basis has increased year on year.

Figure 5: Advanced apprentice cohort higher education entrant comparison by higher education mode of study



4.9 Higher education provider trends (top 20 providers)

The top twenty providers in terms of higher education entrants from the tracked cohorts of advanced level apprentices are shown in Table 19. The Open University provides higher education to the largest number of entrants tracked and entrant numbers have increased substantially; 10% of all entrants from the 2009-10 cohort are Open University students.

This study does not explore the factors that influenced the decisions of the apprentices who chose to study at particular institutions. Neither is it possible to say whether it was because they were particularly targeted by the institutions to which they progressed. Greater knowledge about this is however of strategic importance and could inform both the recommendation in University Challenge (Milburn, 2012) that:

> "universities should set out how they plan to accept more students who have completed apprenticeships onto their courses" (Page 54)

and the further development of higher apprenticeships through the vision set out in the National Apprenticeship Services' consultation on degree level higher apprenticeships (NAS, 2012).

It should be noted that the list in Table 19 is ordered by the 2009-10 volumes of HE entrants and compared with the table in the previous study (Joslin & Smith, 2013, p. 75) which was based on the 2004-05 cohort, it contains no colleges. This is due to the fact that universities have by 2009-10 eclipsed the colleges in delivering prescribed HE to apprentices as shown in Figure 2 on page 23. More detailed analysis of the data is needed to understand in greater depth the features of the changing proportion of apprentices progressing to colleges.

Table 19 – Number of entrants and proportion of total entrants by the top twenty higher education providers

Higher education provider	2005-06		2006-07		2007-08		2008-09		2009--10	
	HE entrants	% of total HE entrants	HE entrants	% of total HE entrants	HE entrants	% of total HE entrants	HE entrants	% of total HE entrants	HE entrants	% of total HE entrants
The Open University	210	5%	165	4%	280	6%	330	7%	505	10%
Teesside University	160	4%	185	5%	225	5%	265	5%	185	4%
University of Central Lancashire	95	2%	130	3%	145	3%	125	3%	155	3%
University of Plymouth	65	2%	55	1%	95	2%	130	3%	155	3%
Staffordshire University	20	0%	15	0%	65	1%	85	2%	110	2%
Coventry University	15	0%	15	0%	25	1%	25	1%	85	2%
Bournemouth University	35	1%	30	1%	55	1%	50	1%	80	2%
University of Bolton	25	1%	35	1%	55	1%	50	1%	75	1%
Sheffield Hallam University	30	1%	25	1%	55	1%	85	2%	75	2%
Leeds Metropolitan University	30	1%	35	1%	40	1%	70	1%	70	1%
University of Hull	15	0%	20	0%	70	1%	60	1%	60	1%
University of Northampton	20	1%	20	0%	25	1%	30	1%	50	1%
University of Huddersfield	40	1%	45	1%	75	2%	60	1%	50	1%
University of Northumbria at Newcastle	60	2%	35	1%	35	1%	45	1%	50	1%
Edge Hill University	55	1%	55	1%	50	1%	45	1%	45	1%
Anglia Ruskin University	55	1%	45	1%	70	2%	55	1%	45	1%
University of Wolverhampton	75	2%	40	1%	55	1%	55	1%	45	1%
University of Kent	45	1%	40	1%	40	1%	40	1%	45	1%
University of Chester	40	1%	55	1%	35	1%	30	1%	40	1%
Manchester Metropolitan University	25	1%	25	1%	40	1%	30	1%	40	1%

5. Recent trends in progression to higher apprenticeships 2008 and 2009 starts

5.1 Overview of apprentice progression to higher apprenticeships

In this section, a very early picture of the progression by advanced level apprentices to higher apprenticeships is explored based on cohorts starting in 2008-09 and 2009-10. This is done by matching between levels within the ILR and picking up the higher apprenticeship flag. These two cohorts are analysed in more detail separately as it is too early for a like for like comparison. Some common factors can be identified although it must be noted that for these years the dominant framework was Accountancy and this skews the analysis at this early stage. Because this research is longitudinal and will return year on year to updating these results, the inclusion of this section was felt to be important at this early stage to provide a benchmark.

Table 20 gives the historic picture of apprentices progressing to higher apprenticeships. Prior to the inclusion of higher apprenticeships in the Specification of Apprenticeship Standards for England (BIS, 2011) a few Sector Skills Councils had developed higher apprenticeship pathways and total numbers taking them up were initially low but by 2011-12 the number of higher apprentice starts recorded by The Data Service (SFR November, 2013) was 3,700. Following the higher apprenticeship funding in 2012 to support the development of a wider range of frameworks with commitments to deliver some 20,000 additional higher apprenticeship places by 2015, the volume is expected to rise. In this update, the advanced level apprentice cohort in 2008-09 and 2009-10 includes the latest group of apprentice completers who are tracked to subsequent years to identify if they appear as higher apprentices. For example, Table 20 shows that 72% of higher apprentices in 2008-09 and 2009-10 were previously advanced level apprentices.

Table 20: Number of higher apprentices who were previously advanced level apprentices

Higher apprenticeship year		*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*
Higher apprentice starts		***100***	***200***	***1,500***	***2,200***	***3,700***
Advanced level apprentices		**Progressed to higher apprenticeships**				
	2005-06	0	5	10	10	0
	2006-07	0	10	25	10	0
	2007-08	0	5	150	15	0
	2008-09	0	0	750	260	0
	2009-10	0	0	150	1040	0
	2010-11				250	0
	Total	**5**	**20**	**1085**	**1585**	**0**
	%	**4%**	**7%**	**72%**	**72%**	**0%**

Table 21 looks at first time entrants to higher level study and shows a 2% progression rate for the 2008-09 cohort and a 2.2% progression rate for the 2009-10 cohort to higher education. This 2.2% progression figure updates the figure of 2.4% found in the previous study but the cohort has increased substantially to reflect the increased number of advanced level apprentice completers. The results in this table also show that the majority of apprentices progress to non-prescribed higher education which can be explained by the volume of higher apprentices on an Accountancy framework.

Table 21: 2008-09 and 2009-10 advanced level apprentice progression to higher apprenticeships (first time entrants to higher level study)

Advanced level apprentice cohort	Population of first time entrants	2009-10	2010-11	2011-12	All tracked to date				
		Number	Number	Number	Total number to HE	% HE progression	% of total higher apprentices to prescribed HE	% of total higher apprentices to non- prescribed HE	Number of years tracked
2008-09	49360	700	250	0	950	2.0%	2.4%	97.6%	3 yrs
2009-10	53815	140	1040	1025	1175	2.2%	2.1%	97.9%	2 yrs
2010-11	26430	0	250	0		1.0%	1.0%	99.0%	1 yr

5.2 Detailed analysis of the 2008-09 and 2009-10 advanced level apprentice starts into higher apprenticeships

Table 22 shows that around 2% to 2.2% of advanced level apprentices progressed to a higher apprenticeship within 3 years of the start of their advanced level apprenticeship. A small proportion of the cohort already had prior experience of higher education (0.1%).

At the time of this study, the number of 2010-11 advanced level apprentice starts who had completed their framework was still low at 26,400 with many starts still to complete. For this reason, only 1% of the 2010-11 advanced level apprentice cohort was identified in the higher apprenticeship dataset but this is expected to increase as the 2010-11 cohort of advanced level apprentice completers increases and as they are tracked through to higher apprenticeships in 2011-12 and 2012-13

Table 22: 2008-09 advanced level apprentice progression to higher apprenticeships

Advanced level apprentices			Higher apprenticeship entrants							
			2009-10		2010-11		2011-12		Total higher apprentices	
Advanced level apprentice start year	Population		Number	%	Number	%	Number	%	Number	%
2008/09	44800	First time entrants to HE	700	1.6	250	0.6	0	0	950	1.9
		In HE prior to advanced level apprenticeship	50	0.1	10	0	0	0	60	0.1
		All advanced level apprentices	750	1.7	260	0.6	0	0	1010	2.0
2009/10	53815	First time entrants to HE	140	0.3	1025	1.9	10	0	1175	2.2
		In HE prior to advanced level apprenticeship	10	0	15	0	0	0	25	0
		All advanced level apprentices	150	0.3	1040	1.9	10	0	1200	2.2

5.2.1 Frameworks

Accountancy advanced level apprentices who progress dominate: 95%-98% of all those advanced level apprentices who went on to a higher apprenticeship were on an Accountancy framework. As the longitudinal tracking of advanced level apprentices who progress to higher apprenticeships continues, it is expected that patterns of progression may change.

