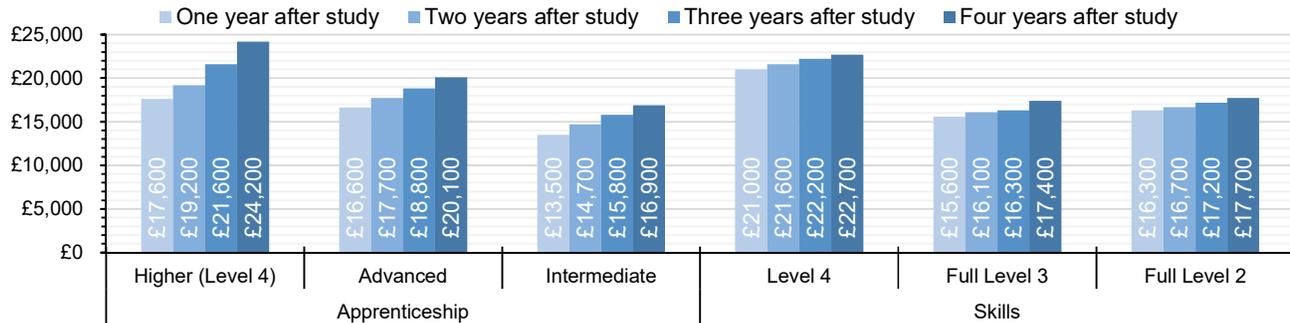




30 Nov 2017

Median annualised earnings grow at a faster pace for apprenticeships at all levels

Median earnings for learners that achieved in academic year 2010/11



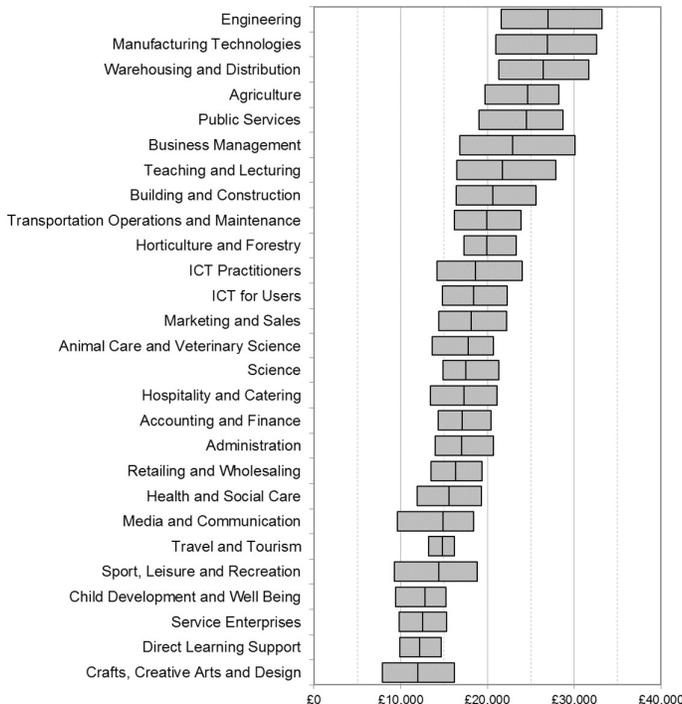
Source: Longitudinal Education Outcomes (LEO) Study.

Median annualised earnings for learners that achieved in academic year 2010/11 were:

- £17,600 one year after study for **higher (level 4) apprenticeships** rising 37% to £24,200 four years after study.
- £21,000 one year after study for **level 4 skills courses** rising 9% to £22,700 four years after study.
- £16,600 one year after study for **advanced apprenticeships** rising 21% to £20,100 four years after study.
- £15,600 one year after study for **full level 3 skills courses** rising 12% to £17,400 four years after study.

Large variation exists in median annualised earnings across sector subject areas

Median earnings for advanced apprenticeships in academic year 2014/15, sector subject area (tier 2)



One year after study, median annualised earnings for learners that achieved an **advanced apprenticeship** in academic year 2014/15 were:

- Highest in engineering at £27,000, and manufacturing technologies at £26,900.
- Lowest in crafts, creative arts and design at £12,000.

