

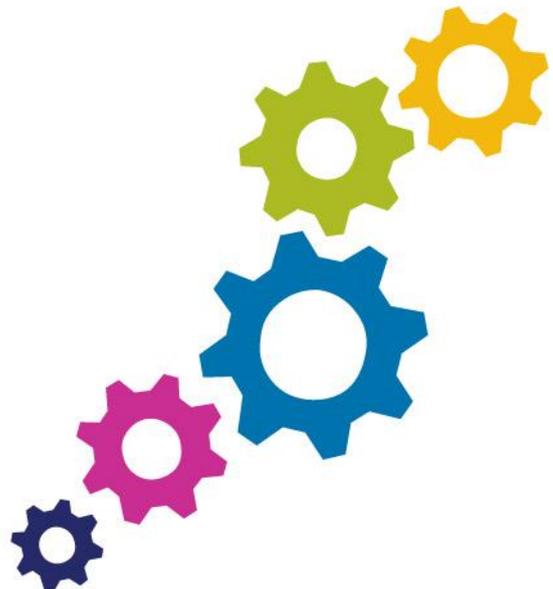


**Evidence for
Excellence in
Education**

Final Report

A literature review of the value of vocational qualifications

**National Foundation for Educational
Research (NFER)**



A literature review of the value of vocational qualifications

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Executive summary

The National Foundation for Educational Research (NFER) has carried out a small-scale rapid literature review of the value of vocational qualifications offered in the UK by the Joint Council for Qualifications (JCQ) members. The review was carried out February-April 2015 and sought to answer the following questions:

- How is the value of vocational qualifications defined?
- What is the reported value of vocational qualifications (e.g. benefits for the individual learner, business, and the economy)?
- Are there gaps in the research on the value of vocational qualifications, and if so, what further information would be useful to have for policy and practice?

The review is evidence-based so will be helpful for the JCQ in informing discussions with Government, regulatory funding bodies, and funding agencies about future investment in vocational qualifications. However, there are some limitations to the conclusions that can be drawn from a small-scale review.

Review methods

Parameters were agreed with JCQ members and restricted the review of literature to that with a focus on young people aged 14-25, published in English in the United Kingdom from the year 2009. A range of bibliographic databases were searched to find literature, as were the websites of key organisations and institutions. JCQ members also suggested key texts to include. Overall, 73 texts were sourced during searches. Each was scrutinised in order for the research team to make an independent 'best evidence' selection of 16 to be reviewed, based on relevance to the research questions and the quality of the evidence. Note that if certain qualifications or awarding bodies are mentioned more than others, it is because they have featured more in the shortlisted literature.

Overview of the studies included in the review

Most of the 16 shortlisted texts reported the value of vocational qualifications for learners' future employment (11) or earnings (ten). Six summarised the value in terms of progression to higher qualifications. Fewer studies explored the impact of vocational qualifications on learners' reduction in benefits, or on wider returns (including their health and well-being and participation in higher education) or on the value for the Exchequer in terms of public budget returns. Most studies provided 'strong' evidence, often based on robust secondary analysis of large-scale datasets or included large surveys and literature reviews which summarised evidence from robust studies.

Key findings

Overall, the literature review revealed that there are benefits for all stakeholders in young people taking vocational qualifications. The key findings below are grouped by benefits for learners, for business and the economy.

Benefits for learners

Note that the messages across the 16 texts are largely positive, particularly in relation to the value of vocational qualifications on employment, earnings and benefit reduction. The evidence is more limited or mixed in relation to the wider benefits (including health and well-being and progression to – and achievement in – higher education).

Employment

- Employers perceive vocational qualifications as essential for helping young people to develop skills required for employment.
- There is evidence that all types of qualifications can be associated with increased likelihood of being in employment, but returns seem particularly high for NVQs (note though that it is more likely for NVQs to be taken by those already in employment than many other vocational qualifications).
- Achieving a vocational qualification *at all levels* has a positive impact on the likelihood of being in employment. In the year or two immediately after achievement, returns appear to be highest for Level 2 and 1 achievers (in that order), presumably because Level 3 achievers are most likely to go on to further studies. However, longer-term gains are highest for Level 3 achievers. Unsurprisingly, the difference is greater among learners who achieve *full* qualifications.
- The literature suggests that achieving a qualification via a work-based learning provider can increase the probability of being in *employment* (but not necessarily in terms of impact on *earnings* – see below).

Earnings

- The evidence suggests that there is a significant wage return for most vocational qualifications. Despite reports in the past of negative returns, particularly at Level 2, overall there is evidence of a positive wage return at *all levels*. The return is more instant for the lower levels, while for higher levels it is more delayed, presumably as they go into further education more immediately.
- There is evidence that the *type* of qualification is sometimes more relevant for wage returns than the level i.e. a lower level in some qualifications results in higher wages than a higher level in another qualification.
- Wage returns are seen for most qualification types, but are lower for NVQs (despite NVQs being most associated with *employment* returns).
- For all qualification types, the earnings returns are highest if the qualification is achieved below the age of 25.

Benefit reduction

- Learners who complete all levels of vocational qualifications are less likely than non-completers to be in receipt of benefits (with the gap becoming more pronounced as the level of qualification increases).
- There are particularly strong effects for BTECs and NVQs.

Widening participation in education

- The evidence reviewed suggests that learners who have achieved a vocational qualification are less likely to progress on to higher education than those who achieved 'academic' qualifications such as A Levels. Recent evidence not reviewed fully suggests that, while this is still true, the proportion of vocational entrants is increasing, particularly of young people who enter higher education with a *combination* of vocational and 'academic' qualifications.
- Vocational entrants to higher education are more likely to study part-time or for a sandwich degree. They are also more likely to do a Foundation Degree or Higher National Certificate/Diploma and are in a minority on undergraduate programmes. Vocational entrants also have higher withdrawal rates.
- There is positive evidence of the importance of vocational qualifications for widening participation for the poorest learners.

Benefits for business

- There is some suggestion in the literature that private earnings returns for learners could be associated with individual productivity and, therefore, a more valuable product produced for employers.
- The evidence refers to the general link between vocational qualifications and the development of skills, contributing to a more skilled workforce for employers.

Benefits for the economy

- A positive financial return for the Exchequer has been estimated for most qualifications, with particularly high returns associated with Level 3.
- The reduction in benefit dependency and increase in income tax has a positive impact on returns for the Exchequer.

Conclusions and recommendations

The messages from this review are largely positive in relation to the value of vocational qualifications for learners, particularly concerning employment and earnings. *All* types and levels of vocational qualifications are associated with increased likelihood of being in employment, and there is also a significant wage return for all levels and most types of vocational qualification. Returns are highest and more long-term for those who achieve a Level 3 or higher – this suggests that young people should be encouraged and supported to progress from lower level qualifications on to further, higher levels of learning.

There is evidence that there is more employment and earnings value if a *full* qualification is achieved. This suggests the importance of providers and employers *informing* young people of the benefits of completing their course and encouraging and *supporting* them to do so (for example, with supervision and/or mentoring). Moreover, learners who complete all levels of vocational qualifications are less likely than non-completers to be in receipt of benefits. The increase in employment and decrease in benefits then has a positive knock-on impact on the Exchequer in terms of available public money, although caveats surround this evidence which is often based on estimates, given the difficulties in measurement. There is also *some* anecdotal evidence that employers value a more skilled workforce which they feel results from vocational qualifications, and that more skills lead to increased productivity.

These findings suggest that vocational qualifications *are* worthy of investment by Government, regulatory funding bodies and funding agencies, and use by awarding bodies, providers, businesses and individuals.