Table 23: 2008-09 advanced level apprentice progression to higher apprenticeships by framework

Advanced level apprenticeship framework	% of higher apprentices tracked from advanced level apprenticeships	
	2008	2009
Accountancy	95.0%	98.4%
Business Administration	0.9%	0.4%
Children's Care Learning and Development	0.1%	0.1%
Communications Technologies (Telecoms)	0.1%	None
Customer Service	0.1%	0.1%
Electrotechnical	0.1%	None
Engineering	1.9%	0.1%
Hairdressing	0.1%	0.3%
Health and Social Care	0.1%	None
Heating, Ventilation, Air Conditioning and Refrigeration	0.1%	None
IT & Telecoms Professional	0.5%	0.3%
Management	0.1%	None
MES Plumbing	0.1%	0.1%
Metals Processing	0.1%	None
Vehicle Maintenance and Repair	0.2%	None
Grand total	**100.0%**	**100.0%**

5.2.2: Gender

Table 24 shows that for both cohorts tracked through to higher apprenticeships, females had a higher progression rate to higher apprenticeships than males (2.4% vs 1.6%)

Table 24: 2008-09 and 2009-10 advanced level apprentice progression to higher apprenticeships by gender

Advanced level apprentice starts	Gender	Advanced level apprentice population	Total higher apprentices	
			Number	%
2008-09	Female	20685	590	2.85%
	Male	21335	365	1.71%
2009-10	Female	27455	800	2.91%
	Male	26360	390	1.48%

5.2.3 Regional differences

Table 25 illustrates regional differences in progression rates of advanced level apprentices to higher apprenticeships. London and the South East have the lowest progression rates while apprentices in the East Midlands, South West and North West have the highest rates.

Table 25: 2008-09 and 2009-10 advanced level apprentice progression to higher apprenticeships by region

Region	2008-09			2009-10		
	Total advanced level apprentice population	Total higher apprentices	% Progression to higher apprenticeships	Total advanced level apprentice population	Total higher apprentices	% Progression to higher apprentices
East Midlands	4695	115	2.4%	4920	145	2.9%
East of England	4120	65	1.6%	4570	75	1.6%
London	3545	30	0.8%	3895	40	1.0%
North East	4205	65	1.5%	4010	75	1.9%
North West	8095	215	2.7%	9355	280	3.0%
South East	6600	60	0.9%	6805	90	1.3%
South West	5450	155	2.8%	6475	185	2.9%
West Midlands	6085	90	1.5%	6440	140	2.2%
Yorkshire and the Humber	5955	140	2.4%	6835	150	2.2%

5.3 Higher apprenticeship progression

Much of the argument for the implementation of higher apprenticeships was to open up higher education pathways that both apprentices and their employers understood: programmes that were designed for people in work and that therefore combined technical knowledge with work-based competence. Early tracking results of advanced level apprentices through to higher apprentices show that currently apprentices on an Accountancy framework make up most of this group. As higher apprenticeship numbers increase, further longitudinal tracking is necessary in order to see whether the composition of this group changes and to investigate further patterns of advanced level apprentice progression to higher apprenticeships.

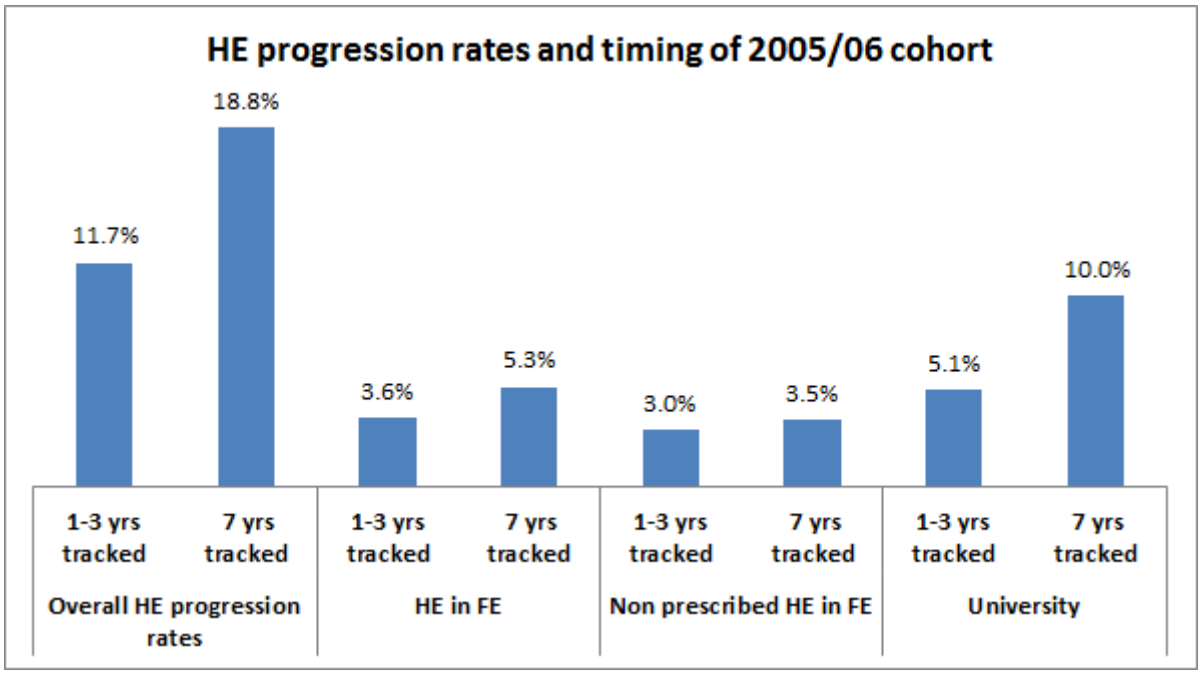
6. Detailed progression patterns of the 2005-06 apprentice cohort

This section provides a detailed analysis of the 2005-06 advanced level apprentice cohort that has been tracked into higher education over seven years.

6.1 Progression for 2005-06 apprentices who are first time entrants to higher education

The chart in figure 6 shows an 11.7% immediate progression rate (tracked 1-3 years) for the 2005-06 cohort increasing to 18.8% when tracked for seven years into higher education. The chart also presents rates by delivery. Apprentices who go onto study Level 4 non-prescribed programmes in FE more or less progress immediately with small numbers entering in later years. The chart illustrates this showing an immediate rate of 3% and a 7 year rate of 3.5%. In contrast, apprentices who go onto university delivered higher education are not all progressing immediately and when tracked up to seven years from the start of their apprenticeship their progression rate increases significantly (from 5.1% to 10.0%). This increase in seven year progression rates is found with higher education in FE progression too, although to a smaller extent.

Figure 6 Chart showing progression rates of 2005-06 cohort



Higher education progression is presented in Table 26 with a higher education programme type breakdown (prescribed higher education and non-prescribed higher education).

64% of all those who entered higher education did so within three years which means that 36% of total higher education entrants entered between 4 and 7 years on from the start of

their apprenticeship. Younger advanced level apprentices were less likely to enter prescribed higher education immediately than the older age group. The figures show that the majority of apprentices progressed onto non-prescribed higher education immediately rather than later and this is regardless of age.

