

# Achievement, Progression and Labour Market Impact of BTEC Qualifications: An Analysis Using the 11th Youth Cohort Study — A Summary

## Introduction

Given the importance of BTEC to both the 14-19 and the Skills agenda and concerns about where it is best positioned in the future, we have been keen to do some substantive research to find out more about the impact and potential of BTEC qualifications generally. We therefore commissioned Steven McIntosh and Pamela Lenton from the Department of Economics at the University of Sheffield, both noted for their citations in recent Skills Reports such as the Leitch Report, to undertake some research for us. Firstly to look at the use of BTECs for progression purposes and then at the labour market returns on BTEC qualifications.

This paper is a summary of the first research project investigating how successful young people are in the achievement of BTECs, and what impact such achievement has on the likelihood of further study, or moving into employment.

Both reports can be found in full on the Edexcel website here. The summary of the other report can also be found there.

This summary looks at the answers to the following six questions:

1. Who does a BTEC qualification, in terms of personal characteristics, prior qualifications and family background?
2. What are the achievement rates after study for the qualifications began?
3. What do individuals do after completing their BTEC, in terms of progression to higher levels of education, or success in the labour market?
4. Using multivariate analyses what characteristics of individuals, their backgrounds, or their education are most strongly associated with attainment of BTEC qualifications?
5. Again, using multivariate analyses what is the impact of attainment on participation in further or higher education?
6. Again, using multivariate analyses what is the impact of attainment on labour market outcomes?

## Methodology and explanation of terms

For its research the Report uses data from the Youth Cohort Study (YCS). The data set followed a cohort of young people over the four years of their lives that followed the completion of compulsory education, from 16 through to 20. The four annual questionnaires (sweeps) began in the summer of 2001. The same sample of young people were contacted on four occasions at intervals of one year.

## Executive summary

---

### 1. Who does a BTEC qualification, in terms of personal characteristics, prior qualifications and family background?

The BTEC qualification is the most popular of the traditional vocational qualifications, although the newer NVQ qualifications are taken by more young people. Most students taking a BTEC course do so in full-time education.

### 2. What are the achievement rates after study for the qualifications began?

Over half the students beginning a BTEC National Diploma (Level 3) at 17 achieve one after two years. The achievement rate for the BTEC Firsts (Level 2) is not as high. Amongst those who do achieve at Level 2, however, there is evidence of significant progression onto a BTEC National Diploma by age 19.

### 3. What do individuals do after completing their BTEC, in terms of progression to higher levels of education, or success in the labour market?

Almost half of those originally studying for a BTEC National Diploma who were still in full-time education by age 19 had progressed to Higher Education. Amongst those who achieve the BTEC Firsts there is evidence of significant progression onto a BTEC National Diploma. In terms of labour market outcomes, most BTEC students who leave full-time education seem to find work; unemployment and inactivity rates are low.

### 4. What characteristics of individuals, their backgrounds, or their education are most strongly associated with attainment of BTEC qualifications?

Achievement rates are higher when individuals study in a place of education or as part of an apprenticeship, rather than when in employment. There is little evidence that personal or family background characteristics are important for explaining BTEC achievement. Obtaining 5 or more good GCSEs at school seems to be important for subsequent success on BTEC National Diplomas, though not on BTECs at the lower levels.

### 5. What is the impact of attainment on participation in further or higher education?

There is strong evidence that the acquisition of a BTEC qualification persuades students to continue to higher levels of education, even when controlling for background characteristics and original education choices. Individuals who acquire BTEC Firsts are more likely to still be in full-time education at age 19, relative to individuals whose highest qualification is below Level 2.

### 6. What is the impact of attainment on labour market outcomes?

Holding a BTEC National Diploma qualification is shown to significantly increase a student's chance of finding a job, at least as much as any other qualification. The same cannot be said of BTEC Firsts. However, evidence of a negative effect on employment chances is reduced when we consider how many move into apprenticeship placements within the employment category. BTEC Firsts are both associated with a higher probability of employment, by the time the student has reached age 20.