The evidence is, however, more limited or mixed in relation to the wider benefits for learners (including health and well-being and progression to – and achievement in – higher education (HE)) and more research would be useful in these areas if this is a particular concern for investors. Recent evidence shows that there has been an increase in vocational entrants into HE and that their completion rates have increased, yet they are still lower than among A Level entrants. This points to a need for more *preparation* of vocational students for HE so that completion rates increase further.

There is also evidence of the particular value for learners with particular characteristics (for example, those under the age of 25 and the poorest learners) and further research would help to explore why this is the case.

Our recommendations for future research which would strengthen the evidence-base are:

- Qualitative research to gather the *perceptions* of learners on the quality and value of vocational qualifications. For example, in terms of enabling themselves to develop the skills required for the world of work and supporting their future progression.
- Qualitative research to investigate employer views on the value of vocational qualifications. For example, whether they see their value when recruiting staff, consider how they help young people to develop and apply the skills they need from their workforce, and whether their views differ by qualification type, level or sector.
- Further exploration of the value of vocational qualifications which considers the influence of different factors, such as occupational area/sector, gender, age, type of learning provider. This could include a further review of the literature, followed by further research if gaps in evidence exist.
- Further analysis of the extent of vocational entrants into HE, to explore if proportions continue to increase in a more competitive HE environment.
- Further research which explores the wider impact of vocational qualifications for learners, such as benefits for health and well-being (which could also have value for the Exchequer and public money), as the evidence was limited.

1 Introduction

Skills are essential to the UK's prosperity, employers' business competitiveness and individuals' labour market prospects, lifetime earning capacity and wellbeing. In her Review of Vocational Education, Professor Wolf (2011) stated that 'the staple offer for between a quarter and a third of the post-16 cohort is a diet of low-level qualifications, most of which have little or no labour market value'. She advocated reducing the number and increasing the quality of vocational qualifications, highlighting the key role of awarding bodies in helping to meet the needs of business: 'We have evidence that employers recognise and value familiarity, often with the awarding body as much as with the particular award ...'. Wolf commented that 'vocational education already offers great benefits to many of our young people, and makes enormous contributions to the economy and to their lives'. She went on to recommend a reduction in number and increase in quality of vocational qualifications 'designed to extend these benefits, and offer better education and training, better prospects, and continued opportunities for progression, to all English young people'.

A current consultation issued by the Department for Business, Innovation and Skills (BIS, 2015) is seeking views on the main challenges that will face adult further education over the next decade, including the role of higher-level vocational education (Level 4+). The document suggests a move towards a system where providers have greater flexibility about how they deliver outcomes for learners – not necessarily structuring their provision around *qualifications*. It questions whether there is a valuable role for vocational qualifications in signalling vocational competence to employers or for progression to higher levels of vocational learning. Therefore, the value of vocational qualifications, which is the focus of this study, is central to their future use by awarding bodies, providers, businesses and individuals.

The National Foundation for Educational Research (NFER) has carried out a small-scale, rapid literature review in February-April 2015 of the value of vocational qualifications offered in the UK by the Joint Council for Qualifications (JCQ) members. The review is evidence-based so will be helpful for the JCQ in informing discussions with Government, regulatory funding bodies, and funding agencies about future investment in vocational qualifications. However, there are some limitations given that this was a small-scale piece of work.

1.1 Aims of the review

The following research questions framed the review.

- **How is the value of vocational qualifications defined and by whom?**
 - To what extent is the value of vocational qualifications defined numerically (e.g. increased wage premia) or qualitatively (e.g. enhanced job satisfaction)?

-
- To what extent do Government policy makers, businesses, awarding bodies, teachers, parents, academics or individuals taking vocational qualifications contribute to defining their value?
 - **What is the reported value of vocational qualifications (e.g. benefits for the individual learner, business, and the economy)?**
 - What benefits are there for the learner in relation to, for example, future employment, earnings and progression.
 - What benefits are there for employers and business, for instance in up-skilling the workforce and for productivity?
 - **Are there gaps in the research on the value of vocational qualifications, and if so, what further information would be useful to have for policy and practice?**

Note that the review did not focus on apprenticeships as they are not qualifications as such (rather, a qualification can be studied for as part of an apprenticeship). The value of apprenticeships has been documented elsewhere, such as in a recent Education Select Committee report on its inquiry into the effectiveness of apprenticeships and traineeships for 16-19 year olds (GB. Parliament. HoC. Education Committee, 2015).

1.2 Review methods

The NFER team adopted a systematic approach to reviewing the evidence (see Figure 1). A review protocol was agreed with the JCQ members.¹ The general inclusion criteria were:

- texts published in the United Kingdom, in English, from the year 2009 (following the introduction of the QCF)
- texts which explore the value of vocational qualifications on young people aged 14-25.

The search strategy (see Appendix A) used three search sources to ensure thorough coverage of the evidence base:

- a range of bibliographic databases
- websites of key organisations and institutions
- JCQ members' recommendations.

A total of 75 documents were found during the searches. These were screened for relevance and two were removed as they were duplicates (i.e. journal articles based on full reports which were already included) leaving **a full list of 73 texts** (see Appendix B for a bibliography). Each text was scrutinised in order to make a 'best evidence' selection of 15 to be reviewed, based on relevance to the research

¹ JCQ members are: AQA Education Limited; Northern Ireland Council for Curriculum Examinations and Assessment; City & Guilds; Pearson; Oxford, Cambridge and RSA Examinations; Scottish Qualifications Authority; and WJEC.

questions and the quality of the evidence (for example, a quantitative analysis of a large-scale national dataset will have taken precedence over a small scale qualitative study or consultation).

The shortlist of 15 studies was agreed with JCQ members. Once reviewing commenced, one study was added as it was referred to in a number of other texts so seemed particularly relevant. Therefore, **16 items were included in the review** (see Appendix B for a bibliography). The 16 items were reviewed in a template which logged information about the source and summarised findings in relation to the research questions (see Appendix C for the template).

1.3 Report structure

Chapter 2 presents an overview of the literature included in the review (in terms of what value of vocational qualifications it defines and for whom), and comments on the strength of evidence. The value of vocational qualifications for learners is summarised in Chapter 3, with sections on value for employment, future earnings, future achievement of higher qualifications, and benefit reduction. Chapter 4 then presents the evidence of the value for employers and public budgets. The benefits for widening participation in education are summarised in Chapter 5. The final chapter of the report presents the conclusions from the review of the value of vocational qualifications. Recommendations for future research on this topic, which would be useful to inform policy and practice, are also suggested.

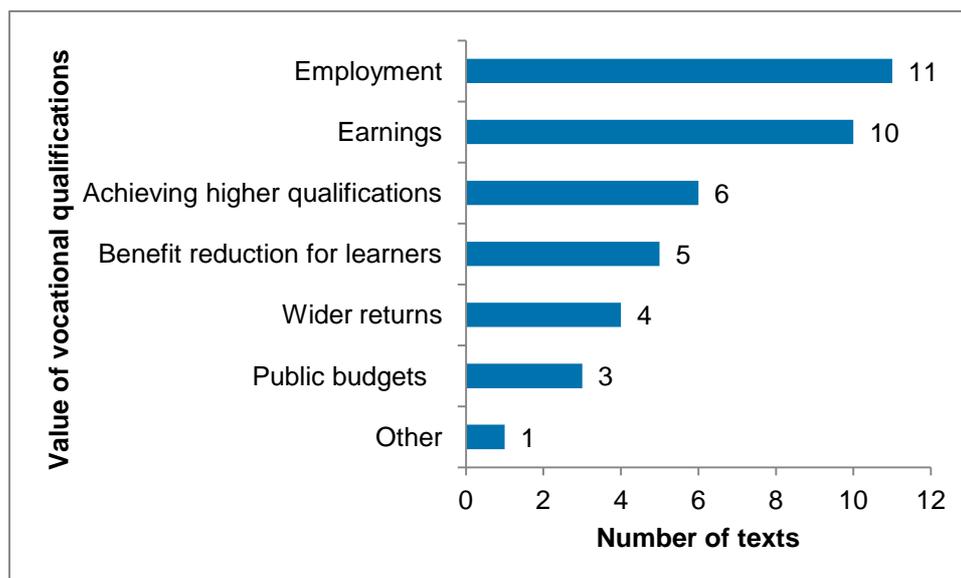
2 Overview of the studies reviewed

In this section we give an overview of the 16 shortlisted texts, in terms of what value of vocational qualifications they have defined and the strength of the evidence they provide.