Table 26: 2005-06 advanced level apprentices and higher education entry type by year with timing of entry

Age group		17-19 years	20-24 years	25+	Grand total
Advanced level apprentice starts		**22380**	**10705**	**185**	**33275**
Total higher education	**All tracked**	**4550**	**1670**	**30**	**6245**
		20.3%	**15.6%**	**15.5%**	**18.8%**
	% of total who entered higher education within 3 years	59.0%	59.0%	50.0%	64%
	% of total who entered higher education 4-7 years on	41.0%	41.0%	50.0%	36%
Prescribed higher education	**Into higher education**	**3795**	**1250**	**25**	**5070**
		16.9%	**11.7%**	**13.9%**	**15.2%**
	% of total who entered higher education within 3 years	*59.0%*	*50.0%*	*65.0%*	*57.0%*
	% of total who entered higher education 4-7 years on	*41.0%*	*50.0%*	*35.0%*	*43.0%*
Non-prescribed higher education	**Into higher education**	**755**	**415**	**5**	**1175**
		3.4%	**3.9%**	**1.6%**	**3.5%**
	% of total who entered higher education within 3 years	87.0%	85.0%	85.0%	85.0%
	% of total who entered higher education 4-7 years on	15.0%	15.0%	15.0%	15.0%

Here are some case studies to provide illustrative examples of students who enter higher education some time after completing their advanced level apprenticeship framework:

Student A - finishes an Electrotechnical advanced level apprenticeship in 2006 then starts a part-time Engineering degree in 2011.

Student B - completes a Health & Social Care advanced level apprenticeship in 2006 then enters a full-time Social Work degree four years later in 2010.

Student C - completes an Accountancy advanced level apprenticeship in 2005 and in 2010 starts a full-time degree in Primary Teaching.

6.2 Progression by geography

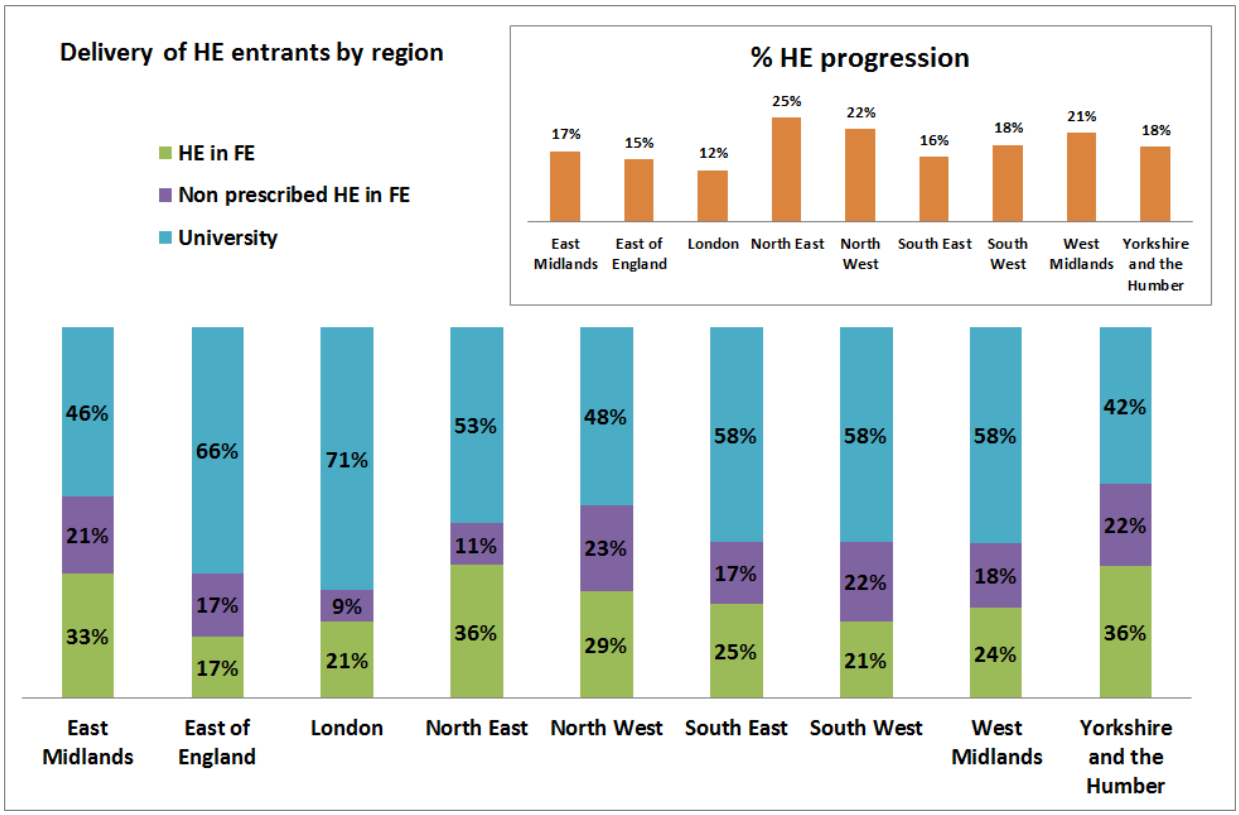
Geography is determined using the home domicile of the apprentice and classified by Government Office Region (GOR). Figure 5 provides a breakdown of 2005-06 progression by region. Less than 1% of the cohort live outside of England.

The first chart in Figure 7 illustrates the overall higher education progression rate of the 2005-06 cohort tracked for seven years into higher education. Of the regions in England,

advanced level apprentices in the North East, North West and West Midlands had the highest progression rates to higher education where at least 1 in 5 apprentices in each progress to higher education. This compares to London and the East of England where just over 1 in 10 progressed.

There are also regional differences in terms of delivery for apprentices going on to a higher education programme. The second chart in Figure 7 provides a regional breakdown of delivery and the proportion of total higher education entrants who got to a FE college to study higher education in FE, or non-prescribed higher education, or to a university. In contrast, 71% of those who progress in London go to a university compared to just 48% of the apprentices who progress in the North West; over half of those who progress in the North West will attend an FE college for their Level 4 study. Regional variations in progression rates will be influenced in part, by the dominance of frameworks in the area and progression pathways available to these frameworks. Frameworks and progression breakdowns are presented in Section 5.4.

Figure 7: 2005-06 advanced level apprentice cohort and higher education progression by government office region



6.2.1 Region and progression by framework

Table 27 illustrates the varying progression rates at regional level suggesting that students living in one area are more or less likely to progress to higher education than their framework peers who live in another area. For example, Engineering advanced level apprentices in the North of England are more likely to progress to higher education than their Southern peers. In London, 26% of advanced level apprentices on a Construction framework progress to higher education, compared to only 6% of Construction students living in the East Midlands. However, Business Administration apprentices in London have

lower progression rates than their peers in the North East who are also on a Business Administration framework. There are clear regional differences in the higher education progression patterns of advanced level apprentices on the same framework and these patterns may be influenced by the availability and access to higher education pathways in the region as well as employment rates in the region.