## Question 1

### Who does a BTEC qualification, in terms of personal characteristics, prior qualifications and family background?

*The BTEC qualification is the most popular of the traditional vocational qualifications, although the newer NVQ qualifications are taken by more young people. Most students taking a BTEC course do so in full-time education, although a small proportion are taken by young people in employment or in an apprenticeship. Overall, the typical BTEC student at age 17 is white, of either gender, has gained good GCSEs at age 16, is studying full-time for a National Diploma at a college of Further Education, is in good health and living with both parents who are in full-time employment.*

#### Of the cohort studied:

- Most are studying for their BTEC qualification in full-time education (94%) with the rest studying through an apprenticeship (4%) and through employer training (1%).
- Slightly more males (55%) than females are enrolled.
- The majority of BTEC students have been successful in their GCSE examinations; 59% have gained 5 or more A-C grades; 30% have gained between 1-4 A-C grades.
- There is large variation in prior attainment across the level of BTECs being studied.
- For those taking vocational courses BTEC is more popular than City and Guilds and RSA courses, but more students are taking an NVQ course.
- Nearly a quarter of BTEC students are also taking academic qualifications (8%, 13% and 2% for GCSEs, AS levels and A levels, respectively).
- About a fifth of BTEC students are in receipt of an EMA.
- BTEC students come from all socio-economic backgrounds.
- There is variation across type of BTEC qualification, with 1 in 3 of students on Nationals coming from a household with a professional head, compared to 1 in 5 of students studying for Firsts.
- Most students (83%) have parents who do not possess a degree level qualification.
- Three-quarters of students reside with both parents and over one-fifth live with a single parent.
- 11% of BTEC students are from a household where neither parent is employed.
- Students of the lower BTEC levels are more likely to reside in a more disadvantaged, in this case workless, household.
- Considering region, BTECs appear slightly more popular to students in the North West, South East and the West Midlands than other regions of England or Wales.

## Question 2

### What are the achievement rates after study for the qualifications began?

*Considering those who start out at age 17 studying for a National Diploma, there is little evidence of achievement one year later. However, two years later over half of these students have achieved a BTEC National Diploma. The achievement rate for the lower two BTEC qualifications is not as high, with 56% of original First Diploma, and 66% of original First Certificate students having failed to acquire a BTEC qualification two years later by the age of 19. Amongst those who do achieve at these levels, however, there is evidence of significant progression onto a National Diploma by age 19.*

#### What Sweep 1 BTEC students have achieved by Sweep 2

- Achievement levels in Sweep 2 should not be expected to be too high; many of those studying for a BTEC qualification in Sweep 1 are still studying in Sweep 2.
- Just over one-third (36%) of the BTEC qualifications obtained by Sweep 2 are First Diplomas. 28% achieve a First Certificate and 21% a National Diploma.
- The highest achievement rate is amongst those studying for a First Diploma in Sweep 1, around 40% of whom have attained a BTEC qualification a year later.
- Of those studying for a First Certificate in Sweep 1, 21% have acquired a BTEC qualification one year later. This is most likely to be a First Certificate, although almost as many have actually progressed and obtained a First Diploma by Sweep 2.
- Only 4.8% of National Diploma students have achieved their goal by the Sweep 2 survey. Most students are still studying at this point so this result is not a surprise.

#### What Sweep 1 BTEC students have achieved by Sweep 3

- By Sweep 3 over half of the National Diploma students have achieved their goal.
- The picture is not as good for the lower BTEC levels; 56% and 66% of First Diploma and Certificate students have failed to acquire any BTEC qualifications by Sweep 3.
- Amongst those who have achieved, there is evidence of good progression; of those who were studying for a First Diploma, 16% have acquired a National Diploma, 11% of those who were studying for a First Certificate have gained a National Diploma.

## Question 3

### What do individuals do after completing their BTEC, in terms of progression to higher levels of education, or success in the labour market?

