

The Labour Market Returns to BTEC Qualifications: An Analysis Using the UK Labour Force Survey — 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 second research project investigating whether the holding of BTEC qualifications improves people's labour market outcomes, in terms of the wage that they receive, and the chances of them finding 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 five questions:

1. What are the wage returns to BTEC qualifications for the working age population?
2. What are the effects of BTEC qualifications on the likelihood of employment?
3. What are the wage returns to BTEC qualifications by level of achievement at school?
4. What are the wage returns to BTEC qualifications for those aged under 30?
5. What are the wage returns to BTEC qualifications using specific comparison groups?

Methodology and explanation of terms

For its research, the Report uses data from the Labour Force Survey (LFS) and in particular a sample of full time employees only. The LFS is conducted quarterly with around 60,000 private households surveyed each quarter. The years chosen for this analysis were 1996, the first year when the full qualification range was reported on, 2001, the mid point year, and 2006, the most recent year when full data was available.

What is being compared is the wages of people with the same background characteristics and the same list of qualifications, except that one group has a BTEC qualification and the other group has not.

Executive summary

1. What are the wage returns to BTEC qualifications for the working age population?

A lot depends on the level of qualification.

At HND/C, the wage differential is high and has remained so for some time though it favours men more than women. For BTEC Nationals evidence of a significantly positive wage differential exists, though there is some evidence that it has declined over the last ten years. The value of the wage differential earned from BTEC Firsts has declined over the last ten years. This is in line with other vocational qualifications at Level 2 on the National Qualifications Framework.

2. What are the effects of BTEC qualifications on the likelihood of employment?

There are different effects for men and for women.

For men, BTEC Higher Nationals and BTEC Nationals are associated with higher likelihoods of employment, with some evidence that for BTEC Nationals the size of the impact has fallen slightly over the last decade. For women none of the BTEC qualifications at any level consistently achieved a positive effect on employment likelihoods in all three years studied, and only two instances of statistically significant effects are observed, these being for BTEC Nationals in 2006, and BTEC Firsts in 2001.

3. What are the wage returns to BTEC qualifications by level of achievement at school?

BTEC Higher Nationals and Nationals achieve very healthy wage returns, with the highest being amongst men who left school with few or no qualifications. However, BTEC Firsts do not attract a positive and significant return even for men who left school with no qualifications.

The results for women are more in line with what might be expected. BTEC Higher Nationals and BTEC Nationals lead to high wage differentials for all groups, with the highest occurring amongst the groups with the lowest level of school achievement. There were also large wage differentials for woman holding BTEC Firsts who have no school qualifications at all. BTEC First qualifications seem to have a relatively large effect on the wages of women who have left school with no qualifications at all.

4. What are the wage returns to BTEC qualifications for those aged under 30?

There is no evidence that BTEC qualifications are more valuable for younger than for older workers.

5. What are the wage returns to BTEC qualifications using specific comparison groups?

When comparing BTEC holders with people with no qualifications above Level 3, rather than with the whole of the non-BTEC group which include some highly qualified individuals, a positive estimated wage return for all the BTEC qualifications emerges.

Question 1

What are the wage returns to BTEC qualifications for the working age population?

Holding a Higher National Diploma or Certificate earns men a substantial wage differential in the labour market. This has stayed fairly constant over the last ten years. For women, the wage differential is smaller, though is still statistically significant. For BTEC Nationals evidence of a significantly positive wage differential exists, though there is some evidence that it has declined over the last ten years.

The value of wage differential earned from BTEC Firsts Diplomas and Certificates has declined over the last ten years, with no evidence of any positive wage differential remaining for men with these qualifications by 2006, and no statistically significant evidence for women either. Such results have been observed frequently in the literature with respect to other vocational qualifications at Level 2 on the NQF.