Table 27: Higher education progression rates by region and framework

Framework	Advanced level apprentices 2005-06		Progression rate by region								
	Cohort	Overall HE rate	East Midlands	East of England	London	North East	North West	South East	South West	West Midlands	Yorkshire and the Humber
Electrotechnical	3930	4%	4%	5%	2%	8%	4%	3%	1%	4%	3%
Engineering	3500	47%	49%	36%	35%	53%	54%	42%	41%	51%	47%
Construction	2775	9%	6%	11%	26%	10%	10%	7%	5%	13%	8%
Children's Care Learning and Development	2570	22%	21%	25%	20%	44%	24%	18%	20%	23%	19%
Business Administration	2350	23%	18%	16%	14%	28%	24%	15%	22%	25%	24%
Customer Service	2165	12%	13%	13%	6%	14%	12%	10%	13%	12%	11%
Hospitality and Catering	1850	9%	9%	5%	2%	11%	9%	8%	9%	10%	10%
Hairdressing	1410	7%	6%	4%	9%	12%	8%	9%	3%	9%	5%
Accountancy	1335	69%	60%	44%	32%	82%	85%	57%	87%	64%	83%
MES Plumbing	1300	2%	3%	4%	0%	4%	2%	1%	1%	3%	1%
Health and Social Care	1175	36%	25%	12%	60%	51%	43%	20%	25%	47%	32%
Automotive Industry	1125	4%	2%	3%	7%	4%	4%	7%	4%	4%	3%
Vehicle Maintenance and Repair	950	4%	4%	10%	3%	0%	5%	4%	2%	10%	2%
Dental Nursing	520	19%	16%	0%	7%	19%	24%	9%	15%	24%	22%
Sporting Excellence	470	22%	26%	17%	11%	28%	25%	20%	40%	17%	19%
Communications Technologies (Telecoms)	470	41%	25%	34%	15%	13%	44%	17%	64%	39%	22%
Travel Services	435	6%	5%	8%	4%	5%	10%	4%	6%	7%	7%
Active Leisure and Learning	305	18%	12%	21%	38%	43%	14%	12%	22%	8%	24%

6.4 Progression by framework

In Table 28 progression rates and delivery of higher education are examined for the 2005-06 cohort. Both immediate and seven year higher education tracking results are presented showing for example, that when tracked longitudinally the Engineering cohort rate increased from 37.2% to 47.3%. Advanced apprentice progression rates on a

Sporting Excellence programme increased substantially when tracked for seven years from 7.5% to 21.5%. The table also allows an exploration of delivery by framework. It shows, for example, that the majority of Customer Service apprentices who enter higher education go to a university, as do Hospitality and Catering apprentices. Meanwhile, Accountancy and Engineering apprentices go to a FE college to study at a higher level.

Table 28: 2005-06 advanced level apprentices by framework (first time entrants)

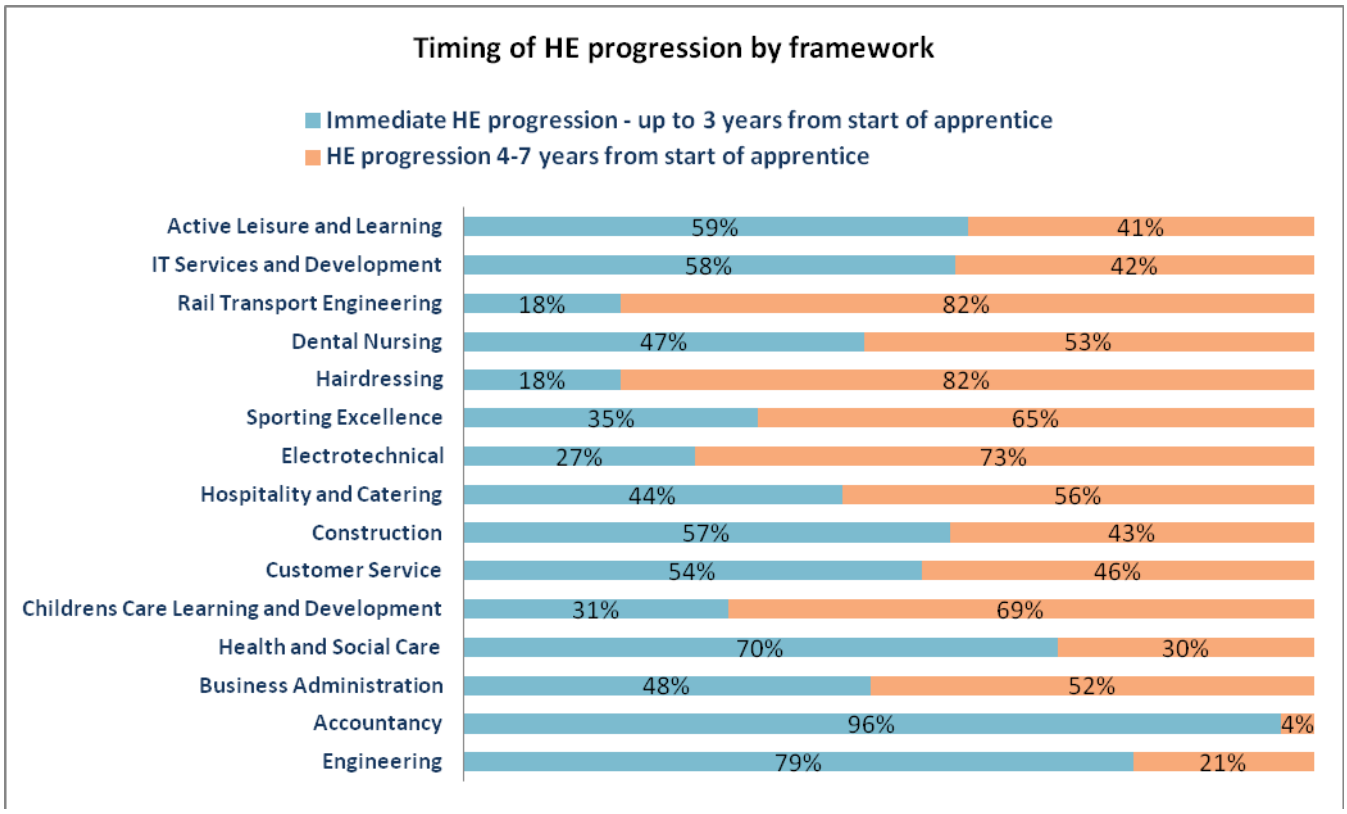
Framework	Tracked population				Delivery		
	Total tracked population	% of tracked population	% immediate HE entry	% total HE (tracked for 7 yrs)	% in HE in FE	% in non-prescribed HE	% in university
Electrotechnical	4005	12.0%	1.0%	3.7%	40.8%	4.1%	55.1%
Engineering	3550	10.7%	37.2%	47.3%	59.6%	1.1%	39.3%
Construction	2795	8.4%	5.1%	8.9%	32.4%	2.0%	65.6%
Children's Care Learning and Development	2570	7.7%	6.1%	22.1%	18.5%	8.9%	72.5%
Business Administration	2375	7.1%	10.8%	22.7%	21.0%	13.6%	65.4%
Customer Service	2190	6.6%	6.5%	12.0%	11.4%	6.1%	82.6%
Hospitality and Catering	1870	5.6%	3.8%	8.7%	13.0%	4.3%	82.7%
Hairdressing	1425	4.3%	1.3%	7.2%	30.1%	17.5%	52.4%
Accountancy	1350	4.1%	66.6%	69.4%	0.3%	94.9%	4.8%
MES Plumbing	1320	4.0%	0.5%	2.3%	22.6%	12.9%	64.5%
Health and Social Care	1185	3.6%	25.1%	36.0%	1.6%	6.6%	91.8%
Automotive Industry	1125	3.4%	2.1%	4.4%	28.6%	20.4%	51.0%
Vehicle Maintenance and Repair	965	2.9%	2.0%	4.3%	36.6%	19.5%	43.9%
Dental Nursing	520	1.6%	9.0%	19.2%	7.0%	22.0%	71.0%
Sporting Excellence	485	1.5%	7.4%	21.5%	18.3%	1.9%	79.8%
Communications Technologies (Telecoms)	470	1.4%	18.1%	41.2%	22.8%	0.5%	76.7%
Travel Services	445	1.3%	2.7%	6.5%	6.9%	0.0%	93.1%
Heating, Ventilation, Air Conditioning & Refrigeration	435	1.3%	0.5%	4.2%	33.3%	0.0%	66.7%
IT Services and Development	405	1.2%	10.1%	17.5%	32.4%	0.0%	67.6%
Gas Industry	330	1.0%	0.9%	4.0%	23.1%	0.0%	76.9%
Active Leisure & Learning	305	0.9%	10.5%	17.6%	14.8%	3.7%	81.5%

6.4.1 Framework – timing of progression

The chart in Figure 8 illustrates differences in timing of entry to higher education at framework level and clearly differentiates those frameworks where learners tend to enter higher education immediately rather than later (4-6 years on). Many more Accountancy, Engineering and Health & Social Care advanced level apprentices enter higher education immediately than those who enter higher education later. This is not the case for advanced

level apprentices on a Children's Care Learning & Development, Electrotechnical or Hairdressing frameworks where the majority enter higher education some years after starting their advanced level apprenticeship.

