



Department  
for Education

# **Measuring the Net Present Value of Further Education in England 2018/19**

**May 2021**

# Contents

Summary	3
1. Key assumptions and inputs	5
1.1 Wage premia	5
1.2 Employment premia	6
1.3 Productivity spillover	7
2. Results	9
3. Sensitivity analysis	13
3.1 Deadweight	13
3.2 Productivity spillover	14
3.3 Using the cost of apprenticeship standards	15
Annex 1 – 2015 estimates	16
Annex 2 – key inputs used in the model	17

# Summary

This report estimates the net present values (NPVs) of Further Education (FE) qualifications started in 2018/19. It is an update of a 2015 paper by the Department for Business Innovation and Skills<sup>1</sup>.

The key inputs and assumptions that have changed are:

- The wage and employment premia: The estimates in this paper are calculated using more recent admin data for learning completed between 2008/09 and 2013/14, updating figures presented in a previous paper<sup>2</sup>. See tables 3 and 4 for more information.
- The productivity spillover: This was set at 100% in the 2015 estimates, based on a paper by Dearden et. al<sup>3</sup> from 2005. It is further supported by a more recent paper by London Economics<sup>4</sup> from 2016. However, we have chosen to use a more conservative estimate of 35% here - a figure judged to be a central estimate based on a review of the literature. See section 2.3 for more detail.

This report provides evidence of a continued strong return on investment in Further Education. Table 1 gives an overview of the NPV per start, NPV per £ of government funding, and NPV per £ of overall cost<sup>5</sup>. Estimates from 2015 can be found in Annex 1 and more detail on the methodology and key inputs can be found in Annex 2.

The main drivers of changes in the figures are differences in:

- wage and employment premia,
- course costs, and
- the lower productivity spillover assumption

For example, whilst the majority of the wage and employment premia have increased, this is largely outweighed by the decreased spillover assumption, giving lower NPV per start figures. On the other hand, unit costs per course are lower (except for apprenticeships where costs have increased), and this has typically increased the NPV per £ of government funding.

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<sup>1</sup> [Measuring the Net Present Value of Further Education in England](#) (Department for Business Innovation and Skills, 2015)

<sup>2</sup> [Estimation of the labour market returns to qualifications gained in English further education](#) (Department for Business Innovation and Skills, Bibby et. al. 2014)

<sup>3</sup> [The impact of training on productivity and wages : evidence from British panel data](#) (Dearden et. al., 2005)

<sup>4</sup> [BIS Research Paper 177: Estimating the impact of publicly-funded training on industry and firm-level outcomes](#), (Department for Business Innovation and Skills, 2016)

<sup>5</sup> This includes the total cost of the course and the foregone output as a result of taking time out of the labour market to study.

The table below also estimates the total NPV of 19+ Further Education – to give a sense of the total value added created by the system. It is not directly comparable with the 2015 publication<sup>6</sup>.

**Table 1: NPV of qualifications started in 2018/19 for learners aged 19+ (central estimates are gross of deadweight, with 35% spillover)**

Provision type	NPV per start	NPV per £ of government funding	NPV per £ of total cost	Total NPV (bn)
Below level 2 <sup>7</sup>	£12,000	£29	£14	£6
Full level 2	£39,000	£21	£6	£1
Full level 3	£82,000	£31	£9	£5
Level 2 Apprenticeship	£42,000	£17	£6	£4
Level 3 Apprenticeship	£48,000	£14	£5	£6
Level 4/5 Apprenticeship	£73,000	£25	£7	£4

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<sup>6</sup> In 2016/17 there was a reclassification of qualifications from full Level 2 to non-full Level 2 which saw around 183,000 learners (30% of all full Level 2 participants that year) reclassified to non-full Level 2 qualifications in that year (see [Further Education and Skills in England: March 2019 Quality and methodology information](#) for detail). This is one driver of the lower total NPV figure for full Level 2 qualifications. In general, participation in FE has decreased since the previous publication, with the exception being at Level 4+ (see [Further Education and Skills statistics](#) for more detail).

<sup>7</sup> Includes English and Maths at this level.

# 1. Key assumptions and inputs

## 1.1 Wage premia

The wage premia used in the 2015 publication of NPV estimates were taken from a paper by Bibby et. al. (2014)<sup>8</sup>. The approach to estimation was made possible by the construction of a database linking administrative FE learner information, with benefit information (from Department for Work and Pensions data) and PAYE employment histories (from HMRC data) which has now evolved into the Longitudinal Education Outcomes (LEO) study.