Males

- BTEC Higher Nationals have a substantial impact on the wages of men.
- The wage differential attached to HND/HNCs is the highest of all the qualifications studied (with the exception of academic qualifications 5+ GCSEs (C or above), 2+ A Levels and a first degree, plus professional qualifications). HND/HNCs attract a higher wage return than, amongst others, higher education diplomas and other HE qualifications below degree level, as well as teaching and nursing qualifications.
- It is therefore clearly a well-regarded qualification in the labour market, and has maintained its value across the ten years studied.
- The wage differential attached to the BTEC Nationals is slightly smaller, at 7.6% in 2006, though this still suggests a significant labour market impact.
- BTEC Nationals attract a higher wage differential than any other Level 3 vocational qualification considered. There is however, evidence that the wage differential has declined over the last decade. The fall is not dramatic, but is present.
- The wage returns to BTEC Firsts were not statistically significant. This is likely to be due to the smaller numbers in the data set reducing their statistical precision. There is no evidence for any positive impact of such qualifications on men's wages.
- None of the Level 1 or 2 vocational qualifications studied attracted a positive and statistically significant wage return with the exception of craft City and Guilds for men. This absence of wage returns to Level 2 vocational qualifications has been observed in numerous previous studies, and seems to be a persistent feature of the UK education system and labour market.

Females

- At HND/HNC level, the wage differential is smaller for women than for men. For women it was 5.3% in 2006.
- A similar figure of 5.1% is observed for the wage differential of BTEC Nationals with there again being some suggestion, as for men, that the labour market value of this qualification has declined over the last 10 years. The figures still suggest a significant labour market impact however.
- For the First Diploma, the pattern for women is similar to men. The wage differential was very respectable in 1996 at 9%. Since then however, no evidence can be found of a positive wage return to a BTEC First Diploma for women. The picture is different for the First Certificates. Although none of the estimated wage differentials for this qualification are statistically significant, the size of the wage returns have at least increased at each point at which they were observed, unlike their male Level 2 counterparts.

Question 2

What are the effects of BTEC qualifications on the likelihood of employment?

For men a similar pattern of results was observed as for the wage effects. BTEC Higher Nationals and BTEC Nationals are associated with higher likelihoods of employment, with some evidence that for BTEC Nationals the size of the impact has fallen over the last decade. These effects however, have not consistently been in evidence across the ten years. For women none of the BTEC qualifications at any level consistently achieved a positive effect on employment likelihoods in all three years studied, and only two instances of statistically significant effects are observed, these being for BTEC Nationals in 2006, and BTEC Firsts in 2001.

The largest labour market impact of qualifications, by far, is on the wage rate received once in work, rather than on the chances of finding work in the first place.

- This section considers the impact that qualifications, in particular BTEC qualifications, have on the likelihood of their holders being employed.
- The study reported the difference in the probability of being employed between BTEC and non-BTEC holders, holding constant other qualifications held, as well as the usual other personal characteristics, for men and women respectively.
- For men a similar pattern of results was observed as for the male wage effects. BTEC Higher Nationals and BTEC Nationals are associated with higher likelihoods of employment, with some evidence that for BTEC Nationals the size of the impact has fallen over the last decade.
- Considering the BTEC Firsts, there is some evidence of positive effects on the likelihood of being in employment, including one that is statistically significant for First Certificates in 1996, though these effects have not consistently been in evidence across the ten years.
- For women none of the BTEC qualifications at any level consistently achieved a positive effect on employment likelihoods in all three years studied, and only two instances of statistically significant effects are observed, these being for BTEC Nationals in 2006, and BTEC Firsts in 2001.
- Amongst the various qualifications, the ones that increase a person's employability the most are holding 5 or more good GCSEs.
- Most of the other qualification effects, if they exist at all, are of a similar order of magnitude to the HND/HNC effects. The reason for this is that with unemployment rates of 5 or 6%, most people who want a job have one whatever their qualifications, and thus the difference in employment rates between qualification groups is small.
- The largest labour market impact of qualifications, by far, is on the wage rate received once in work, rather than on the chances of finding work in the first place.

Question 3

What are the wage returns to BTEC qualifications by level of achievement at school?

BTEC Higher Nationals and Nationals achieve very healthy wage returns as expected, with the highest being amongst men who left school with no or few qualifications. Surprisingly, even amongst men who left school with no qualifications at all, there is still no evidence of a positive gain in wages following the acquisition of a BTEC First Diploma or Certificate.