Figure 8: Framework and timing of higher education entry



6.4.2 Mode and framework

Section 4.8 showed that overall, the majority of apprentices continue on with part-time study when they progress to higher education, presumably many continuing to study while in work. However, across the tracked cohort years the proportion entering full-time study has grown (from 19.8% in 2005-06 to 31.5% in 2009-10). Clearly, those advanced level apprentices who go on to study higher education on a full-time basis have decided to make a life change, going from employment with part-time study to full-time study. This is explored further by examining the relationship between framework and mode of study.

Table 29 shows that Health & Social Care students are more likely to study full-time than part-time, (this will reflect progression into Nursing) thus making the move from employment and part-time study to full-time study. This progression pattern is also observed in advanced level apprentices on a Sporting Excellence and Active Leisure & Learning frameworks. In contrast, students on Engineering, Accountancy and Construction frameworks are more likely to continue to study part-time most likely while still in employment.

Table 29: Framework and mode of study

Framework	Full-time	Part-time	Sandwich	Grand total
Engineering	9.1%	90.2%	0.7%	100.0%
Accountancy	2.9%	96.6%	0.5%	100.0%
Business Administration	25.9%	72.1%	2.1%	100.0%
Health and Social Care	79.2%	19.6%	1.2%	100.0%
Children's Care Learning and Development	33.7%	66.1%	0.3%	100.0%
Customer Service	37.5%	58.0%	4.5%	100.0%
Construction	23.7%	74.7%	1.6%	100.0%
Communications Technologies	26.4%	73.6%	0.0%	100.0%
Children's Care Learning and Development	29.2%	70.8%	0.0%	100.0%
Hospitality and Catering	40.6%	55.0%	4.4%	100.0%
Electrotechnical	24.0%	71.9%	4.1%	100.0%
Sporting Excellence	67.0%	26.2%	6.8%	100.0%
Hairdressing	37.0%	63.0%	0.0%	100.0%
Dental Nursing	51.0%	46.9%	2.0%	100.0%
Rail Transport Engineering	7.9%	92.1%	0.0%	100.0%
IT Services and Development	28.2%	67.6%	4.2%	100.0%
Active Leisure and Learning	68.5%	29.6%	1.9%	100.0%

6.5 Progression and type of apprenticeship provider

Providers of advanced level apprentice frameworks are classified by type and the chart in Figure 9 displays a breakdown of the tracked population by provider type alongside the higher education progression rate by provider type. Private Training Providers had the highest number of advanced level apprentices, accounting for around half of all apprentices in 2005-06 whilst FE colleges had just under a quarter share of the cohort. Despite having the lowest share of advanced level apprentices, the Public Sector had the highest higher education progression rate where 37% entered higher education. Private Training Providers and FE colleges had a similar progression rate.

Figure 9: Provider breakdown for the 2005-06 cohort

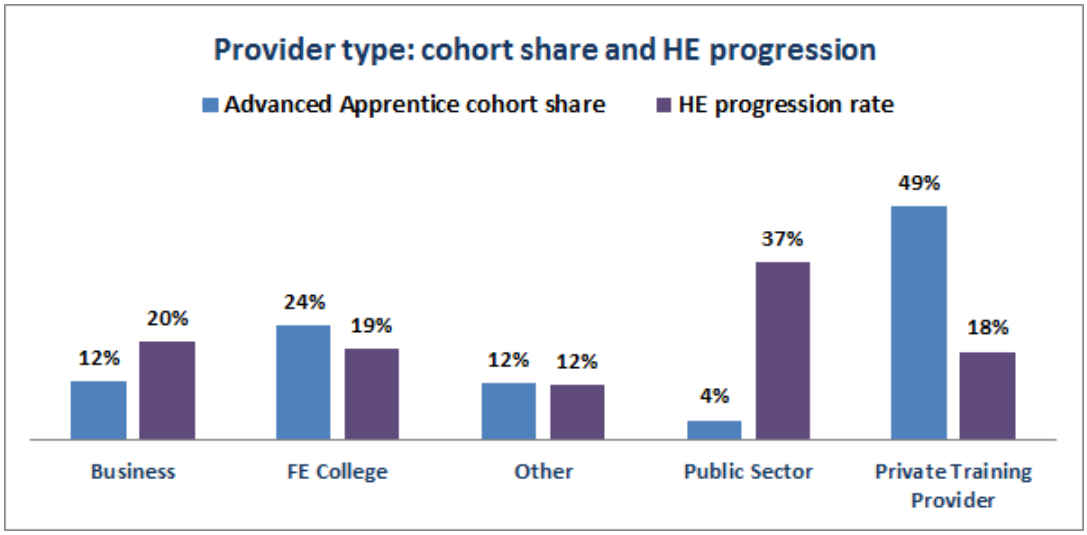


Table 30 shows both immediate progression rates and longitudinal progression rates by provider type. For example, high proportions of apprentices from the Public Sector continue to progress over time where the rate jumps from 19.7% for immediate progression to 37.3% when tracked for seven years. In comparison, apprentices attending an FE college progress at a rate of 19.2% (with 13.4% progressing immediately) showing that although apprentices do continue to enter higher education over time, they do so to a lesser degree than apprentices from the Public Sector. A delivery breakdown in the same table shows varying patterns of progression dependant on delivery. The majority of apprentices from the Public Sector who progress, go on to University delivered higher education. FE college apprentices are more likely to remain in FE colleges for their higher education to study both non-prescribed higher education and higher education in FE.

Table 30: Higher education progression by type of provider for 2005-06 advanced level apprentice cohort

Provider type	Total higher education Progression rate			Delivery breakdown (overall progression over 7 years)	
	Overall higher education progression	Immediate progression		Prescribed HE in FE	Non-prescribed HE in FE	University
Businesses (Direct Grant)	20.5%	12.9%		41.1%	9.9%	49.0%
FE College	19.2%	13.4%		25.9%	24.7%	49.4%
Other	11.5%	7.0%		31.0%	8.8%	60.2%
Public Sector	37.3%	19.7%		16.4%	9.7%	73.9%
Private Training Provider	18.5%	11.1%		27.0%	21.6%	51.4%
Unknown	15.5%	9.4%		10.5%	5.3%	84.2%
Grand total	18.8%	11.7%		28.0%	18.8%	53.2%

*Overall progression = seven years tracked from apprentice start, ** Immediate progression = three years tracked from start

6.6 Course level and framework

Those frameworks with a higher education entrant number of 50 and above are shown in Table 31 alongside a higher education course level breakdown. Clearly, higher education course type varies by framework and is influenced by the ease of access to higher education pathways.

78% of Engineering advanced level apprentices progressed to *Other Undergraduate* higher education programmes and the majority went on to HNC programmes.

The highest proportion of advanced level apprentices in the Children's Care Learning and Development framework progressed to foundation degree courses (52%) compared to only 3% of those on a Health and Social Care framework. The majority of Health and Social Care students progressed to OUG programmes and this is likely to have changed for later cohorts with the move towards Nursing degree programmes.

Those students on a Sporting Excellence and Active Leisure and Learning frameworks were more likely to progress to a degree than students on other frameworks. For example, around half progressed to a first degree compared to just 12% of Construction advanced level apprentices.