2.1 What is the value of vocational qualifications and for whom?

As shown in Figure 1, most of the 16 shortlisted texts reported the value of vocational qualifications for learners' future employment (11) or earnings (ten). Six summarised the value in terms of progression to higher qualifications. Fewer studies explored the impact of vocational qualifications on learners' reduction in benefits, or on wider returns (including their health and well-being, development of general skills, and participation in higher education). Three studies summarised the value for the Exchequer in terms of public budget returns, including increases in income tax and reductions in benefit expenditure (due to increased employment).

Figure 1 Coverage of shortlisted texts



The focus was therefore mainly on the value of vocational qualifications for *learners*, although some studies explored the value for the *Exchequer/public budgets* or for *employers/business*.

It should be noted that some texts refer generically to 'vocational qualifications'. Others refer to specific named qualifications, such as BTECs, NVQs, and The Extended Project. In some cases the awarding body is mentioned, such as City and Guilds or Oxford, Cambridge and RSA (OCR)² (but the *qualification* is not always

² RSA used to be an examination body in its own right but is now part of OCR. If this report refers to 'RSA' qualifications it is because the authors are reflecting how they have been referred to in the reviewed texts.

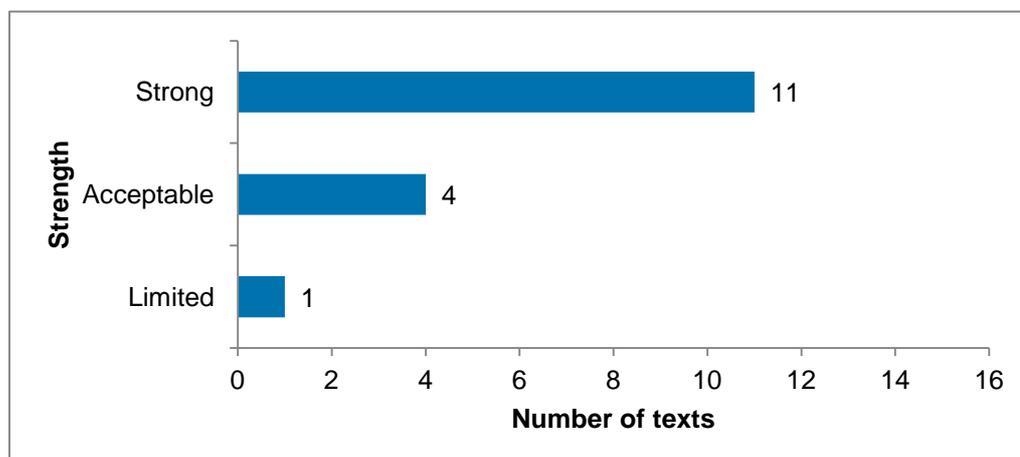
clear). Clarification is given throughout the report if it is available in the text. The authors of this report have been careful to use the same language as that used in the texts reviewed. Note that in some cases qualifications are not differentiated from awarding bodies. For example, NVQ *qualifications* are sometimes compared with 'City and Guilds' which is an *awarding body* that offers NVQs, so there could be overlap/double counting. Note that if certain qualifications or awarding bodies are mentioned more than others in this report, it is because they have featured more in the shortlisted literature. This report can only be as balanced at representing the whole market of qualifications as the texts reviewed.

2.2 What is the strength of the evidence reviewed?

As shown in Figure 2, most studies provided 'strong' evidence, often based on robust secondary analysis of large-scale datasets. Datasets included: British Cohort Study; Higher Educational Statistical Agency (HESA); HM Revenue and customs (HMRC); Individualised Learner Record (ILR); Labour Force Survey (LFS); Longitudinal Study of Young People in England (LSYPE); and Work and Pensions Longitudinal Study (WPLS). Other 'strong' evidence included large surveys and literature reviews which summarised evidence from robust studies.

Four studies were rated as 'acceptable', as although the evidence was quantitative, caveats were added about experimental estimates, a lack of statistical power, or the fact that the study was regional not national. One study was categorised as more 'limited' as it provided descriptive statistics only, based on closed questions.

Figure 2 Strength of evidence



Most studies were therefore quantitative in their approach (analysing secondary datasets or survey data). Three included a review of literature and two included views obtained directly from learners and/or parents (in one case telephone interviews with 4,000 learners and in the other a survey of learners and parents as well as online discussions with learners).

3 The value of vocational qualifications for learners

In this chapter we summarise the evidence of the value of vocational qualifications for learners, in relation to future employment, earnings, achievement of higher qualifications, and benefit reduction. Where possible, we group the evidence by the value of different qualification levels, types, and the location of learning. Note that the messages across the 16 texts are largely positive, particularly in relation to the value of vocational qualifications on employment, earnings and benefit reduction. The evidence is more limited or mixed in relation to the wider benefits (including health and well-being and progression to – and achievement in – higher education (HE)).

3.1 Value for future employment

The Edge Foundation surveyed 1000 employers of different sizes and across a diverse range of sectors about their views on vocational qualifications (Edelman Berland, 2013). Almost three-quarters (72 per cent) felt that vocational qualifications were essential for improving the skills of young people. Three-fifths (62 per cent) agreed that vocational qualifications provided high-quality work-based training to help young people progress into the workplace and just over half (53 per cent) felt that vocational qualifications were more valuable than academic qualifications for preparing young people for the workplace.

These positive views held by employers about vocational progression into the work-place could explain why there is consistent evidence of an association between holding a vocational qualification and being in employment. McIntosh and Garrett (2010) carried out a review of literature to explore the economic value of intermediate vocational qualifications and concluded that there was a positive association between holding vocational qualifications and employment. Conlon *et al.* (2011), at London Economics, were commissioned by BIS to analyse data from the British Cohort Study and the Labour Force Survey between 1996 and 2009 to assess the impact of intermediate and low level vocational qualifications on employment and earnings. They too concluded that all vocational qualifications were associated with increased likelihood of being in employment.

The following sections present the evidence that there are positive employment returns for all levels of vocational qualifications (although they are highest longer-term for Level 3) and most types of qualifications, and that employment returns are most positive for learners who achieve via a work-based learning route.

3.1.1 Employment value, by qualification level

There is consistent evidence that achieving a vocational qualification **at all levels** has a positive impact on the likelihood of being in employment. The evidence suggests that returns appear to be most *immediate* for Level 1 and 2 achievers,

while it takes longer for Level 3 learners to experience gains (presumably because they are most likely to go on to further studies) but their longer-term gains are highest. In the year or two immediately following completion, returns are reported to be highest for Level 2 achievers. The evidence is summarised below.

The McIntosh and Garrett (2009) review found that most Level 3 vocational qualifications were associated with being in employment, relative to individuals with no qualifications, although effects were small (between one-two percentage points). They also concluded that effects were smaller for Level 2.