The sector subject area with most achievers of an advanced apprenticeship was Health and Social Care, which had 7,990 achievers and median earnings of £15,600.

The earnings estimates are lower where there are typically higher numbers of learners in part time employment, such as apprenticeships in childcare.

This, and further features of the data described later in this paper, should be considered when interpreting the estimates.

Source: Longitudinal Education Outcomes (LEO) Study.

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About this release

This publication presents estimates on the earnings outcomes of learners that achieved an apprenticeship or adult learners that achieved a skills course at full level 2, full level 3, level 4 or higher. It does not include community learners, learners funded through the Offenders' Learning and Skills Service (OLASS), and FE and Skills learners under the age of 19 at the start of the academic year (apart from Apprenticeships).

Data come from the linked administrative data that form the Longitudinal Education Outcomes (LEO) Study. This publication focuses on learners that achieved apprenticeships or FE and Skills training between August 2010 and July 2015 and their observed earnings after training up to the 2015/16 tax year.

We have published similar statistics from LEO data previously, details of these publications are provided at the end of this paper.

In this publication

The following tables are included alongside this release:

- Subject tables (Excel .xls)

The annex to this paper explains the methodology used to produce the estimates and references further information on the data sources, their coverage and quality.

Feedback

We welcome feedback on any aspect of this document and the methodology and presentation of these statistics. Please direct all comments and queries to FE.OutcomesData@education.gov.uk.

1. Introduction

This publication presents earnings estimates post-training for learners that achieved in academic years 2010/11 to 2014/15. Earnings are presented up to four years after a learner achieved, and are presented by gender, level, and qualification.

The data presented here update [previous estimates](#) on earnings post-apprenticeship released in December 2016 and extend the analysis to include non apprentices that achieved in adult (19+) FE training. The estimates come from the Longitudinal Education Outcomes (LEO) Study¹ which is formed of administrative data on learners across schools, further education and higher education joined together with their employment and benefit histories. Other recent statistical releases and research publications that utilise LEO data are listed at the end of this publication.

Separate [research](#)² from LEO has previously estimated the labour market returns to different further education qualifications. This showed that when comparing learners with similar characteristics and a similar level of education, those who achieve further education qualifications are better off than those who achieve a similar qualification at a lower level. On average, for males at age 26, achievers of intermediate apprenticeships earn 23.6% more and achievers of advanced apprenticeships earn 21.5% more than learners that achieve at a lower level.

The earnings estimates published here are experimental and known features should be considered when interpreting them, such as impact of lower income for those in part time employment. These effects are described in greater detail in section 3.

Coverage

All measures shown here cover all Apprenticeships, and adult (19+) FE and Skills learners that completed and achieved an eligible Education and Skills Funding Agency (ESFA) funded aim at full level 2, full level 3, or level 4 or higher in academic years 2010/11 to 2014/15. Learners must also have achieved an eligible qualification in the same academic year in which they completed.

The earnings estimates are based on information recorded through the Pay As You Earn (PAYE) system used to collect Income Tax and National Insurance from employment by Her Majesty's Revenue and Customs (HMRC). They show what learners actually earned post study, and include learners who may not have been employed in the same sector in which they achieved their apprenticeship or training. Any income recorded through the self-assessment tax system has not been included in the estimates, though we are looking to develop this new source of earnings data for future releases.

Measures

This report presents the **median annualised earnings** of learners. The **median** is calculated by ranking all learners' annualised earnings and taking the value at which half of learners fall above and half fall below.

In addition to the median, the annualised earnings for the top 25% (or **upper quartile**) and bottom 25% (or **lower quartile**) are also presented to help users understand more about how earnings are distributed.

In the case of all measures, the estimates only include learners that were in sustained employment in the tax year being measured and were not in further training at a Higher Education institute (as reported by Higher Education Statistics Agency).

Annualised earnings are calculated for learners that started or left employment part way through the tax year by adjusting their recorded earnings to the equivalent earnings had they been employed for the entire tax year. The PAYE system does not record reliable information on hours worked so part time earnings have not been adjusted to the full time equivalent.

A full definition of sustained employment and how the earnings measures were calculated is provided in the Technical Annex.