Table 31: 2005-06 advanced level apprentice initial entrants by framework and course type

Framework	HE entrants	First degree	Foundation degree	NVQ	OUG	HND	Grand total
Engineering	1675	6.4%	12.5%	1.1%	78.3%	1.7%	100.0%
Accountancy	940	2.6%	0.1%	94.9%	2.5%	0.0%	100.0%
Business Administration	520	34.4%	12.0%	13.9%	38.9%	0.8%	100.0%
Children's Care Learning and Development	455	18.6%	51.9%	9.2%	20.2%	0.2%	100.0%
Health and Social Care	420	13.3%	3.6%	6.6%	75.8%	0.7%	100.0%
Customer Service	260	44.4%	14.6%	6.1%	33.3%	1.5%	100.0%
Construction	250	12.0%	13.2%	2.0%	57.6%	15.2%	100.0%
Communications Technologies	190	37.7%	23.6%	0.5%	36.1%	2.1%	100.0%
Hospitality and Catering	160	48.4%	14.0%	4.5%	28.0%	5.1%	100.0%
Electrotechnical	150	20.4%	13.6%	4.1%	57.1%	4.8%	100.0%
Sporting Excellence	105	51.9%	32.7%	1.9%	11.5%	1.9%	100.0%
Hairdressing	100	25.3%	7.1%	18.2%	49.5%	0.0%	100.0%
Dental Nursing	95	12.8%	3.2%	23.4%	60.6%	0.0%	100.0%
Rail Transport Engineering	80	9.2%	7.9%	0.0%	81.6%	1.3%	100.0%
IT Services and Development	70	25.7%	51.4%	0.0%	20.0%	2.9%	100.0%
Active Leisure and Learning	50	51.9%	23.1%	3.8%	17.3%	3.8%	100.0%

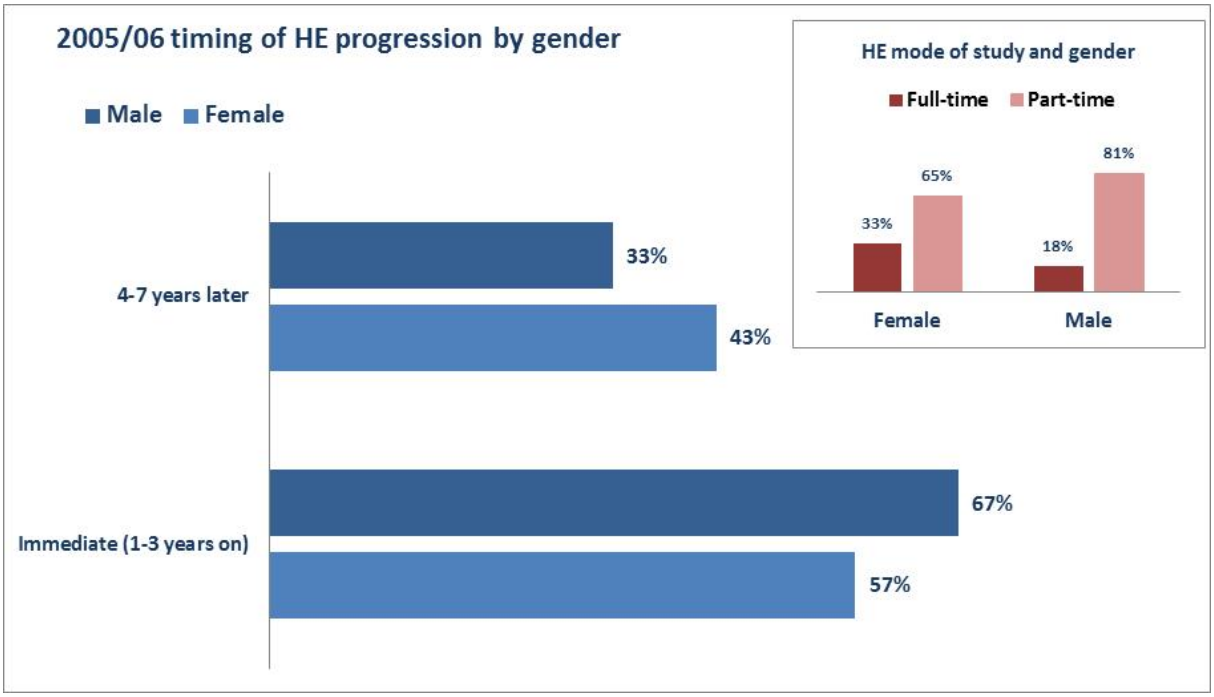
6.7 Progression and gender

In Section 3.1, a gender breakdown of the five tracked cohorts was presented and showed that the number of female advanced level apprentices tracked doubled between 2005 and 2009 while the number of males grew to a lesser extent with 28% growth. Section 4.3 showed that despite this substantial growth in numbers the rate of HE progression for females is only slightly higher than males with no significant difference. In the next table, we explore gender, timing of progression and mode of study.

6.7.1 Timing of higher education entry by gender

Females were much more likely to progress to higher education later than males. The chart in Figure 10 also shows that a higher proportion of females who progress onto higher education studied on a full-time basis than males who entered higher education.

Figure 10: Higher education qualification aim and gender breakdown of the 2005-06 advanced level apprentice cohort



6.8 Disadvantaged profile of advanced level apprentices and progression breakdown

Section 4.5 compared the 2005-06 and the 2008-09 cohorts using POLAR3. In this section the disadvantaged profile of the 2005-06 cohort is analysed in more detail.

The home postcodes of advanced level apprentices were used to classify learners using indicators of educational disadvantage. The HEFCE POLAR2 and POLAR3 (HEFCE, 2010) (HEFCE, 2012) were used as they classify neighbourhoods using higher education participation. POLAR3 classifies neighbourhoods by quintiles ordered from Q1, those

areas with very low higher education participation rates to Q5, those with very high rates of HE participation.

In a HEFCE pilot study of characteristics of England local areas, 8% of all entrants were classified as POLAR2 Q1 and 15% POLAR2 Q2. Furthermore, an analysis of young UCAS accepted applicants in 2011 showed that only 11% were classified as POLAR2 Q1 and 16% Q2. Table 32 shows that 22% of advanced level apprentices who entered HE are classified as POLAR2 Q1 and 24% POLAR2 Q2, indicating that the advanced level apprentice higher education entrant population has a higher proportion of POLAR2 quintile 1 and 2 learners than the general higher education population. (NB: POLAR2 is used to profile the tracked population to make comparisons with other national studies).

POLAR3 is used to profile students and explore progression by POLAR3 quintile. The recent HEFCE POLAR3 study provides an up to date comparison of national progression rates.

Table 32 presents progression rates at POLAR3 group level and shows that the advanced level apprentice rates of progression to higher education are not significantly different according to POLAR profile. For example, 10% of Quintile 1 advanced level apprentices progressed to higher education immediately compared to 13% of Quintile 5 apprentices. Similarly, although seven year progression rates for advanced level apprentices living in a quintile 5 area are higher, the gap is not substantial. This is different from the general young population; the HEFCE POLAR3 study found that the participation rate for POLAR3 Q1 18-19 year olds was 16.1% and for POLAR3 Q5 learners around 57.6%, a substantial gap between the two groups. The table also shows similar timing of entry by POLAR profile.

This study shows that advanced level apprentices are less likely to progress to higher education than their non-advanced level apprentice peers but this is not surprising given that advanced level apprentices are already in employment, earning a wage and one of the most likely barrier to progression is the relative lack of availability of flexible pathways that will allow a combination of part-time higher education study with working.

Table 32: Progression rates of 2005-06 advanced level apprentice cohort by POLAR3 profile

POLAR 3	% of HE entrant population		HE progression rates		Timing of entry (of all HE entrants)	
			Immediate HE rate	7 years HE progression rate	Immediate (1-3 years on)	4-7 years later
Q1 - Very low HE participation	**22%**		**10%**	**16%**	62%	38%
Q2	**24%**		**12%**	**19%**	60%	40%
Q3	**21%**		**12%**	**19%**	63%	37%
Q4	**19%**		**12%**	**19%**	63%	37%
Q5 - High HE participation	**15%**		**13%**	**20%**	64%	36%

6.8.1 Breakdown by POLAR3 and qualification aim

The POLAR3 profile of two POLAR3 groups, quintile 1 and quintile 5, by qualification aim, can be presented in Table 33. These results show a difference in the qualification type by advantage-disadvantage group where advanced level apprentices living in a POLAR3 Q1 area less likely to be studying a First degree than their Q5 peers but much more likely to be studying an NVQ at Level 4.