In the more recent study by Conlon *et al.* (2011) at London Economics, employment returns for 1996-2009 to intermediate and low level vocational qualifications were explored. Returns were higher for Level 3 than Level 2, although they were still positive for Level 2.

London Economics (2011) were commissioned by BIS to investigate the long-term effect of vocational qualifications on the labour market, by analysing learner attainment information from the ILR (2002-2006) matched to HMRC data on earnings and employment (2003-2010). When exploring the amount of time spent in employment, following the completion of their qualification (comparing achievers with non-achievers), they found that achievers at all levels had significantly better employment outcomes than non-achievers. An achiever at Level 2 had a 2.2 per cent increased probability of being in employment in the year following achievement; by year three this increased to 4.4 per cent and to 5.4 after seven years. For Level 3 achievers, although there was no immediate probability of increased employment (presumably due to higher education), after seven years the increased probability stood at 6.1 per cent. Even at Level 1, the probability for achievers versus non-achievers increased from 1.6 per cent in year one to 3.8 per cent in year seven.

In a similar, more recent analysis, Conlon and Patrignani (2013) from London Economics were again asked by BIS to explore similar data and outcomes, but this time focussing on learners aged 19 and above who had taken a vocational qualification only. They made similar conclusions with this analysis - the difference in proportions of time in employment increased as the level of qualification increased. The authors state that '*the analysis indicates that there are consistently strong employment effects associated with qualification completion*'. For example, at Level 1, achievers spent 2.4 per cent more of the first year in employment (i.e. an individual is expected to be employed for approximately 2.4 per cent more in the first financial year following completion) compared with non-achievers, which increased to 3.7 per cent more in the seventh year. Our calculations suggest this equates to a difference of approximately 9-13 days over time. For Level 2 the figures were 3-4.5 per cent more over time (calculated as equating to 11-16 days). At Level 3, although the difference between achievers and non-achievers was lower in year one (2.2 per cent/8 days), over time it was highest (5.1 per cent/19 days). The authors do not clarify if these are statistically significant differences but describe them as '*strong effects*'.

Note that the difference was greater among learners who achieved full qualifications. For example, in the first year after achieving a full Level 3, the difference in proportion of employment between achievers and non-achievers was 3.6 per cent. Similar patterns emerged for Level 2. The effects remain and increase over seven years (Conlon and Patrignani, 2013).

3.1.2 Employment value, by type of qualification

There is consistent evidence that all types of qualifications can be associated with an increased likelihood of being in employment, but returns seem particularly high for NVQs. Note that it is more likely for NVQs to be taken by those already in employment than some other vocational qualifications.

For example, the Conlon *et al.* (2011) study for BIS reported on employment returns to intermediate and low level vocational qualifications (between 1996 and 2009), comparing achievers with those with lower level qualifications. All types of qualification were associated with an increased likelihood of being in employment, but returns were highest for NVQs. Those with a Level 3 were 15 percentage points more likely to be in employment than those with lower level qualifications; for Level 2 the figure was 13 per cent. NVQs were closely followed by City and Guilds³ - those with a Level 3 were 14 per cent more likely to be in employment; for Level 2 the figure was 12 per cent. The equivalent figures for BTECs were eight per cent for Level 3 and nine per cent for Level 2. For RSA qualifications the figures were six per cent for Level 3 and nine per cent for Level 2.

Males in possession of an RSA Level 2 experienced a *negative* employment return (-5 per cent compared with males with lower qualifications), although this was not the case for males at Level 3 (a positive two per cent return). A positive return was evident for females who had achieved RSA qualifications. Overall, the highest returns for males came from City and Guilds at Level 2 (12 per cent) and Level 3 (11 per cent), while the lowest returns came from RSA qualifications (two per cent at Level 3; -5 per cent at Level 2). For females, the highest return was from NVQ Level 3 (17 per cent) and Level 2 (13 per cent), while the lowest return was City and Guilds Level 2 (three per cent) and Level 3 (four per cent) (Conlon *et al.*, 2011).

London Economics (2011) analysed the proportion of the year an individual was employed for, post-course completion. Again, the results were positive for NVQ completers: those with an NVQ Level 2 performed better than average Level 2 learners (they were employed for 4.3 per cent more of the first year, increasing to 8.3 per cent more after seven years). However, BTEC Level 2 completers achieved the greatest *long-term* employment boost (8.9 per cent after seven years). City and Guilds achievers are just above average (3.2 to 5.9 per cent after seven years). When comparing achievers with non-achievers, achievers of NVQs

³ As mentioned in Section 2.1, 'City and Guilds' is an *awarding body* that offers qualifications including NVQs, so there could be overlap/double counting.

experienced most likelihood of being in employment. Significant results were seen for other qualifications but they are strongest for NVQs.

In their more recent study, Conlon and Patrignani (2013) found again that NVQs gave increasing employment returns over time compared with other qualifications. At Level 3, returns increased from 3.5 to 8.2 per cent compared with five per cent over time for City and Guilds. At Level 2 the comparable figures were 5.5 to 7.2 per cent for NVQs and 3.3 to 6 per cent for City and Guilds.

In a study with a different focus, London Economics (2013) explored the employment outcomes of degree level achievers, comparing learners who entered higher education with either a BTEC or A Levels. The authors reported that employment rates for graduates on the BTEC route were higher than those who followed the A Level route (although differences seem small). For males, 90.9 per cent of those who took the BTEC route compared with 90.2 per cent of those who graduated via the A Level route were in employment. For females, the figures were 87.3 and 86 per cent respectively. Learners who achieved via the BTEC route were also more likely to be employed *full time* (80.4 per cent compared with 73.6 per cent of those on the A Level route).

3.1.3 Employment value, by location of learning

The literature suggests that achieving a qualification via a work-based learning provider can increase the probability of being in employment.

In their analysis of the ILR (2002-06) and HMRC data (2003-2010) for BIS, Conlon and Patrignani (2013) concluded that employment outcomes are more positive for those who take a workplace route compared with a classroom route. For example, over a seven year period, individuals who attained through the workplace route spent between 4.5 per cent and 6.5 per cent *more* of the financial year in employment compared with non-achievers (16-24 days more across the seven years). The difference between achievers and non-achievers who took a classroom route was lower – it ranged from two per cent to 5.5 per cent (7-20 days more across seven years). The authors do not clarify if these differences are statistically significant.

Buscha *et al.* (2013) were commissioned by BIS to link the ILR data with WPLS data (2002-2011) to explore employment gains secured by learners aged 16 and over who achieved academic and vocational qualifications. Vocational learners were grouped into those who primarily studied at a FE college and those who achieved their qualification at a work-based learning provider. The highest estimated employment probability premium for achievers over non-achievers was seen for vocational learners who had achieved their qualification with a work-based learning provider (for below Level 2 learners, this ranged between 6.9-7.5 per cent higher for achievers over four years post-qualification). This was compared with 6.4 per cent in year one for academic learners, decreasing to five per cent by year four. Among vocational learners who studied in college, the equivalent figures were 3.8-4 per cent. Similar patterns emerged for Level 2, with highest

premiums estimated for vocational learners who achieved at a work-based provider.

3.2 Value for future earnings

In her Review of Vocational Education, Professor Wolf (2011) raised concerns about the low wage returns to low-level vocational qualifications obtained in educational institutions or training schemes. She quoted *negative* figures from the 2004 Labour Force survey for Level 2 qualifications, suggesting that people earned less as a result of taking them. However, the evidence reviewed for this report (which includes more recent literature published since 2009) consistently suggests that there *is* a significant wage return for most vocational qualifications.