*Almost half of those original BTEC National Diplomas students, who are still in full-time education at age 19, (representing 1 in 5 of all original National Diploma students) have progressed to Higher Education. Amongst those who achieve the lower BTEC qualifications there is evidence of significant progression onto a National Diploma. In terms of labour market outcomes, most BTEC students who leave full-time education seem to find work, unemployment and inactivity rates are low.*

#### What the Sweep 1 BTEC students are doing in Sweep 2

- Three-quarters of students are still in full-time education, there is variation across type of BTEC qualification because of the relative lengths of the BTEC courses.
- 16% of Sweep 1 students are employed at age 18; those who studied at lower levels are more likely to have moved into a job, a natural consequence of them being more likely to have left full-time education.

#### What the Sweep 1 BTEC students are doing in Sweep 3

- By age 19 around half of those who were studying for a BTEC at age 17 are now in employment or in an apprenticeship.
- 42% of Sweep 1 BTEC students are still in full-time education, while a minority are unemployed or inactive (10%).
- There is evidence of significant progression to higher levels of study amongst National Diploma students. Of those still in full-time education in Sweep 3, 44% are now studying for a degree at university.
- 8% of this group still in full-time education are studying for a Diploma in Higher Education, and 11% for an HND.
- Significant numbers of those studying for lower level BTECs have progressed to higher levels of BTEC study. 68% of First Diploma and 24% of First Certificate students still in full-time education are now studying for a National Diploma.

#### What the Sweep 1 BTEC students are doing in Sweep 4

- By Sweep 4 employment is the dominant economic activity, with over half of the original age 17 BTEC students now in a job by age 20.
- 39% are still in full-time education, particularly those who started out on a National Diploma course, quite a few of whom have progressed to Higher Education.
- Only around 6% of the original sample of BTEC students are unemployed or inactive at the age of 20.

## Question 4

### What characteristics of individuals, their backgrounds, or their education are most strongly associated with attainment of BTEC qualifications?

*Achievement rates are higher when individuals study in a place of education or as part of an apprenticeship, rather than when in employment. There is little evidence that any personal or family background characteristics are important for explaining BTEC achievement. Obtaining 5 or more good GCSEs at school seems to be important for subsequent success on BTEC National Diploma courses, though not on BTECs at the lower levels.*

- The numbers achieving First Diplomas and First Certificates were too low to allow robust statistical analysis separately for these qualifications. Therefore only the factors associated with the attainment of a National Diploma, where the numbers are larger, are considered.
- There are few statistically significant relationships.
- The probability of achieving a National Diploma qualification is higher if studying in full-time education or through an apprenticeship than if studying whilst in employment.
- Students are more likely to achieve a National Diploma in further education in an independent school or college, private training centre or Further Education College, relative to in a sixth form college. Not too much should be made of this result, however, since students are much more likely to study for a BTEC qualification in a college than in a sixth form college, so it is not surprising that they are also more likely to achieve BTEC qualifications in the former.
- Being in receipt of an Education Maintenance Allowance (EMA) is positively related to the probability of achieving a Level 3 BTEC, or any BTEC qualification, though in both cases it just fails to achieve statistical significance. Since the EMA has incentive payments built in when certain duration or achievement targets are attained, this motivation factor may be the reason for the higher achievement rate of EMA students. Alternatively, the receipt of the regular weekly payment may reduce the need for part-time working to supplement income, allowing more time for study.
- There is evidence that those students with higher GCSE scores are more likely to achieve a BTEC National Diploma, with the probability rising by about 3% if the student has either 5+ or 1-4 GCSEs at grade C or above.
- Family background seems to have little effect. There is some evidence that students who have an absent father are less likely to achieve any BTEC qualifications. To put a positive spin on the lack of statistically significant results, it could be argued that individuals from different social backgrounds do not have different achievement rates, so BTEC qualifications do not favour one social class above another.