The wage premia compare earnings outcomes 3-5 years after completion between those who achieve a qualification and those who start but do not achieve, whilst controlling for other observable characteristics<sup>9</sup>. Bibby et. al. (2014) also looked at learners that were employed prior to a training course and used their prior earnings as a method of controlling for persistent unobserved characteristics; the results of which were used to validate the final model. Chapter 6 of Bibby et. al. (2014) assessed the robustness of this counterfactual, and the Centre for Vocational Education Research (CVER) have also done further research<sup>10</sup> to verify this counterfactual, including testing it against alternatives (e.g. people at lower levels).

These wage premia have been updated internally, using the same methodology outlined in Bibby et. al. (2014), and more recent administrative data from LEO for those who had completed learning between academic years 2008/09 and 2013/14 and their earnings up to the financial year 2016-17. The premium for apprenticeships at Level 4 and 5 has also been calculated for the first time in the latest estimates.

Table 2 gives a comparison of the previous versus new wage premia; these are estimates for the percentage increase in earnings that occur as a result of achieving a qualification. The value of progression, i.e. the ability to move to higher levels as a result of achieving a lower level, is not accounted for – hence these measure the returns when held as an individual's highest qualification. Full Level 3 and below Level 2 have seen increases in the wage premia, with full Level 2 and Level 3 apprenticeships seeing reductions. We have improved our data processing to make use of the LEO datasets and the differences may reflect this change as much as any underlying change in the actual

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<sup>8</sup> [Further education: comparing labour market economic benefits from qualifications gained](#) (Bibby et. al., 2014)

<sup>9</sup> Sex; age; region; Index of Multiple Deprivation (IMD); prior attainment, spell duration; number of previous FE learning spells; sector subject area; the number of days an individual was on active benefits in the year before learning; whether an individual has an inactive benefit spell in the year before learning; number of days in sustained (6 months) employment an individual has just before learning.

<sup>10</sup> [Settling the counterfactual debate: Is there a preferable counterfactual when estimating the returns to vocational qualifications?](#) (CVER, 2018)

wage impact of a qualification.

**Table 2: Wage premia, comparing the latest and previous estimates for learners aged 19+**

Provision type	Wage Premium (3-5 year average)		
	Old	New	Difference
Below Level 2	2%	5%	+3ppt
English and Maths <sup>11</sup>	4%	N/A	N/A
Full level 2	11%	9%	-2ppt
Full level 3	9%	16%	+7ppt
Level 2 Apprenticeship	11%	12%	+1ppt
Level 3 Apprenticeship	16%	13%	-3ppt
Level 4/5 Apprenticeship	N/A	22%	N/A

In line with the 2015 report, these wage premia are then applied to the average earnings of someone whose highest qualification is one level below the qualification being measured. For example, to calculate the increase in wages that can be expected from achieving a full level 3 qualification, the wage premium for full level 3 (16%) is multiplied by the average earnings of someone whose highest qualification is a full level 2. The earnings of someone on the level below using the LFS dataset is used rather than the non-achiever earnings because these give a better indication of average earnings over a person's lifetime. We assume no benefits for non-achievement, with NPV figures giving the average lifetime value added per learner that starts each course.

## 1.2 Employment premia

The employment premia have also been updated using the latest LEO data and are shown in table 3, together with the previous estimates. They are constructed using a similar method to the wage premia and compare the employment outcomes 3-5 years after completion between those who achieve a qualification and those who start but do not achieve, whilst controlling for other observable characteristics<sup>12</sup>. This is a measure of

<sup>11</sup> The wage and employment premia for English and Maths have not been updated as it was not possible to replicate the method used in Bibby et. al. (2014) for this qualification. These estimates are that of the 2015 paper.

<sup>12</sup> Sex; age; ethnicity; prior attainment, spell duration; number of previous FE learning spells; sector subject area; the number of days an individual was on active benefits in the year before learning; whether an individual has an inactive benefit spell in the year before learning; number of days in sustained (6 months) employment an individual has just before learning.

the likely change in the employment rate following achievement of a qualification, e.g. a Full Level 3 qualification increases the employment rate by 4 percentage points in the 19+ age group. The methodology follows that of Bibby et. al. (2014), however it has been improved as the old estimates measured any instance of employment after achieving or not achieving the qualification rather than measuring employment at a point in time each year, as was intended. This is done 3-5 years after completing the qualification.