The evidence presented below shows that earnings returns were positive and most *immediate* for lower level achievers (Level 1 and 2), while gains were more delayed but highest for Level 3 achievers (presumably because they are most likely to go on to further studies than into employment where they could earn wages). At Level 3, the short-listed evidence suggests that earnings returns were highest for BTEC and City and Guilds achievers, while these types of qualifications were topped by RSAs at Level 2. There is evidence suggesting that the *type* of qualification might be more significant for earnings than the *level* achieved. The most valuable *route* of learning for earnings is not clear.

3.2.1 Earnings value, by qualification level

Conlon *et al.* (2011) found that the level of qualification was not necessarily the most relevant factor for estimating lifetime earnings. *Type* of qualification was sometimes more relevant (see below). For example, the lifetime benefit associated with a Level 3 NVQ was £37,000 and for BTEC was £89,000. Some Level 2 BTECs and City and Guilds qualifications gave a higher earning return than some Level 3 NVQs. The Level 2 benefit ranged between £35,000-£57,000 for BTECs and £42,000-£71,000 for City and Guilds. The net benefit for NVQ Level 2 was £18,000-£42,000; this shows that the benefit of some Level 2 NVQs was higher than some Level 3 NVQs. Could these disparities in earnings be explained by differences in the credibility and reputation of the qualifications?

The London Economics (2011) study for BIS found that attainment at Level 1 added approximately three per cent in earnings over seven years. For Level 2 achievers, there was no earning premium for the first three years (possibly because learners went on to further education), but then a six per cent premium after seven years. No return was found for Level 3 achievers in the four years following their attainment; the authors acknowledge that this is also likely to be due to participation in further and higher education.

Comparing achievers with non-achievers, Buscha *et al.* (2013) found that learners who had achieved below Level 2 vocational qualifications had an estimated earning premium higher than those who had achieved a Level 2 following course completion. Below Level 2 achievers had premiums between 5.6 per cent and 4.7 per cent compared with non-achievers over the four years following learning,

compared with between 1.9 to 1.3 per cent over four years for Level 2 achievers versus non-achievers. This could be because more Level 2 achievers went on to further education following their achievement. The authors found that estimated earnings premiums were, however, higher for Level 2 learners who had achieved a *full* qualification.

Four years after completing a qualification, premiums were lower for achievers of Level 3 and 4 qualifications, probably as they were more likely to go on to further/higher education (Buscha *et al.*, 2013).

Conlon *et al.* (2013) explored the wage returns of vocational qualification completers aged 19 and over, compared with non-completers. At Levels 1 and 2, the average hourly earnings premium for completers versus non-completers ranged between 2.5 per cent and five per cent over a period of seven years. At Levels 3 and 4, the earning return was more limited in the first three years then increased quickly (for example, for Level 4 the wage premium for completers was 12 per cent seven years post-qualification).

A review undertaken for BIS exploring the economic benefits of training and qualifications concluded that higher levels of qualifications were associated with higher returns in terms of wages, across different qualification types (BIS, 2013a). These were:

- BTEC: those with a Level 3 earned 20 per cent more than those with a Level 2.
- RSA: Level 3 earned 16 per cent more than Level 2
- City and Guilds: Level 3 earned 15 per cent more than Level 2.
- NVQs: wages at Level 3 were ten per cent higher than at Level 2.

Note that the difference was greater for learners who had achieved apprenticeships (those with a Level 3 earned 22 per cent more than those with a Level 2).

A more recent analysis of various datasets, undertaken by BIS to explore the average earnings post-study (2010-2013), estimated that the median annual earnings for a full Level 2 achiever (excluding apprenticeships) increased from £16,100 one year after study to £17,100 three years after (BIS, 2014). For full Level 3 achievers, earnings were less (as a greater proportion were likely to be in further learning) but still increased from £15,200 to £15,800 after three years.

3.2.2 Earnings value, by qualification type

This evidence suggests that, although NVQs were the qualification type most strongly associated with *employment* (see Section 3.1.2 above), the same was not the case with *earnings*. This could indicate that some NVQs are taken by people who work in low-skilled, modestly paid jobs.

The review by McIntosh and Garrett (2010) reported that the marginal wage returns for Level 2 achievers compared with those with no qualifications were highest for RSA (20 per cent), followed by BTEC (11 per cent), City and Guilds (seven per cent)

and finally NVQs (four per cent). The highest return for men was revealed for RSA qualifications (60 per cent compared with those with no qualification); for women it was BTEC (36 per cent return).

The Conlon *et al.* (2011) study for BIS more recently reported that the lifetime earnings benefit was greatest for BTEC achievers at Level 3 (£89,000 for Level 3, and between £35,000 and £57,000 for Level 2). At Level 2, there was overlap between the returns for BTECs (£35,000-£57,000) and City and Guilds (£42,000-£71,000), depending on the specific qualification, but overall returns were highest for City and Guilds. Returns were lowest for some NVQs (£18,000-£42,000).

The review undertaken for BIS (2013a) concluded that the wage return at Level 3 compared with Level 2 was highest for BTEC (20 per cent more), followed by RSA and City and Guilds (16 and 15 per cent), then NVQs (ten per cent). Note though that the difference was even greater for learners who had achieved an Apprenticeship (those with a Level 3 earned 22 per cent more than those with a Level 2).

Conlon and Patrignani (2013) explored the wage premiums for qualification completers versus non-completers over a seven-year period, disaggregated for those who studied different qualifications. At Level 3, those with a City and Guilds qualification experienced a fairly consistent six per cent premium over the period, while for NVQ achievers the premium was smaller in the short-term, then increased to approximately 15 per cent after seven years. In contrast, at Level 2, the premiums were fairly consistent over time for City and Guilds (12 per cent) and NVQs (six per cent).

A review undertaken by Ipsos MORI and London Economics (2013) for BIS investigated the benefits associated with further education and skills. They reported significant financial returns associated with completing vocational qualifications, although gains varied by type of qualification. For example, at Level 3, gains appeared highest for City and Guilds qualifications, particularly for men (with a net benefit of £63,375-£93,973), closely followed by BTEC (£59,943-£74,423). The lowest gains for men at Level 3 were from NVQs (£26,817-£38,310), although NVQs gave women their highest gains at Level 3 (£31,258-£61,293). Lowest gains for women at Level 3 were from City and Guilds. Similar patterns emerged for the lower levels of each qualification type.

3.2.3 Earnings value, by location of learning

Although the literature suggests that achieving a qualification via a work-based learning provider can increase the probability of being in *employment* (see above), the evidence of whether this route leads to greater *earnings* is more mixed.

The McIntosh and Garrett review (2010) concluded that obtaining an NVQ Level 2 through work led to, on average, ten per cent more earnings compared with an individual with no or lower level qualifications. No other route was associated with a positive return (except college route for females only).

When Conlon *et al.* (2011) explored this more recently he found no significant association between earnings and location of learning. However, in his more recent analysis of the ILR (2002-06) and HMRC data (2003-2010) for BIS (Conlon and Patrignani, 2013) individuals attaining their qualification through the workplace route had more immediate and significant earnings returns than those who attained via the classroom route – standing at between seven per cent and eight per cent relative to non-completers in the first three years post attainment. These returns persisted and increased to between 17 per cent and 18 per cent in the sixth and seventh year post attainment. Individuals completing qualifications at Level 3 through the classroom route were not found to achieve an earnings premium over non-completers until four years post qualification attainment.