¹ The [privacy notice](#) on gov.uk explains how LEO data is shared and used.

² Patrignani, Conlon and Hedges (2017), "The earnings differentials associated with vocational education and training using the Longitudinal Education Outcomes data", Centre for Vocational Education Research, Research Paper 007.

2. Headline findings

For learners that achieved in academic year 2010/11, the median annualised earnings in the first full tax year after training were greater at higher levels, with highest earnings for learners that achieved at level 4 or level 5. Earnings one year after training were:

- £17,600 for higher (level 4) apprenticeships, £16,600 for advanced level apprenticeships and £13,500 for intermediate apprenticeships.
- £21,000 for level 4 skills courses, £15,600 for full level 3 skills courses, and £16,300 for full level 2 skills courses.

Earnings also increased steadily each extra year after achievement, with growth in earnings post-apprenticeship being higher than growth in earnings after achieving a skills course at the same level:

- On average, median annualised earnings rose 8% every year for intermediate apprenticeships, 7% every year for advanced apprenticeships, and 11% for higher (level 4) apprenticeships.
- On average, median annualised earnings rose 3% per year for full level 2 skills courses, 4% per year for full level 3 skills courses, and 3% per year for level 4 skills courses.

Table 1: Median annualised earnings by level

All achievers, academic year 2010/11

Median annualised earnings following training									
	One year	Two years	Three years	Four years	Skills	One year	Two years	Three years	Four years
Apprenticeship									
Higher (level 4)	£17,600	£19,200	£21,600	£24,200	Level 4	£21,000	£21,600	£22,200	£22,700
Advanced	£16,600	£17,700	£18,800	£20,100	Full Level 3	£15,600	£16,100	£16,300	£17,400
Intermediate	£13,500	£14,700	£15,800	£16,900	Full Level 2	£16,300	£16,700	£17,200	£17,700

Source: Longitudinal Education Outcomes (LEO) Study.

Learners that achieved an apprenticeship in more recent years have seen higher median earnings in the tax year after achieving for all levels. Median annualised earnings for learners that achieved a higher (level 4) apprenticeship in 2014/15³ was £20,000, 14% higher than the median annualised earnings of learners that achieved in 2010/11.

Table 2: Median annualised earnings for apprenticeships by level and academic year

	Academic year of achievement				
	2010/11	2011/12	2012/13	2013/14	2014/15 ³
Higher (Level 4)	£17,600	£18,300	£18,700	£19,200	£20,000
Advanced	£16,600	£16,200	£16,800	£17,200	£17,200
Intermediate	£13,500	£13,300	£14,200	£14,900	£15,100

Source: Longitudinal Education Outcomes (LEO) Study.

In addition to higher earnings, there have also been year-on-year increases in the number of apprenticeships that achieved at advanced and higher levels and in 2012/13 learners started to achieve new apprenticeships at level five for the first time. These learners progressed into jobs with median annualised earnings after training of £27,100 and have seen consistently high earnings in each year since.

Comparing female and male earnings

Median earnings for males are higher than for females across all years, all levels and all types of training.

³ 2014/15 earnings are only presented for learners that achieved before April 2015 so that post-training earnings could be calculated for the tax year after learning. Please see the technical annex for more detail.

Table 3: Median annualised earnings male vs. female, 2011/12

	Female median annualised earnings			Male median annualised earnings		
	One year after study	Two years after study	Three years after study	One year after study	Two years after study	Three years after study
Higher (level 4) apprenticeship	£18,100	£19,900	£21,900	£18,800	£21,200	£24,000
Advanced apprenticeship	£14,200	£15,000	£15,600	£19,600	£21,600	£23,200
Intermediate apprenticeship	£11,800	£12,800	£13,800	£15,400	£16,900	£18,400
Level 4 skills	£18,400	£19,200	£19,800	£24,300	£25,300	£26,000
Full Level 3 skills	£12,600	£13,300	£13,900	£18,300	£19,200	£19,600
Full Level 2 skills	£12,500	£13,000	£13,600	£19,000	£19,700	£20,400

Source: Longitudinal Education Outcomes (LEO) Study.