Following the slight change in methodology, the latest estimates suggest higher employability returns, especially for apprenticeships, as returns were previously estimated to be zero. These premia are applied to the uplifted salary (uplifted by wage premium), to capture the additional wages as a result of the increased likelihood of being in employment.

**Table 3: Employment premia, comparing the latest and previous estimates**

Provision type	Employment premium (3-5 year average)		
	Old	New	Difference
Below Level 2	0ppt	1ppt	+1ppt
English and Maths <sup>13</sup>	1ppt	N/A	N/A
Full level 2	2ppt	3ppt	+1ppt
Full level 3	4ppt	4ppt	0ppt
Level 2 Apprenticeship	0ppt	4ppt	+4ppt
Level 3 Apprenticeship	0ppt	3ppt	+3ppt
Level 4/5 Apprenticeship	N/A	4ppt	N/A

### 1.3 Productivity spillover

The productivity spillover is the increase in productivity as a result of achieving the qualification, in addition to what is already captured by the learner in the form of higher wages. The 2015 estimates assumed this to be 100% of the wage increase, meaning that the productivity gain was doubled. This was based on a paper by Dearden et. al. (2005) and a similar result has been found by London Economics in 2016. Although we believe the evidence around a 100% spillover effect is plausible, we have chosen to take a more conservative estimate of 35%. This figure was judged to be a central estimate after a review of the literature looking at the impact of higher-level qualifications on

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<sup>13</sup> The wage and employment premia for English and Maths have not been updated as it was not possible to replicate the method used in Bibby et. al. (2014) for this qualification. These estimates are that of the 2015 paper.

productivity<sup>14</sup>. The NAO estimated non-wage labour costs to be 25%<sup>15</sup> and this spillover assumption allows for a small benefit on top of it.

The effect of a higher spillover is explored in the 'Sensitivity analysis' section of this paper'.

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<sup>14</sup> For example see: 1) [House of Commons, Business, Innovation and Skills and Education Committees, Education, Skills and Productivity \(2015-16\)](#), 2) [Holland, D., Liadze, I., Rienzo, C. & Wilkinson, D., \(NIESR\), BIS \(2013\) The relationship between graduates and growth across countries](#), 3) [Haskel, J. & Galindo-Rueda, F. \(2005\) Skills, Workforce Characteristics and Firm-level Productivity in England](#), 4) [Machin, S., Vignoles, A. & Galindo-Rueda, F., DfES \(2003\) Sectoral and Area Analysis of the Economic Effects of Qualifications and Basic Skills](#), 5) [London Economics, BIS \(2011\) The returns to higher education qualifications](#)

<sup>15</sup> [Department for Business, Innovation and Skills Skills Funding Agency, National Apprenticeship Service - Adult Apprenticeships](#) (NAO, 2012)

## 2. Results

These findings continue to show strong economic returns to a range of publicly funded vocational qualifications in the Further Education sector. The following tables give a breakdown of the NPV per start, NPV per £ of government funding, and NPV per £ of total cost in 2018/19 prices for:

- i. Below level 2 qualifications (table 4)
- ii. Other classroom-based qualifications (table 5)
- iii. Apprenticeships (table 6)

The results show that, on average, all levels of learning generate strong returns. The NPV per start for younger learners is typically higher than for older learners due to higher wage premia and a longer time left in the workforce<sup>16</sup>. However, the NPV per government pound tends to be lower because of greater government costs for this group compared to some co-funded older learners.

English and Maths returns have not been included as they were calculated using a different methodology in 2015<sup>17</sup> that it has not been possible to update here. Below Level 2 is higher than in the 2015 report and at face value seems to offer very strong returns on government investment. However, the NPV per pound figures should be treated with some caution. Their value largely reflects the fact that below Level 2 courses are cheaper than other forms of learning, both in government cost and foregone output<sup>18</sup>, and small increases in wage premia have a large effect on NPV per pound.

The NPV of a full Level 2 qualification is lower here than in 2015, while the full Level 3 estimate is higher. This is because of the decrease in wage premia at Level 2 (2ppts lower) and increase at Level 3 (7ppts higher).

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<sup>16</sup> Older workers have, on average, acquired greater human capital through work and life experience. This means they start at a higher wage position and have less to gain from increased training, leading to lower premia than younger counterparts.