In contrast, Buscha *et al.* (2013) observed a much higher estimated premium (from 18.6 per cent to 14.6 per cent) for learners who achieved a Level 2 at an FE provider, compared to the premium for those who achieved via work-based Learning (14.4 per cent to 10.5 per cent). However, the authors acknowledge that the two categories contained very different types of learner and that achievers in the work-based context still secured statistically larger wage returns relative to those who did not achieve in this environment.

3.2.4 Earning value, by age

The McIntosh and Garrett review (2010) reported that, for all qualification types, the earnings returns were highest if the qualification was achieved below the age of 25. For example, under 25s who achieved an NVQ Level 2 had an earning return of 21 per cent compared with individuals with no qualifications; if over 25, the return decreased to three per cent.

Similarly, Conlon *et al.* (2011) reported an earnings advantage for those gaining a qualification under the age of 25. For example, City and Guilds learners at Level 3 experienced a wage premium of 10-13 per cent if under age 25, compared with five-six per cent for over age 25. Similar age-related differences emerged for NVQ achievers.

3.2.5 Earning value, by subject and sector

There is evidence that earnings increase for those who complete qualifications in construction, planning and the built environment, engineering, and manufacturing. However, qualifications in health, public services, care, leisure, travel and tourism, arts, media and publishing, history, philosophy and theology have been associated with lower earnings (for example, BIS, 2013a; Conlon and Patrignani, 2013; Conlon *et al.*, 2011 which all explore earnings by certain subjects/sectors). Further exploration of the evidence of the value of vocational qualifications for different sectors would be useful, in order to explore this further and ascertain *why* a gap in earnings exists.

3.3 Value for future achievement of higher qualifications

This section, based on fairly limited evidence, presents a mixed picture of the value of obtaining vocational qualifications for future achievement of higher qualifications.

Joslin and Smith (2013) explored the achievements of a cohort of London-based FE-leavers who entered HE in 2006-07. Only 13 per cent of learners who entered via the A Level route did not achieve an HE award, compared with 31 per cent who went via a BTEC route. Eighty-two per cent of those via the A Level route achieved a degree, compared with 58 per cent via the BTEC route. Could this disparity be explained by BTEC learners not being used to the mode of learning experienced in HE? If this is the case, there is a need to prepare these learners more readily for HE so that they complete their degrees.

The London Economics (2013) study found that a higher proportion of learners who completed a university degree through the BTEC route achieved a first class honours degree (12.2 per cent) compared with those who followed the A Level route (11.4 per cent). When combining first class degrees with second class degrees, 82 per cent of learners on the A Level route achieved, compared with a fairly similar proportion (79 per cent) of learners on the BTEC route.

Gill and Rodeiro (2014) from Cambridge Assessment analysed HESA data to explore the success of students entering HE in 2010/11 via different routes (including the Extended Project and BTEC Diploma). Having an Extended Project qualification was a positive predictor of university performance. For students with the same A Level results, those also with the Extended Project had a higher probability of achieving a good degree. The cohort who had entered HE via the BTEC route performed less well than those who entered via other qualification routes – fewer achieved a first class degree (the authors acknowledge that the aim of a BTEC is not primarily to prepare young people for university).

3.4 Value for benefit reduction

There is some evidence that *completing* vocational qualifications reduces benefit dependency, such as Jobseekers Allowance (JSA) and Incapacity Benefit (IB).

3.4.1 Benefit value, by qualification level

The London Economics (2011) study for BIS reported on the value of completing different levels of vocational qualifications for a reduction in benefits. Learners who completed all levels were less likely to be in receipt of benefits (with the gap becoming more pronounced as the level of qualification increased). At Level 1, completers were 0.7 per cent less likely than non-completers to be in receipt of JSA one year post qualification. They were also 1.3 per cent less likely to be dependent on IB. Achievement of Level 2 qualifications reduced benefit dependency further. Achievers were 1.5 per cent less likely to claim JSA one year post qualification, although the longer term effect was reduced to one per cent difference after five

years. The effect was stronger for IB, as completers were two per cent less likely to claim IB after one year, reducing to 1.5 longer-term. For Level 3 learners, completers were two per cent less likely than non-completers to be dependent on JSA in the first three years, although this effect reduced to one per cent after five years.

3.4.2 Benefit value, by qualification type

London Economics (2011) reported that, among Level 1 learners, the strongest effect on JSA was seen for those completing *Skills for Life* qualifications (two per cent in the first two years). At Level 2, NVQ and BTEC qualifications had a particularly strong effect on reducing JSA (2-2.5 per cent and 3.5-4 per cent respectively).

4 The value of vocational qualifications for employers and public budgets

4.1 The benefits for employers

Across the shortlisted items included in the review, the evidence of the value of vocational qualifications for the *employer* is limited.

McIntosh and Garrett (2010) surmised that the private earnings return for learners (summarised above in Section 3.2) could be associated with individual productivity and, therefore, a more valuable product produced for employers. Note that we report evidence above of earning variations by subject, which *could* have an impact on employers in relevant sectors. The review also referred to the general link between vocational qualifications and the development of skills, contributing to a more skilled workforce for employers.

Similarly, in a review undertaken by BIS (2013a) vocational qualifications were referred to as an ‘investment’ by employers, as the evidence showed that qualified staff stayed in employment longer and experienced wider returns which could impact positively on employers, such as improved well-being. The Edge Foundation’s survey of 1000 employers (Edelman Berland (2013) found that almost three-quarters (72 per cent) felt that vocational skills were essential for improving skills of young people. Just over half (53 per cent) felt that vocational qualifications were more valuable than academic qualifications for preparing young people for the workplace.

Batterham and Levesley (2011), who carried out a large-scale survey of students and parents on their views on vocational qualifications, found that learners on vocational courses were more likely than those on general courses to see the importance of developing practical skills for the workplace (37 per cent and 29 per cent). Vocational qualifications were most likely to be associated with developing practical skills for employment.

The review of below Level 2 learning undertaken for BIS (2013b) found, though, that where employers had contributed to the cost of learning, they were motivated by a minimum and recognisable level of *certification*. The review also found evidence that learners’ motivation for studying was often employer-led.

4.2 The benefits for public budgets

The evidence summarised in this section suggests that there is a positive financial return in terms of public budgets estimated for most vocational qualifications.

A review undertaken by Ipsos MORI and London Economics (2013) concluded that the economic benefits of vocational qualifications for the Exchequer were significant, although it did not include monetary values.⁴

Conlon *et al.* (2011) calculated the returns to intermediate and low-level vocational qualifications for the Exchequer, based on the up-front costs of supporting qualification attainment and the change in tax revenues associated with qualification attainment. A positive financial return was estimated for most qualifications, with particularly high returns associated with Level 3 qualifications. The net value of benefits (at the time of reporting) for different qualifications at Level 3 (compared to Level 2) is listed below:

- £21,000-£36,000 for NVQ
- £27,000-£38,000 for BTEC
- £30,000-£49,000 for City and Guilds

The equivalent figures for apprenticeships (qualifications unspecified) were £56,000-£81,000. The benefits associated with Level 1 and Level 2 were also reported as substantial. At each level of qualification, the most positive return was reported for apprenticeships, followed by City and Guilds, BTECs, then NVQs. From men, the highest returns for the Exchequer were associated with Level 3 apprenticeships (£84,000-£111,000 compared with Level 2 qualifications), although strong returns were also seen from City and Guilds and BTECs. The opposite was true for NVQs – a net cost was associated with Level 2. For women, returns were smaller but positive for most qualifications (except some City and Guilds qualifications) – most positive for RSA qualifications.

The analysis for BIS (2013b) suggested that below Level 2 learning which began in 2005/06 made a total return of around £638 million to public budgets over the four years 2007/08 to 2010/11. But, note that below level 2 learning is not all vocational (results were not disaggregated).