Some of the difference in earnings could be a result of factors other than training, such as:

- the number and proportion of achievers in part time employment;
- the employment history of achievers;
- pay conditions within the local labour market;
- any additional income recorded through the self-assessment tax system;
- characteristics of individual learners.

For example, females made up 95% of apprenticeships (of any level) in child development and wellbeing, a sector where many of the employment opportunities are part time, and the median annualised earnings are therefore lower. The effects of part time employment and self-assessment are discussed in more detail in section 3.

Some of the difference in median earnings between learners is related to the specific qualifications that were achieved. Males are much more likely to participate in (and therefore achieve at) qualifications in sectors such as construction or engineering (including vehicle maintenance) which have relatively high estimated earnings after study. For example, looking at qualifications achieved by intermediate apprenticeships, all of the top 10 highest estimated earnings were for frameworks that were at least 90% male in composition. The analysis in this report focuses on intermediate apprenticeships, but the differences between male and female earnings are similar for all levels and provision types.

Table 4: Frameworks with the highest median annualised earnings one year after study

Intermediate apprenticeships, academic year 2011/12

Intermediate apprenticeship - framework title	Median annualised earnings	Number of achievers	Percent male
Power Industry	£34,900	30	100%
Water Industry	£32,400	60	100%
Vehicle Sales	£23,800	80	100%
Electrical and Electronic Servicing	£22,900	50	100%
Driving Goods Vehicles	£22,500	2,490	96%
Engineering	£22,200	4,810	94%
Providing Security Services	£21,600	1,620	94%
Mail Services	£21,500	60	100%
Road Passenger Transport - Bus and Coach	£21,500	580	91%
Carry and Deliver Goods	£21,300	210	100%

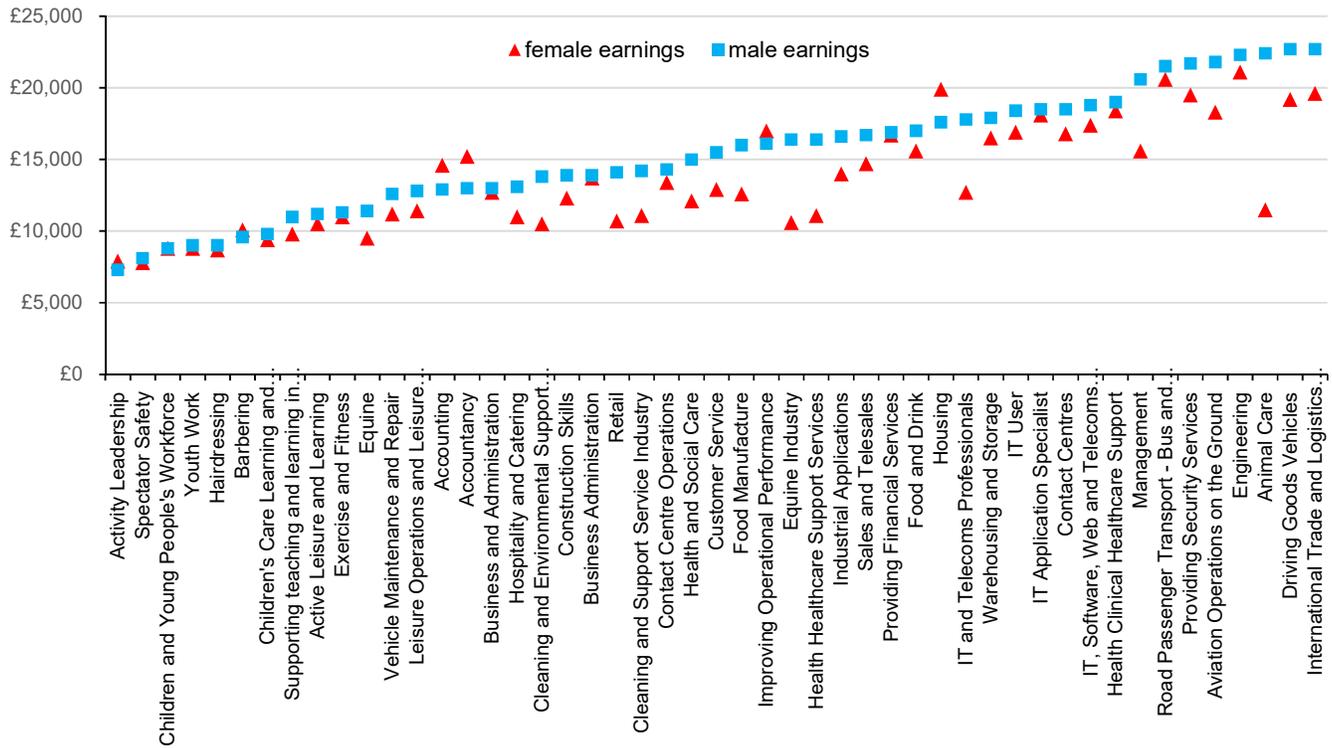
Source: Longitudinal Education Outcomes (LEO) Study.