<sup>17</sup> English and Maths had an NPV per start of £14,000 and an NPV per pound of £17 in the 2015 paper. Note that this is with 100% productivity spillover and not directly comparable to figures here.

<sup>18</sup> Foregone output is calculated using the average guided learning hours by qualification level and the average wage of the level below, i.e. how much of a learner's income is lost as a result of taking time out to study a qualification. It follows the same approach as the 2015 paper.

16-18 year old classroom learners are assumed to have zero foregone output as they are less likely to be in employment over study, however 16-18 year old apprentices are assumed to have foregone output as they are more likely to have chosen employment at the time of their apprenticeship, given the strong workplace element of the qualification.

The results also show that the NPV per £ of government funding is particularly high for full Level 2 learners aged 19-23 because of the high associated NPV and proportion of these learners that co-fund (estimated to be 30% based on a split of Adult Education Budget funding allocation and age in 2017/18), i.e. those who already have a full Level 2 and choose to study again at the same level.

For apprenticeships, we have included estimates at ages 16+ for levels 2 and 3 because a good proportion of apprentices at these levels fall into the 16-18 category<sup>19</sup>. The NPVs of frameworks are lower than in 2015 but this is mainly because of our more conservative assumption about the spillover – as wage and employment premia are mostly higher (with the exception of Level 3). The introduction of the levy system and new funding system in 2017 would impact the NPV per government pound. This change meant that the levy covers most of the cost of an apprenticeship (and is considered a cost to government for the purposes of these calculations), compared to a previously lower government contribution of around 50% for adults.

**Table 4: NPV of below level 2 qualifications started in 2018/19 (gross of deadweight, 35% spillover)**

Provision type	NPV per start	NPV per £ of government funding	NPV per £ of total cost <sup>20</sup>
Below level 2 19-23	£27,000	£44	£29
Below level 2 24+	£10,000	£23	£11
<b>Below level 2 19+</b>	<b>£12,000</b>	<b>£29</b>	<b>£14</b>

<sup>19</sup> Around 40% of level 2 apprenticeship starts were under 19 years, and around 20% at level 3.

[Apprenticeship demographic and sector subject area, 2018/19](#)

<sup>20</sup> This includes the total cost of the course and the foregone output as a result of taking time out of the labour market to study. We assume there is no foregone output for learners aged 16-18.

**Table 5: NPV of classroom-based qualifications at full level 2 and full level 3 started in 2018/19 (gross of deadweight, 35% spillover)**

Provision type <sup>21</sup>	NPV per start	NPV per £ of government funding	NPV per £ of total cost
Full Level 2 16-18	£64,000	£7	£7
Full Level 2 19-23	£70,000	£35	£11
Full Level 2 24+	£31,000	£17	£5
<b>Full Level 2 19+</b>	<b>£39,000</b>	<b>£21</b>	<b>£6</b>
Full Level 3 16-18	£91,000	£10	£10
Full Level 3 19-23	£87,000	£29	£9
Full Level 3 24+ (loan funded) <sup>22</sup>	£61,000	£25	£7
<b>Full Level 3 19+</b>	<b>£82,000</b>	<b>£31</b>	<b>£9</b>

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<sup>21</sup> There are no wage and employment premia estimates for ages 16-18 studying classroom qualifications because of data limitations. For these categories, the 19-23 returns have been used to measure benefits and 16-18 costs have been used. See Annex 2 for detail.

<sup>22</sup> These are funded through Advanced Learner Loans and a Resource Accounting and Budgeting charge of 68% is used to calculate the course cost to government. This is the RAB charge for 2019/20 and is used because the 2018/19 RAB charge of 52% is very different to future projections.

[Student Loan Forecasts for England 2019/20, Department for Education](#)