## Question 5

### What is the impact of attainment on participation in further or higher education?

*Amongst those young people who do acquire a BTEC qualification, there is strong evidence that this acquisition persuades them to continue to higher levels of education, even when controlling for background characteristics and original education choices. Individuals who acquire a BTEC qualification at the lower levels are shown to be more likely still to be in full-time education at age 19, relative to individuals whose highest qualification is below Level 2. Approximately 1 in 3 First Diploma students progress to studying for a National Diploma, with this figure being just under 1 in 5 for First Certificate students. Students who acquire a National Diploma significantly increase their likelihood of participating in full-time education at both age 19 and 20.*

#### Impact of BTEC attainment on the probability of participating in full-time education at age 19

- Acquiring a BTEC qualification at any of the levels studied is strongly associated with progression in education; individuals who have previously acquired a BTEC qualification are 32-37% more likely to still be in education at age 19, compared to those whose highest qualification lies below Level 2.
- With the exception of academic Level 3 qualifications (the acquisition of A levels having a very large effect on the progression rate, mostly to degree level), the acquisition of BTEC qualifications as a highest qualification by age 19 has a larger impact on remaining in full-time education than any other qualification.
- It is possible that achievement of qualifications such as BTECs is also correlated with unobserved factors such as motivation or commitment. If we take this into account and ask the question, ‘conditional on having chosen to participate in full-time education at age 17, are individuals who have acquired a BTEC qualification more likely to be still participating at age 19, holding other characteristics constant?’ the results are still that this is indeed the case. Amongst individuals who were in full-time education at age 17, those who go on to acquire a BTEC qualification are 16-23% more likely to be still participating at age 19 than individuals whose highest qualification is below Level 2.
- The acquisition of BTEC qualifications has a significant effect on the decision to continue one’s education.

## Impact of BTEC attainment on the probability of participating in full-time education at age 20

- Amongst those who initially began in post-compulsory schooling at age 17, only the acquisition of a National Diploma amongst BTEC qualifications raises the probability of someone still being in full-time education at age 20, by 27 percentage points.
- Someone who achieved only a First Certificate is actually less likely to be in education at age 20, whilst First Diplomas and other BTEC qualifications have essentially a zero impact on the probability of studying at age 20.
- These results are not unexpected, however. By Sweep 4 individuals are in their fourth year after the end of compulsory schooling, and many who followed vocational courses will have acquired the qualifications they wanted by this age.
- Most people in full-time education at age 20 are therefore those in Higher Education, and it is National Diplomas that lead to progression into Higher Education for some.

## Question 6

### What is the impact of attainment on labour market outcomes?

*Amongst those young people who leave education, BTEC National Diploma qualifications are shown to significantly increase their chances of finding a job, at least as much as any other qualification. The same cannot be said of BTEC qualifications at lower levels, although any evidence of a negative effect on employment chances of such qualifications is reduced when we consider apprenticeship placements within the employment category, and is removed altogether by age 20.*

#### Impact of BTEC attainment on the probability of being in employment at age 19 amongst those who have left education

- This section looks at what benefits BTEC qualifications provide in respect of finding a job, amongst those individuals who have left full-time education.
- The BTEC National in particular can significantly help young people find a job. The probability of being in employment is 12 percentage points higher for someone with a BTEC National, compared to another similar person without the BTEC National.
- The achievement of BTEC qualifications except for National Diplomas is actually associated with lower likelihoods of employment, compared to individuals whose highest qualification is below Level 2.
- Although these other BTEC qualifications do not lead to jobs more than other qualifications do, they are more likely to lead into apprenticeships.

#### Impact of BTEC attainment on the probability of being in employment at age 20 amongst those who have left education

- By the age of 20, none of the BTEC qualifications are associated with a lower probability of employment, relative to individuals whose highest qualification is below Level 2.
- BTEC First Certificates and First Diplomas are now both associated with a higher probability of employment, particularly the former.
- The size of the National Diploma effect is larger than that of other Level 3 academic and vocational qualifications.