Looking at all intermediate apprenticeship frameworks achieved by at least 30 females there are other factors that are difficult to account for which could also affect the earnings estimate. For example, qualifications in activity leadership or spectator safety are likely to lead to part-time or volunteer work, which would lower the earnings estimate. Most frameworks have higher estimated earnings for males compared to females, with a few exceptions.

Males that achieve an intermediate apprenticeship are likely to have higher earnings one year after training

Figure 1: Earnings one year after study for all intermediate apprenticeship achievers, academic year 2011/12, by framework

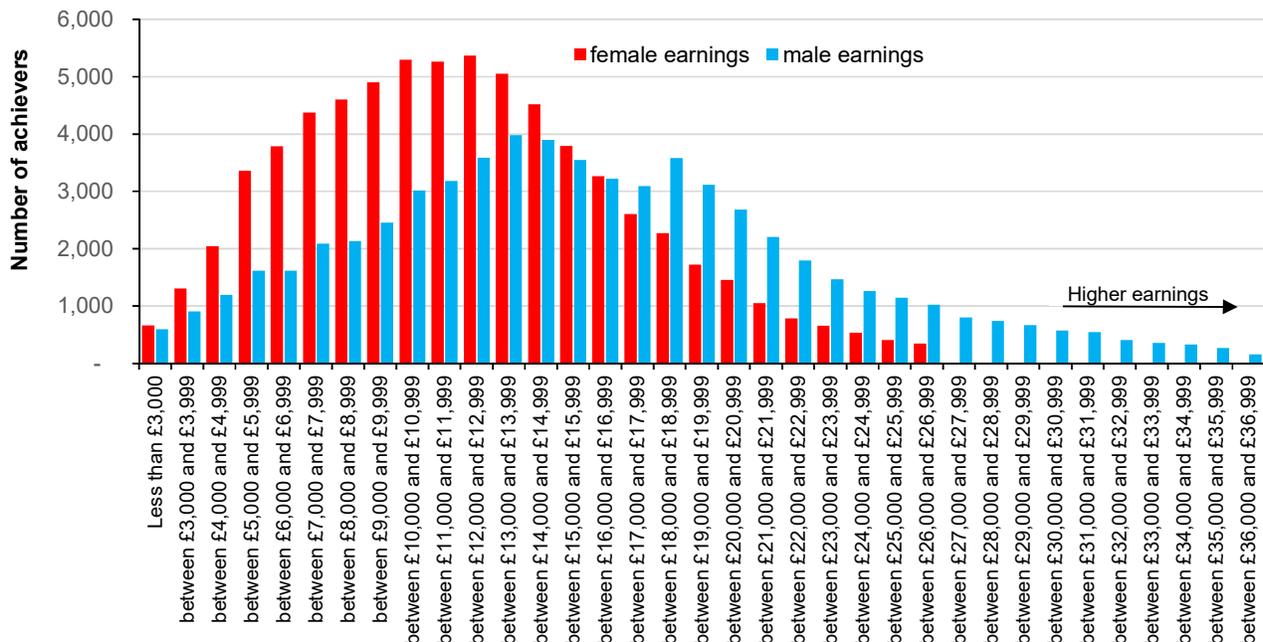
All qualifications with at least 30 female and 30 male achievers



Source: Longitudinal Education Outcomes (LEO) Study.