Table 33: Qualification type and POLAR3 quintile comparison

POLAR3	2005-06 advanced level apprentice HE entrants					
	First degree	Foundation degree	NVQ	OUG	HND	Grand total
Q1 - Very low higher education participation	14.9%	13.8%	21.4%	48.4%	1.5%	100.0%
Q2	19.5%	15.0%	18.4%	45.6%	1.5%	100.0%
Q3	17.5%	15.7%	19.4%	45.4%	2.0%	100.0%
Q4	17.9%	14.2%	19.8%	45.5%	2.5%	100.0%
Q5 - High higher education participation	19.1%	15.4%	15.5%	47.3%	2.7%	100.0%
Grand total	**17.8%**	**14.9%**	**19.0%**	**46.4%**	**2.0%**	**100.0%**

6.8.2 Breakdown by framework and POLAR3

Progression rates of POLAR3 groups and frameworks vary: students on an Accountancy framework who live in a POLAR3 Q1 area are more likely to progress to higher education than their framework peers who live in a POLAR3 Q5 area. In general, it appears that although the overall progression rates of POLAR3 groups is similar for advanced level apprentices (Table 32), this is not the case at framework level and this evidence suggests that students on a few frameworks who live in disadvantaged areas are just as likely, or more likely to progress than their framework peers who live in advantaged areas.

Table 34: Framework and POLAR3 progression

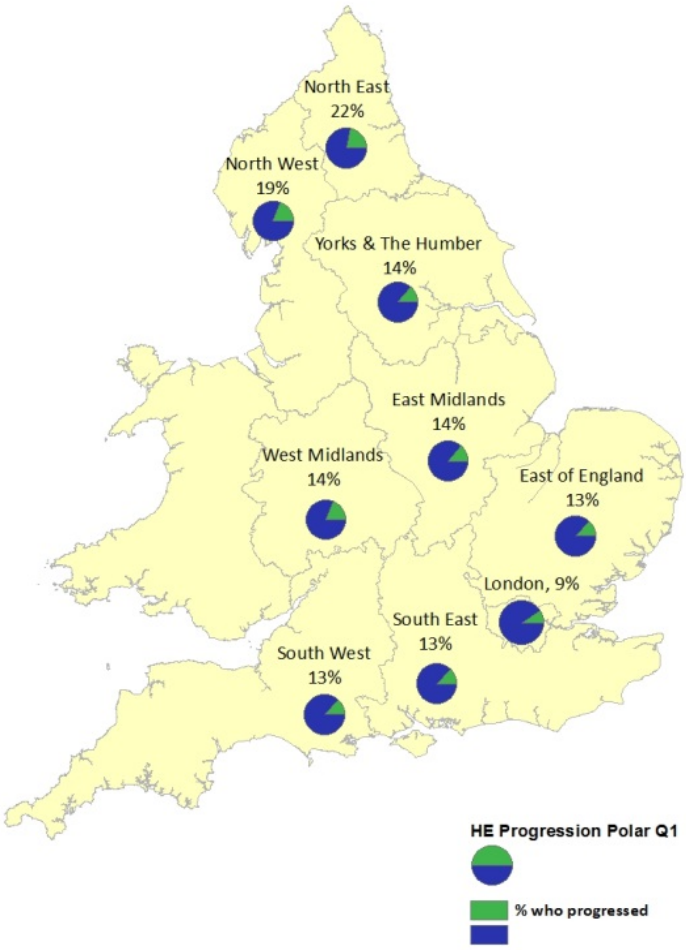
Framework	Q1 % higher education rate	Q5 % higher education rate	Difference in higher education progression rates between Q1 and Q5
Engineering	40.1%	51.6%	11.5%
Accountancy	71.6%	61.6%	-10.0%
Business Administration	22.4%	25.0%	2.6%
Health and Social Care	32.9%	39.6%	6.8%
Customer Service	9.4%	12.9%	3.5%
Construction	6.0%	13.6%	7.6%
Children's Care Learning and Development	6.2%	11.8%	5.6%
Hospitality and Catering	5.2%	8.5%	3.3%
Electrotechnical	2.0%	4.8%	2.8%
Sporting Excellence	16.0%	22.6%	6.5%

Framework	Q1 % higher education rate	Q5 % higher education rate	Difference in higher education progression rates between Q1 and Q5
Hairdressing	6.1%	7.1%	1.0%
Dental Nursing	14.6%	15.5%	0.9%
IT Services and Development	22.2%	15.7%	-6.5%

6.8.3 Region by POLAR3 group and higher education progression

Figure 11: Map showing regional higher education progression of disadvantaged advanced level apprentices

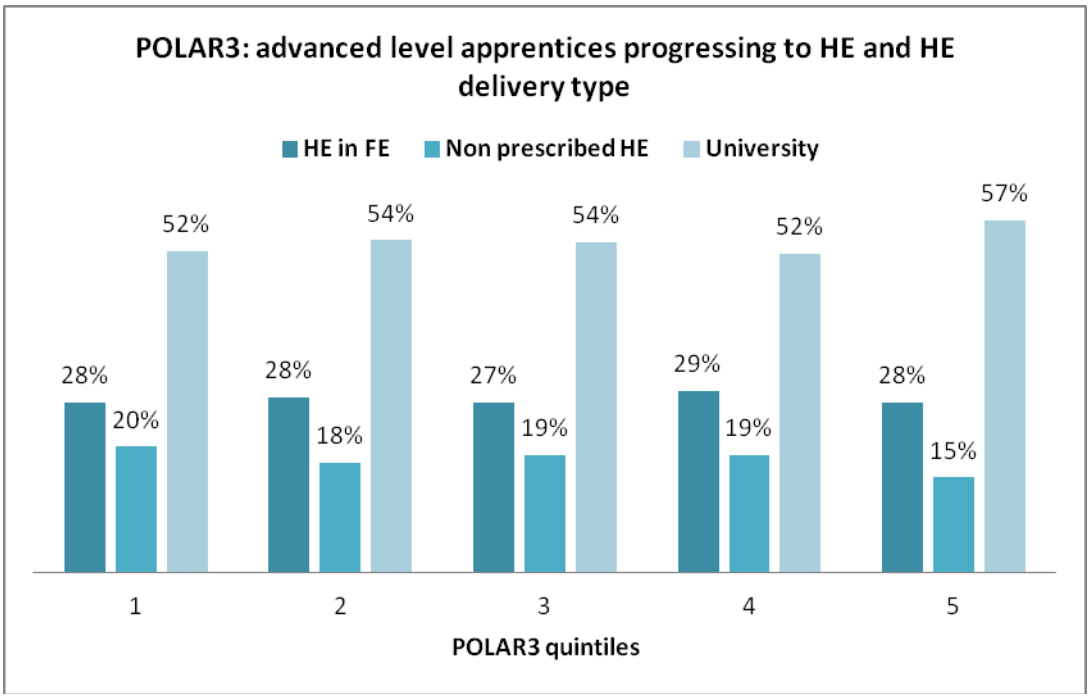
The map in Figure 11 illustrates that disadvantaged advanced level apprentices living in the North East are much more likely to progress to higher education than their counterparts in London. 20% of students living in a disadvantaged in the North East progress to higher education compared to 8% of students who live in a disadvantaged area in London.



6.8.4: Delivery of higher education provision and POLAR3 comparison

Figure 12 shows that a higher proportion of advanced level apprentice entrants to university delivered courses are classified as POLAR3 Q5 (advantaged) than Q1 (disadvantaged), 57% compared to 52%. The converse is found for non-prescribed higher education programmes delivered in FE where 21% entrants are Q1 compared to 15% classified as Q5. Similar proportions of both quintiles are found with higher education in FE programmes.