**Table 6: NPV of apprenticeships started in 2018/19 (gross of deadweight, 35% spillover)**

Provision type	NPV per start	NPV per £ of government funding	NPV per £ of total cost
Level 2 Apprenticeship 16-18	£66,000	£15	£8
Level 2 Apprenticeship 19-23	£51,000	£21	£8
Level 2 Apprenticeship 24+	£26,000	£10	£4
<b>Level 2 Apprenticeship 19+</b>	<b>£42,000</b>	<b>£17</b>	<b>£6</b>
<b>Level 2 Apprenticeship 16+</b>	<b>£53,000</b>	<b>£16</b>	<b>£7</b>
Level 3 Apprenticeship 16-18	£136,000	£22	£11
Level 3 Apprenticeship 19-23	£75,000	£19	£7
Level 3 Apprenticeship 24+	£29,000	£10	£3
<b>Level 3 Apprenticeship 19+</b>	<b>£48,000</b>	<b>£14</b>	<b>£5</b>
<b>Level 3 Apprenticeship 16+</b>	<b>£69,000</b>	<b>£16</b>	<b>£7</b>
Level 4/5 Apprenticeship 19-23	£113,000	£20	£9
Level 4/5 Apprenticeship 24+	£36,000	£16	£4
<b>Level 4/5 Apprenticeship 19+</b>	<b>£73,000</b>	<b>£25</b>	<b>£7</b>

## 3. Sensitivity analysis

This section provides an overview of the sensitivity analysis we have conducted. We looked at adjusting two key assumptions that are very uncertain: the level of deadweight and the productivity spillover. We then looked at the cost of apprenticeships – showing the results using the cost of apprenticeship standards rather than frameworks because of the shift away from frameworks to standards.

### 3.1 Deadweight

The deadweight associated with FE – i.e. the extent to which learners would have undertaken their programmes, and realised the associated benefits, in the absence of government funding – is not included in our central estimates in tables 4-6 due to the uncertainty surrounding the assumption. In other words, we provide estimates which are gross of deadweight. This section looks at how the estimates change if a level of deadweight is applied.

Table 7 shows overall NPV figures for different types of learning, assuming that 30% of the benefits may have been achieved without funding. This figure is based on work by London Economics in 2012<sup>23</sup>, however it relates only to apprenticeships and is out of date considering how the FE system has changed since then. Another estimate could be the proportion of eligible students in higher education that do not take out a maintenance or tuition fee loan – estimated to be around 20% using Student Loans Company data<sup>24</sup>.

The results show that even assuming a 30% level of deadweight, returns across FE investment remain strong.

**Table 7: NPV of qualifications started in 2018/19 for learners aged 19+ (net of deadweight, 35% spillover)<sup>25</sup>**

Provision type	NPV per start	NPV per £ of government funding	NPV per £ of total cost
Below Level 2	£8,000	£20	£10
Full level 2	£25,000	£13	£4

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<sup>23</sup> [Assessing the Deadweight Loss Associated with Public Investment in Further Education and Skills](#) (London Economics, 2012)

<sup>24</sup> Using loan uptake data from [2016/17](#), [2017/18](#) and [2018/19](#).

<sup>25</sup> English and Maths hasn't been updated here, but the corresponding figures in the 2015 paper are £10,000 NPV per learner and £12 per £ of government funding.

Full level 3 (loan and grant funded)	£55,000	£21	£6
Level 2 Apprenticeship (all ages)	£27,000	£11	£4
Level 3 Apprenticeship	£31,000	£9	£3
Level 4/5 Apprenticeship	£48,000	£16	£5

## 3.2 Productivity spillover

The productivity spillover is the increase in productivity as a result of achieving the qualification, in addition to what is already captured by the learner in the form of higher wages. The estimates published in 2015 assumed a spillover of 100% based on a paper by Dearden et. al. (2005) and London Economics (2016) whereas we have used a spillover of 35% here. While the higher spillover is plausible, we have taken a deliberately conservative approach based on a judgement of the literature<sup>26</sup>, which implies a small increase over and above non-wage labour costs.

Table 8 gives the estimates when using a spillover effect of 100%, the same figure used in the previous paper. Most of the estimates have a higher NPV per £ of government funding compared to the 2015 estimates, the exceptions being level 2 and 3 apprenticeships (£26 and £28 respectively in 2015).

**Table 8: NPV of qualifications started in 2018/19 for learners aged 19+ (gross of deadweight, 100% spillover)**

Provision type	NPV per start	NPV per £ of government funding	NPV per £ of total cost
Below Level 2	£17,000	£41	£20
Full level 2	£54,000	£29	£9
Full level 3 (loan and grant funded)	£117,000	£44	£13
Level 2 Apprenticeship	£58,000	£24	£9
Level 3 Apprenticeship	£70,000	£21	£7
Level 4/5 Apprenticeship	£106,000	£36	£11

<sup>26</sup> See section 2.3 Productivity spillover for more detail.