⁴ The studies referred to were published between 2004 and 2008 and therefore pre-date the scope of *this* review (which focuses on publications from 2009 onwards).

5 Wider benefits: widening participation in education

The evidence presented in this section suggests that learners who have achieved a vocational qualification are less likely to progress on to higher education than those who have achieved A Levels.⁵

In their large-scale national survey of students' and parents' views on vocational qualifications, Batterham and Levesley (2011) found that vocational qualifications were more likely to be associated with developing practical skills for employment than for entry into higher education.

A more recent, yet regional, study by Round *et al.* (2012) aimed to understand the progression of vocational students compared to those who studied for more 'traditional' qualifications, such as A Levels. They found that vocational entrants into HE were more likely to study part-time or for a sandwich degree. They were also more likely to do a Foundation Degree or Higher National Certificate/Diploma and were in a minority on undergraduate programmes. Vocational entrants also had higher withdrawal rates. There was evidence of the importance of vocational qualifications for widening participation for the poorest learners. Vocational entrants to HE were disproportionately drawn from the most socio-economically deprived areas – nearly half (48 per cent) of vocational entrants were from the 40 per cent most deprived areas. The paper concludes by referring to the possible negative impact of the 'quasi-market place' (in which HE providers are encouraged to compete on the basis of price as well as other factors) on changes to vocational entrants to HE i.e. that vocational entrants might be squeezed during more competition for full-time courses, because of higher withdrawal rates.

Joslin and Smith (2013) investigated the progression of London-based college learners to HE in London between 2005 and 2009. Those with vocational qualifications were less likely to progress to HE than those with A Levels. For example, 65 per cent of the 2009-10 A Level cohort progressed to HE, compared with 47 per cent of the BTEC cohort, seven per cent of the NVQ cohort and 22 per cent of those with an 'other' full-time vocational route. Across the different vocational qualifications, progression rates for the BTEC cohort increased over the five years; they declined for the NVQ and 'other' cohorts. The majority of BTEC learners in the 2005-06 cohort, for example, progressed onto a first degree course; learners with other vocational routes to HE were more likely to study for other qualifications.⁶

⁵ Note that more recent evidence (see footnote 6) shows that the proportion of students entering HE via a vocational route is increasing, and that young people are increasingly entering HE with combinations of vocational and 'academic' qualifications.

⁶ Note that more recent evidence of the progression of vocational students into HE has been published (see: UCAS, 2014; Universities UK, 2015; and Rouncefield-Swales, 2014). Although these texts were not included in the review (as the titles did not include keywords used for searching), they are worthy of mention. The reports include evidence of an increase in number of students going to university with vocational qualifications, particularly with

A review undertaken by Ipsos Mori and London Economics (2013) found that as the level of prior vocational learning increased, the probability of undertaking and completing later vocational and academic qualifications also increased.

BTECs. Although A Levels are still the most widely held qualifications among HE applicants and entrants, BTECs are more likely than ever to be held by under-graduates. There is evidence that the fastest growing route into HE is a *combination* of BTEC and A Level qualifications. There has also been an increase in completion rates among BTEC students on undergraduate courses (yet still lower than among A Level entrants).

6 Conclusions and recommendations

The final chapter of the report presents the conclusions from the review of the value of vocational qualifications. Although based on evidence from carefully selected literature, there are some limitations to the conclusions which can be drawn from a small-scale review. Recommendations for future research on this topic, which would be useful to inform policy and practice, are also suggested.

6.1 Conclusions

One of the main aims of this review was to explore evidence of *how* the value of vocational qualifications is defined. Across the shortlisted literature, the value is predominantly defined in terms of the benefits for *learners*, with most texts focussing on the value for employment and earnings, (although less so on wider benefits such as health and well-being). Although value for employers and the Exchequer does feature, such evidence is less widespread. Most of the literature presents evidence from analysis of large secondary datasets or from other reviews, while qualitative studies which capture the *opinions* of learners and employers are scarce.

The main aim of the review, however, was to investigate whether there *is* value in achieving a vocational qualification, and to provide *evidence* of the value that will support future investment in their use. The messages from this review are largely positive in relation to the value for learners, particularly concerning employment and earnings. *All* types and levels of vocational qualifications are associated with increased likelihood of being in employment, and there is also a significant wage return for all levels and most types of vocational qualification. Returns are highest and more long-term for those who achieve a Level 3 or higher – this suggests that young people should be encouraged and supported to progress from lower level qualifications on to further, higher levels of learning. Moreover, despite returns for most types of qualifications, the evidence does suggest differences in the credibility and reputation of certain types. For example, employment returns were highest for NVQs, but earnings returns were not as high as they were other qualifications, suggesting those with NVQs had lower-paid jobs.

There is evidence that there is more employment and earnings value if a *full* qualification is achieved. This highlights the importance of providers and employers *informing* young people of the benefits of completing their whole course and *encouraging* and *supporting* them to do so (for example, with supervision and/or mentoring).

Moreover, learners who complete all levels of vocational qualifications are less likely than non-completers to be in receipt of benefits. The increase in employment and decrease in benefits then has a positive knock-on impact on the Exchequer in terms of available public money, although caveats surround this evidence which is often based on estimates, given the difficulties in measurement. There is also *some* anecdotal evidence that employers value a more skilled workforce that they feel

results from vocational qualifications, and that more skills lead to increased productivity.

These findings paint a much more positive picture of the value of vocational qualifications than some of the reports referred to in Chapter 1 which have questioned the benefits, which suggests that vocational qualifications *are* worthy of investment by Government, regulatory funding bodies and funding agencies, and use by awarding bodies, providers, businesses and individuals.

The evidence is, however, more limited or mixed in relation to the wider benefits for learners (including health and well-being and progression to – and achievement in – higher education) and more research would be useful in these areas if this is a particular concern for investors. Recent evidence shows that there has been an increase in vocational entrants into HE and that their completion rates have increased, yet they are still lower than among A Level entrants. This points to a need for more *preparation* of vocational students for HE so that completion rates increase further.

Some of the literature also reports on how value varies for learners with different characteristics; for example that earnings returns are highest for those under the age of 25, and that vocational qualifications are important for widening participation for the poorest learners. Differences between the value for males and females are also sometimes reported. Further research to explore these differences would help to explain why they exist

6.2 Recommendations for further research

The final aim of the research was to consider whether further information could be obtained for policy and practice, in order to fill any gaps in evidence. Our recommendations for future research which would strengthen the evidence-base are:

- Qualitative research to gather the *perceptions* of learners on the quality and value of vocational qualifications. For example, in terms of enabling themselves to develop the skills required for the world of work and supporting their future progression.
- Qualitative research to investigate employer views on the value of vocational qualifications. For example, whether they see their value when recruiting staff, consider how they help young people to develop and apply the skills they need from their workforce, and whether their views differ by qualification type, level or sector.
- Further exploration of the value of vocational qualifications which considers the influence of different factors, such as occupational area/sector, gender, age, type of learning provider. This could include further literature review, followed by further research if gaps in evidence exist.
- Further analysis of the extent of vocational entrants into HE, to explore if proportions continue to increase in a more competitive HE environment.

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- Further research which explores the wider impact of vocational qualifications for learners, such as benefits for health and well-being (which could also have value for the Exchequer and public money), as the evidence was limited.

7 References

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Appendix A Review parameters and search strategy

The aim of the literature review was to explore the value of vocational qualifications offered by the Joint Council for Qualifications (JCQ) members (research questions are listed in Chapter 1).

The general inclusion criteria for the review are shown in Table A1. These were agreed with JCQ members.