Figure 12: Delivery of higher education provision and POLAR3 quintiles



6.9 Higher education subject areas

Disaggregation of higher education subject areas by framework reveals the extent to which advanced level apprentices continue their studies at higher education level in the same subject area, but also gives an indication of where advanced level apprentices switch subject areas. Only those higher education subject areas with higher numbers of entrants are shown in Table 35.

For example, it shows that around half of those on an Accountancy framework continue their studies in this area and a further 16% remain studying business related higher education subjects. The majority of those on an Engineering framework go on to study engineering in higher education whilst only 21% on an Administration framework study business subjects in higher education, with the remainder studying a mix of higher education subjects. 11% of students on a Travel and Tourism framework went on to study a completely different higher education subject, Nursing, and an additional 11% went onto Teaching.

Table 35: Relationship between advanced level apprenticeship frameworks and higher education subject areas

Framework	Same subject area in Prescribed higher education	% of total progressed
Accounting and Finance	(N4) Accounting	49%
	(N9) Others in business & administrative studies	8%
	(N1) Business studies	8%
	(Y0) Combined	5%
	(G1) Mathematics	5%
Administration	(N1) Business studies	21%
	(Y0) Combined	10%
	(N2) Management studies	8%
	(B7) Nursing	5%
	(C8) Psychology	4%
Building and Construction	(K2) Building	41%
	(N2) Management studies	14%
	(H2) Civil engineering	10%
	(H1) General engineering	5%
	(K0) Broadly-based programmes within architecture, building & planning	2%
Child Development and Well Being	(X3) Academic studies in education	49%
	(L5) Social work	8%
	(B7) Nursing	7%
	(X1) Training teachers	6%
	(Y0) Combined	5%
Engineering	(H6) Electronic & electrical engineering	28%
	(H3) Mechanical engineering	24%
	(H1) General engineering	19%
	(H7) Production & manufacturing engineering	10%
	(Y0) Combined	2%
Health and Social Care	(B7) Nursing	71%
	(L5) Social work	6%
	(Y0) Combined	5%
	(B9) Others in subjects allied to medicine	3%
	(N1) Business studies	2%
Sport, Leisure and Recreation	(C6) Sports science	43%
	(N1) Business studies	5%
	(C8) Psychology	4%
	(X1) Training teachers	3%
	(N8) Hospitality, leisure, tourism and transport	3%
Travel & Tourism	(N1) Business studies	11%
	(Y0) Combined	11%
	(X1) Training teachers	11%
	(B7) Nursing	9%
	(N8) Hospitality, leisure, tourism and transport	8%

7. Conclusions

The roll on, roll off nature of advanced level apprentice study means that timing of higher education progression for these work based learners differs from other students studying a Level 3 qualification. A small proportion of advanced level apprentices already had prior higher education experience and had either started a higher education qualification but not finished, or achieved an higher education qualification before starting an advanced level apprenticeship framework. By identifying first time entrants to higher education and tracking their progression over time, a depth of understanding has been gained about patterns of progression.

Longitudinal tracking of the 2005-06 cohort (first time higher education entrants) tracked for seven years showed that 18.8% of advanced level apprentices progressed to higher education. There are differences at region and framework level, an indication that clear pathways to accessible provision are crucial to work-based learners entering higher education. Although 64% of learners who progress to higher education do so within three years of the start of their advanced level apprenticeship, there are still significant numbers progressing four to seven years afterwards.

This study examined where advanced level apprentices chose to study and revealed the important role that FE colleges have to play in delivering higher education for these part-time work based learners. However, trends reveal that a higher proportion of advanced level apprentices are choosing to move to full-time study than in earlier years and with this move, universities have increased their share of delivery of higher education to advanced level apprentices.

Trends show that the number of actual higher education entrants has increased from 3,900 for the 2005-06 cohort to 5,095 for the 2009-10 cohort however, against a substantial rise in advanced level apprentice cohort populations, higher education progression rates actually dipped between the 2005-06 and 2009-10 cohorts. The lower progression rates of a substantially higher number of 25+ apprentices in 2009-10 was a significant factor here. The analysis also highlights a number of patterns including a decline in *OUG* study (particularly HNCs) and changes in the HE progression rates of apprentices in Engineering and in Health and Social Care. This may also be compounded by the loss of Lifelong Learning Networks and Aimhigher by 2011.

It is apparent that a group of students do not continue on the same career paths as their apprenticeship framework. Some students follow the same subject area of study as their advanced level apprenticeship framework but there are others who apparently decide to opt for a different career and study an unrelated higher education subject and this often leads to a transfer to full-time study.

Around half of the 2009-10 cohort of advanced level apprentices had previously been on an intermediate apprenticeship at Level 2. Indeed, for technical based frameworks progression from intermediate level is much higher. In Construction for example, the majority of students progress from intermediate level to advanced level apprenticeship. The higher education tracking study showed that 8% of these progressed to higher education within three years of starting their advanced level apprenticeship. This longitudinal view of apprentice study illustrates the importance of smooth progression

pathways evidenced by the dominance of progression in Accountancy, Engineering and Children's Care Learning and Development frameworks. Accountancy higher apprentice frameworks take this one step further and show progression all the way from intermediate to advanced level and to higher apprenticeship level.

This study provides an ongoing baseline for apprentice progression to higher education, particularly useful given the changing landscape of apprenticeships with increasing populations and the expansion of higher apprenticeships. It is also useful as a baseline for exploring progression patterns with the introduction of fees in 2012-13 and a future update can examine the effect of increased fees on progression as apprentices are tracked to 2012-13 higher education datasets.

As some FE colleges expand their higher education provision and universities continue to work to widen participation, the information in this study helps to illustrate the opportunities available to increase the progression rate of work-based learners on apprenticeship frameworks. In sectors where there are clear pathways there are lessons to be learned in particular for higher apprenticeships. By fostering a culture of progression which is supported by access and funding, progression for future apprentices in a range of sectors could be a viable and desirable option for the employee, employer and the economy.

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9. Glossary

Apprenticeship levels

Intermediate apprentice(ship)	Apprenticeship framework involving study at Level 2
Advanced level apprentice(ship)	Apprenticeship framework involving study at Level 3
Higher apprentice(ship)	Apprenticeship framework involving study at Levels 4 and 5

Apprenticeship providers

Business (Direct Grant)	Large companies who are directly funded to deliver apprenticeships in-house
FE college	FE colleges that provide the apprenticeship training for employers
Public Sector	Mainly Local Authorities and NHS Trusts that provide apprenticeships
Private	Private training organisations that provide the apprenticeship training for employers
Other	Mainly voluntary sector and other not for profit organisations that provide apprenticeships

Higher education delivery types

Prescribed higher education	Higher education programmes until 2012 funded by HEFCE, the NHS and Teaching Agency that are delivered by Universities or FE colleges e.g. degree, foundation degree, HNC-HND and Dip. higher education
Non-prescribed higher education	Level 4 and 5 programmes funded by the Skills Funding Agency (and previously the LSC), eg. NVQ Level 4 and professional qualifications delivered in FE colleges
Higher education in FE	Usually refers to prescribed higher education delivered in FE colleges

Higher vocational educat*i*on	Recent term used to include all the higher education (both prescribed and non-prescribed) delivered in FE colleges
HEFCE	Higher Education Funding Council for England
HESA	Higher Education Statistics Agency
ILR	Individualised Learner Record
LSC	Learning and Skills Council
OUG	*Other Undergraduate* programmes, e.g. Certificate-Diploma in higher education
POLAR	Participation of Local Area - a classification system devised by HEFCE to classify neighbourhoods in terms of young higher education participation rates. It refers to relative deprivation
POLAR Quintiles 1 - 5	POLAR Quintile 1 covers neighbourhoods with very low higher education participation rates and POLAR Quintile 5 covers neighbourhoods with very high higher education participation rates
SFA	Skills Funding Agency

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