### 3.3 Using the cost of apprenticeship standards

Apprenticeship standards are occupation-focused qualifications, created by employers based on industry need. They were introduced in April 2016 as an alternative to apprenticeship frameworks that are mainly qualification focused. The move to standards was to ensure that at the end of an apprenticeship, the apprentice had gained the right skills for them to carry out their role. Standards are intended to be an improvement in quality of apprenticeships<sup>27</sup>.

The wage and employment premia presented here are based on the outcomes of apprentices that had completed apprenticeship frameworks, rather than standards, as the returns to standards cannot be measured yet given their infancy. Table 9 gives the NPVs for apprenticeships using the cost of standards and the benefits of frameworks. All measures have decreased as the cost for standards is higher than that of frameworks. However, this is not a true representation of the value of apprenticeship standards as the wage and employment returns may be higher than frameworks, but it is not possible to predict by how much. We therefore judge that this represents a lower bound estimate of the NPV of apprenticeship standards, as it assumes an increase in costs but zero increase in benefits. Even adopting these assumptions, apprenticeships are shown to deliver strong returns.

**Table 9: NPV of apprenticeships started in 2018/19 for learners aged 19+ (gross of deadweight, 35% spillover, using the cost of apprenticeship standards)**

Provision type	NPV per start	NPV per £ of government funding	NPV per £ of total cost
Level 2 Apprenticeship	£41,000	£13	£5
Level 3 Apprenticeship	£46,000	£9	£4
Level 4/5 Apprenticeship	£69,000	£10	£5

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<sup>27</sup> [Apprenticeship frameworks and standards: the main differences](#) (Institute for Apprenticeships and Technical Education, 2017)

## Annex 1 – 2015 estimates

**Table A1.1: NPV of qualifications started in 2013/14 for learners aged 19+ (gross of deadweight, 100% spillover)**

Provision type	NPV per start	NPV per £ of government funding	Total NPV (bn)
Below level 2	£7,000	£10	£5
English and Maths	£14,000	£17	£7
Full level 2	£66,000	£21	£28
Full level 3 (grant funded)	£68,000	£16	£5
Full level 3 (loan funded)	£67,000	£21	£4
Level 2 Apprenticeship	£61,000	£26	£12
Level 3 Apprenticeship	£88,000	£28	£10

# Annex 2 – methodology and key inputs used in calculation of NPVs

## Summary of methodology

The methodology has remained the same as the 2015 estimates. A brief summary of the methodology is presented here but more detail can be found in Annex 2 of the earlier paper<sup>28</sup>. To calculate the NPVs for different qualifications, we compare the lifetime costs and benefits of studying these qualifications:

### Costs

The costs are split into: the direct cost of the course to the individual and/or government, and the opportunity cost of time spent studying instead of working (foregone output). We calculate the cost of the course using average funding per learner as a proxy (see tables A2.2 and A2.3 below). We calculate the foregone output using the average guided learning hours (GLH) of a qualification (see table A2.4) and the average hourly wage of someone qualified to the level below (see tables A2.5, A2.6 and A2.7) e.g. the foregone output for a full Level 3 is based on the average hourly wage of an individual holding a full Level 2 as their highest qualification.

### Benefits

The benefits are calculated using the wage and employment premia (see table A2.1). The wage premium for each qualification is multiplied by the average wage of someone qualified to the level below and this amount is uplifted by the productivity spillover. This amount is then increased over the average working life using average real earnings growth as measured by labour productivity<sup>29</sup> and discounted using the Green Book's recommended rate of 3.5% for the first 30 years and 3% thereafter<sup>30</sup>.

The employment premium is multiplied by the newly uplifted wage as it represents the increased likelihood of being in employment – assumed to be at that uplifted wage.

### NPV

The NPV per start is calculated by multiplying the lifetime benefits per qualification by the associated achievement rate (see table A2.8), and then taking the costs away from this figure. For those who do not achieve, the model assumes no benefits are realised, but the full costs are incurred. Lastly, the total NPV in £billions is calculated by multiplying the number of starts in 2018/19 (see table A2.9) by the NPV per start.

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<sup>28</sup> [Measuring the Net Present Value of Further Education in England](#) (Department for Business Innovation and Skills, 2015)

<sup>29</sup> [Long term economic determinants, OBR March 2020](#) – see supporting documents for long-term determinants

<sup>30</sup> [The Green Book: appraisal and evaluation in central government](#)

**Table A2.1: Wage and employment premia of FE qualifications by age (3-5 year average)**

Notes:

1. 16-18 figures have not been calculated for classroom qualifications because of data limitations but instead use the 19-23 age as a proxy.