Table A1 Inclusion criteria

Publication date:	Work published from the year 2009 (following the introduction of the Qualifications and Credit Framework)
Geographical scope:	UK
Age range:	14 to 25
Language:	Literature published in the English language
Study type:	Empirical research and/or evaluation; published literature and policy documents.

A search strategy involved matching database keywords to the research questions. Three types of search source were included to ensure thorough coverage of the evidence base:

- a range of bibliographic databases
- websites of key organisations and institutions
- recommendations from member bodies.

The precise search strategies used with each of the bibliographic databases (in terms of the keywords used and, in some cases, the combinations of keywords) are specified in detail below. The search strategy for each database reflects the differences in database structure and vocabulary. Smaller sets of keywords were used in the more specialist databases. Throughout, the abbreviation 'ft' denotes that a free-text search term was used i.e. a term not included in a databases's thesaurus or controlled vocabulary. The websites were searched on main keywords and/or the publications/research/policy sections were browsed as appropriate.

The databases included in the search strategy are listed in Table A2 (details of keywords are given below).

Table A2 Databases searched

Description		Search details and date of search
British Education Index (BEI)	BEI provides information on research, policy and practice in education and training in the UK. Sources include over 300 journals, mostly published in the UK, plus other material including reports and conference papers.	searched via EBSCO 21/01/15
ECER VETNET Proceedings	Papers presented at the annual European Conference on Educational Research by the European Research Network in Vocational Education and Training	searched 19/01/15
Education Resources Information Center (ERIC)	ERIC is sponsored by the United States Department of Education and is the largest education database in the world. Coverage includes research documents, journal articles, technical reports, program descriptions and evaluations and curricula material.	searched via EBSCO 22/01/15
Idox Information Service	The IDOX Information Service covers all aspects of local government.	searched 21/01/15
Social Policy and Practice	Social Policy and Practice is a bibliographic database with abstracts covering evidence-based social policy, public health, social services, and mental and community health. Content is from the UK with some material from the USA and Europe.	searched via Ovid SP 20/01/15
<u>VOCEDPlus</u>	VOCEDplus is an international research database for tertiary education, in relation to workforce needs, skills development and social inclusion. It encompasses vocational education and training (VET), higher education, adult and community education, informal learning, and VET in schools, and is produced by the National Centre for Vocational Education Research (NCVER).	searched 19/01/15

British Education Index (BEI)

- #1 Diplomas
- #2 General national vocational qualifications
- #3 National vocational qualifications
- #4 Employee training
- #5 Vocational education
- #6 BTEC (ft)
- #7 Business and technician education council (ft)
- #8 Competency based education (ft)
- #9 On the job training (ft)
- #10 Vocational education and training (ft)
- #11 Vocational qualifications (ft)
- #12 S1 or S2....or S11
- #13 United Kingdom (ft)
- #14 UK (ft)
- #15 England (ft)
- #16 Wales (ft)
- #17 Scotland (ft)
- #18 Northern Ireland (ft)
- #19 #13 or #14...or #18
- #20 #12 and #19

ECER VETNET Proceedings

- #1 Vocational qualifications (ft)

Educational Resources Information Center (ERIC)

- #1 General national vocational qualifications (ft)
- #2 National vocational qualifications (ft)
- #3 Vocational education (ft)
- #4 BTEC (ft)
- #5 Business and technician education council (ft)
- #6 On the job training (ft)
- #7 Vocational education and training (ft)
- #8 Vocational qualifications
- #9 S1 or S2....or S8

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- #10 United Kingdom (ft)
 - #11 UK (ft)
 - #12 England (ft)
 - #13 Wales (ft)
 - #14 Scotland (ft)
 - #15 Northern Ireland (ft)
 - #16 #10 or #11...or #15
 - #17 #9 and #16

Idox Information Service

- #1 General national vocational qualifications (ft)
- #2 National vocational qualifications (ft)
- #3 Vocational education and training (ft)
- #4 Vocational qualifications (ft)
- #5 BTEC (ft)
- #6 Business and technician education council (ft)
- #7 #1 or #2...or #6

Social Policy & Practice

- #1 General national vocational qualifications (ft)
- #2 National vocational qualifications (ft)
- #3 Vocational education and training (ft)
- #4 Vocational qualifications (ft)
- #5 BTEC (ft)
- #6 Business and technician education council (ft)
- #7 #1 or #2...or #6

VOCEDPlus

- #1 Vocational qualifications (ft)

Websites

AQA Centre for Education Research and Practice - <https://cerp.aqa.org.uk/>

Association of Colleges - <http://www.aoc.co.uk/>

Cambridge Assessment - <http://www.cambridgeassessment.org.uk/>

CBI - <http://news.cbi.org.uk/>

CEDEFOP - European Centre for the Development of Vocational Training
<http://www.cedefop.europa.eu/>

City and Guilds Centre for Skills Development - <http://www.skillsdevelopment.org/home.aspx>

Council for the Curriculum, Examinations and Assessment (CCEA) - <http://www.ccea.org.uk/>

Department for Business, Innovation and Skills (BIS) - <https://www.gov.uk/government/organisations/department-for-business-innovation-skills>

Department for Children, Education, Lifelong Learning and Skills (DCELLS) - <http://wales.gov.uk/topics/educationandskills/?lang=en>

Department for Education (DfE) - <https://www.gov.uk/government/organisations/department-for-education>

Education and Employers Taskforce - <http://www.educationandemployers.org/>

Joint Council for Qualifications (JCQ) - <http://www.jcq.org.uk/>

NIACE - <http://www.niace.org.uk/>

Northern Ireland Council for Curriculum, Examinations and Assessment (CCEA) - <http://www.ccea.org.uk/>

OCR - <http://www.ocr.org.uk/>

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Scottish Qualifications Authority (SQA) - <http://www.sqa.org.uk/sqa/5656.html>

UK Commission for Employment and Skills (UKCES) - <https://www.gov.uk/government/organisations/uk-commission-for-employment-and-skills>

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Appendix C Review template

Full reference	
Research summary/overview	
<p>Research aims:</p> <p>Key findings:</p>	
About the source	
Type of literature (e.g. research report, journal article, literature review, opinion piece)	
Study population/sample size	
Age of population e.g. 14-19, 16-retirement age	
Country/area covered e.g. UK, England only	
Research design/method e.g. analysis of dataset, longitudinal survey, consultation, interviews	
Relevance to research question 1: <i>How</i> is the value of vocational qualifications defined e.g. to what extent is the value of vocational qualifications defined numerically (e.g. increased wage premia) or qualitatively (e.g. enhanced job satisfaction)?	
Relevance to research question 2: <i>Who</i> defines the value of vocational qualifications e.g. government policy makers, businesses, awarding bodies, teachers, parents, academics or individuals taking vocational qualifications?	
Relevance to research question 3: What benefits are there of taking vocational qualifications for the <i>individual</i> e.g. in terms of personal development and efficacy; increased motivation to stay engaged; complete training and achieve; progression to higher level training, qualifications and employment; job satisfaction; and an increased wage premium?	
Relevance to research question 4: What benefits are there of vocational qualifications for <i>business</i> in terms of up-skilling the workforce; increased capacity/capability to win more work; and increased turnover?	
Relevance to research question 5: What benefits are there for <i>others</i> e.g. FE/HE providers	
Any gaps in research identified?	

Overall comment on of relevance to <i>research questions</i>	
Overall strength of evidence	
Reviewed by:	
Date:	

NFER provides evidence for excellence through its independence and insights, the breadth of its work, its connections, and a focus on outcomes.

- independent
- insights
- breadth
- connections
- outcomes

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