The results for women are more in line with what might be expected. As usual, BTEC Higher Nationals and BTEC Nationals lead to high wage differentials for all groups, with the highest occurring amongst the groups with the lowest level of school achievement. There were also large wage differentials for woman holding BTEC Firsts who have no school qualifications at all. BTEC First qualifications seem to have a relatively large effect on the wages of women who have left school with no qualifications at all.

- The analysis in this section returns to a study of the wage impacts of BTEC qualifications, and disaggregates them by the level of qualifications achieved at school. BTEC qualifications may have more value for some groups than others. In particular, individuals who have obtained very good qualifications at school may receive less additional value from acquiring BTEC qualifications, particularly at the lower levels, than individuals who may not have achieved very highly at school.
- Although the aggregate results did not observe any impact of BTEC qualifications at Level 2, when the analysis is disaggregated some value in terms of higher wages may be observed for these qualifications amongst individuals with a low level of achievement at school.
- BTEC Higher Nationals and Nationals achieve very healthy wage returns as expected, with the highest being amongst men who left school with no or few qualifications.
- Moving to the lower levels, however, even amongst men who left school with no qualifications at all, there is still no evidence of a positive gain in wages following the acquisition of a BTEC First Diploma or Certificate.
- There is some evidence for positive wage effects from acquiring a BTEC First Diploma amongst those men who left school with some GCSEs (or equivalent amongst older workers) but who failed to achieve five or more at grade C or above.
- Why lower level BTECs should benefit these groups, but not the group who left school with no qualifications at all, is not immediately obvious.
- The results for women are more in line with what had been expected. As usual, BTEC Higher Nationals and BTEC Nationals lead to high wage differentials for all groups, with the highest occurring amongst the groups with the lowest level of school achievement.

- When we consider the women who hold no school qualifications at all, we observe large wage differentials to BTEC Firsts. Although these estimated effects just fail to achieve statistical significance, this is more likely to be because of small sample sizes due to fewer women holding these qualifications, rather than their true wage effects actually being zero. So BTEC First qualifications seem to have a relatively large effect on the wages of women who have left school with no qualifications at all.

Question 4

What are the wage returns to BTEC qualifications for those aged under 30?

There is no evidence that BTEC qualifications are more valuable for younger than for older workers.

- The analysis so far has considered all people of working age. Some of the BTEC qualifications on which the estimated wage differentials are based could therefore have been acquired many years ago. In this section only those aged under 30 were analysed. The analysis therefore just looks at qualifications that have been obtained relatively recently.
- The results reveal a similar pattern for the under 30s as for the working age population as a whole. For young men, only BTEC Higher Nationals and Nationals attract positive and statistically significant wage returns. For young women, the wage returns are, as usual, smaller, with only the HND/HNC qualification attracting a significant wage return. There is no evidence that BTEC qualifications are more valuable for younger than for older workers.

Question 5

What are the wage returns to BTEC qualifications using specific comparison groups

If we compare BTEC holders with people with no qualifications above Level 3, rather than with the whole of the non-BTEC group which include some highly qualified individuals, we see positive estimated wage returns for all the BTEC qualifications, with no evidence for the negative returns obtained for the BTEC Firsts in the earlier analysis. When an appropriate comparison group for the BTEC qualifications is therefore being used, there is evidence that BTEC qualifications at all level raise an individual's wages.

- The final piece of analysis in this report takes a closer look at who the non-BTEC group are, to whom the BTEC-holders are being compared. The interpretation of the estimated wage differentials is the difference in wages between someone with a BTEC and someone without. The group without a BTEC qualification will include some highly qualified individuals. These factors are taken into account statistically, but it could be that BTEC holders are simply fundamentally different to, for example, degree holders, in ways that could never be controlled for in this statistical analysis.
- This may be a particular problem for the lower BTEC qualifications, and may explain some of the confusing results observed for these qualifications. This piece of analysis therefore excludes anyone from the comparison group (ie the non-BTEC group) whose highest qualification is above Level 3.
- The results of doing this are positive estimated wage returns for all the BTEC qualifications, with no evidence for the negative returns obtained for the BTEC Firsts in the earlier analysis using the full comparison group. When an appropriate comparison group for the BTEC qualifications is therefore being used, there is evidence that BTEC qualifications at all levels raise an individual's wages.