Provision type	Wage premium	Employment premium
Below level 2 19-23	7%	2ppt
Below level 2 24+	4%	1ppt
Below level 2 19+	5%	1ppt
Full level 2 16-18	14%	3ppt
Full Level 2 19-23	14%	3ppt
Full Level 2 24+	8%	3ppt
Full Level 2 19+	9%	3ppt
Full Level 3 16-18	16%	4ppt
Full Level 3 19-23	16%	4ppt
Full Level 3 24+	14%	4ppt
Full Level 3 19+	16%	4ppt
Level 2 Apprenticeship 16-18	16%	5ppt
Level 2 Apprenticeship 19-23	13%	4ppt
Level 2 Apprenticeship 24+	10%	3ppt
Level 2 Apprenticeship 19+	12%	4ppt
Level 2 Apprenticeship 16+	14%	4ppt
Level 3 Apprenticeship 16-18	28%	6ppt
Level 3 Apprenticeship 19-23	16%	4ppt
Level 3 Apprenticeship 24+	11%	2ppt
Level 3 Apprenticeship 19+	13%	3ppt
Level 3 Apprenticeship 16+	17%	4ppt
Level 4/5 Apprenticeship 19-23	25%	5ppt
Level 4/5 Apprenticeship 24+	16%	0ppt
Level 4/5 Apprenticeship 19+	22%	4ppt

**Table A2.2: Average funding of classroom qualifications in academic year 2018/19**

Notes:

1. Figures have been rounded to nearest £100.
2. 16-18 figures are the average funding per 16-19 student for FE colleges<sup>31</sup>. We have assumed this age group will be on two-year long qualifications while 19+ learners will be on one-year long courses.
3. 19+ figures are calculated using the Individualised Learner Record (ILR) earned funding amounts from the Adult Education Budget (AEB) in 2018/19 and total qualifications in learning.
4. The fully funded 19-23 full level 2 and full level 3 cost is used as a proxy for all 19+ age categories in an attempt to capture the full cost, based on the fact that these are fully funded by the AEB.

<b>Provision type</b>	<b>Qualification funding in-year</b>
Below level 2 19-23	£600
Below level 2 24+	£500
Below level 2 19+	£500
Full Level 2 16-18	£9,300
Full Level 2 19-23	£2,900
Full Level 2 24+	£2,900
Full Level 2 19+	£2,900
Full Level 3 16-18	£9,300
Full Level 3 19-23	£3,600
Full Level 3 24+	£3,600
Full Level 3 19+	£3,600

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<sup>31</sup> [Further Education expenditure Parliamentary Question 2021](#)

**Table A2.3: Average cost of apprenticeship framework and standard qualifications in academic year 2018/19**

Notes:

1. These are the average cost per start, including funding band, additional payments and any negotiated price.
2. Figures have been rounded to nearest £100.

<b>Provision type</b>	<b>Framework cost per start</b>	<b>Standard cost per start</b>
Level 2 Apprenticeship 16-18	£4,400	£5,800
Level 2 Apprenticeship 19-23	£2,400	£3,100
Level 2 Apprenticeship 24+	£2,500	£3,300
Level 2 Apprenticeship 19+	£2,400	£3,200
Level 2 Apprenticeship 16+	£3,300	£4,100
Level 3 Apprenticeship 16-18	£6,300	£11,900
Level 3 Apprenticeship 19-23	£3,900	£7,100
Level 3 Apprenticeship 24+	£3,000	£4,000
Level 3 Apprenticeship 19+	£3,400	£5,000
Level 3 Apprenticeship 16+	£4,200	£6,400
Level 4/5 Apprenticeship 19-23	£5,700	£8,300
Level 4/5 Apprenticeship 24+	£2,200	£6,200
Level 4/5 Apprenticeship 19+	£3,000	£6,600

**Table A2.4: Average guided learning hours (GLH) for qualifications in academic year 2018/19**

Notes:

1. Figures have been rounded to nearest 10.
2. For classroom qualifications, GLH has been calculated using the ILR and do not include study in school sixth forms.
3. The 19-23 entitlement figure has been used for full Level 2 and full Level 3 qualifications in an attempt to isolate the GLH for “full” levels.
4. For apprenticeships, the GLH are largely rooted in reasonable assumptions. Firstly, we take the expected duration of an apprenticeship in 2018/19<sup>32</sup>. Then we assume that an apprentice works a full-time working week equivalent to 37 hours and takes 20% of that time to complete off-job-training. This off-the-job time is considered the GLH of an apprenticeship.

Provision type	Average guided learning hours
Below level 2	70
Full level 2	410
Full level 3	580
Level 2 apprenticeship	520
Level 3 apprenticeship	660
Level 4/5 apprenticeship	670

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<sup>32</sup> [Apprenticeship expected duration by age, level and sector subject area 2016 to 2017 and 2018 to 2019 \(Department for Education, 2019\)](#)

**Table A2.5: Median weekly earnings by highest classroom qualification held for ages 19-65 in 2019**

Notes:

1. Figures have been rounded to nearest £50.
2. Figures for level 2 and level 3 are not “full” levels but it was not possible to get to that level of detail within the data.
3. These are calculated using the Q3 of the 2019 Labour Force Survey for ages 19-65. Variables that were used were GRSSWK, FTPT and HIQUAL15.

Provision type	Employed full-time	Employed part-time
No qualification	£400	£150
Below level 2	£400	£200
Level 2	£450	£200
Level 3	£450	£200

**Table A2.6: Full-time and part-time split by highest classroom qualification held for ages 19-65 in 2019**

Notes:

1. Figures are rounded to nearest 5 percent.
2. These are calculated using the Q3 of the 2019 Labour Force Survey for ages 19-65. Variables that were used were FTPT and HIQUAL15.

Provision type	Employed full-time	Employed part-time
No qualification	70%	30%
Below level 2	70%	30%
Level 2	70%	30%
Level 3	75%	25%

**Table A2.7: Proportion of unemployed and inactive by highest qualification held in 2019<sup>33</sup>**

Notes:

1. Figures for level 2 and level 3 are not “full” levels but have been used as best available proxy.

Provision type	Unemployed	Inactive
No qualification	5%	48%
Below level 2	5%	25%
Level 2	3%	21%
Level 3	3%	14%

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<sup>33</sup> [Economic inactivity by qualification level](#) and [Unemployment by qualification level](#), both as published 15/12/2020

**Table A2.8: Achievement rates in 2018/19 by age<sup>34</sup>**

Notes:

1. For classroom qualifications, the same figure has been used for ages 19 and up because these are not broken down in the same age groups as apprenticeships.

Provision type	Achievement rate
Below level 2 19-23	91%
Below level 2 24+	91%
Below level 2 19+	91%
Full level 2 16-18	82%
Full Level 2 19-23	88%
Full Level 2 24+	88%
Full Level 2 19+	88%
Full Level 3 16-18	85%
Full Level 3 19-23	79%
Full Level 3 24+	79%
Full Level 3 19+	79%
Level 2 Apprenticeship 16-18	66%
Level 2 Apprenticeship 19-23	66%
Level 2 Apprenticeship 24+	61%
Level 2 Apprenticeship 19+	63%
Level 2 Apprenticeship 16+	64%
Level 3 Apprenticeship 16-18	72%
Level 3 Apprenticeship 19-23	70%
Level 3 Apprenticeship 24+	61%
Level 3 Apprenticeship 19+	64%
Level 3 Apprenticeship 16+	66%

<sup>34</sup> [Further education and skills, National Achievement Rates Tables: 2018/19](#) (overall and apprenticeships specific)

Level 4/5 Apprenticeship 19-23	63%
Level 4/5 Apprenticeship 24+	58%
Level 4/5 Apprenticeship 19+	59%

**Table A2.9: Number of starts in 2018/19 aged 19+**

Notes:

1. Figures are rounded to nearest 100.
2. These figures count learners only once based on hierarchy of course started. For example, if a learner has started a full-level 2 in 2018/19 as well as a below level 2, they are counted in the full Level 2 category.
3. Below level 2 includes English and Maths at this level.

<b>Provision type</b>	<b>Number of starts</b>
Below level 2 19+	498,600
Full Level 2 19+	34,400
Full Level 3 19+	55,500
Level 2 Apprenticeship 19+	87,200
Level 3 Apprenticeship 19+	133,900
Level 4/5 Apprenticeship 19+	50,000



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