The number of learners that achieved each qualification also affects the distribution of earnings, with a large number of males achieving qualifications in relatively well-paid IT and Health support qualifications, resulting in a peak in male earnings after study (at £18,000 to £18,999) which is not reflected in the distribution of female earnings.

Figure 2: Distribution of earnings one year after study for all intermediate apprenticeship achievers, academic year 2011/12, by female/male.



Source: Longitudinal Education Outcomes (LEO) Study.

3. Features of the data

Sample size and rounding

The median annualised earnings are rounded to the nearest one hundred pounds and have been published where there are valid earnings for at least 30 learners within a tax year.

All distribution charts have been capped below 2.5% and above 97.5% to remove any risk of disclosure.

Part time employment

The PAYE records from HMRC do not include reliable information on the hours worked in employment so it is not possible to accurately distinguish between learners in full time and part time employment. Therefore part time earnings are not adjusted to the full time equivalent amount.

Where there are high levels of part time employment within a group of learners, the median annualised earnings will be lower as a result. This is the case for sector subject areas like child development and wellbeing where many of the employment opportunities are part time. It is important to note that the number of people in part time employment may be as much due to the preferred working pattern of the learners as what is being offered by employers.

Self-assessment income

The estimates do not include any income that was recorded through the self-assessment tax system. This means that earnings will be underreported for learners who have self-assessment income in addition to earnings from paid employment collected by the PAYE system. Learners that recorded their income entirely through the self-assessment tax system are not included in the estimates.

Self-assessment information on sole traders has been used to update employment estimates for further education learners in the most recent outcome-based success measures [publication](#)⁴. For earnings, the data is more complex and further development work is required to use this source to develop a robust estimate.

Low earners

Historically, employers were not required to supply HMRC with tax and employment information for employees that earned below the National Insurance lower earnings limit. In April 2013 HMRC introduced Real Time Information, from which point nearly all employees are captured⁵. So far there has been little evidence of this having any significant impact on the earnings estimates.

4. Accompanying tables

The following tables are available in Excel format on the department's statistics website:

<https://www.gov.uk/government/statistics/average-earnings-post-apprenticeship-2010-to-2015>

2010/11 cohort

- 1a Annualised earnings post training by level, provision type, and gender, 2010/11
- 1b Annualised earnings post training by sector subject area tier 1, provision type, and gender, 2010/11
- 1c Annualised earnings post training by sector subject area tier 2, provision type, and gender, 2010/11
- 1d Annualised earnings post training by framework/qualification, and gender, 2010/11

2011/12 cohort

- 2a Annualised earnings post training by level, provision type, and gender, 2011/12
- 2b Annualised earnings post training by sector subject area tier 1, provision type, and gender, 2011/12
- 2c Annualised earnings post training by sector subject area tier 2, provision type, and gender, 2011/12
- 2d Annualised earnings post training by framework/qualification, and gender, 2011/12

⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/654370/SFR52_2017.pdf

⁵ Since April 2013 HMRC require employers to return information for all employees if any of their employees are paid above the threshold for National Insurance. Previously employers were required to return information only for employees that were paid above the tax threshold; however, in practice many employers return information for all their employees anyway.

2012/13 cohort

3a Annualised earnings post training by level, provision type, and gender, 2012/13

3b Annualised earnings post training by sector subject area tier 1, provision type, and gender, 2012/13

3c Annualised earnings post training by sector subject area tier 2, provision type, and gender, 2012/13

3d Annualised earnings post training by framework/qualification, and gender, 2012/13

2013/14 cohort

4a Annualised earnings post training by level, provision type, and gender, 2013/14

4b Annualised earnings post training by sector subject area tier 1, provision type, and gender, 2013/14

4c Annualised earnings post training by sector subject area tier 2, provision type, and gender, 2013/14

4d Annualised earnings post training by framework/qualification, and gender, 2013/14

2014/15 cohort

5a Annualised earnings post training by level, provision type, and gender, 2014/15

5b Annualised earnings post training by sector subject area tier 1, provision type, and gender, 2014/15

5c Annualised earnings post training by sector subject area tier 2, provision type, and gender, 2014/15

5d Annualised earnings post training by framework/qualification, and gender, 2014/15

5. Other publications using LEO data

Publication	Description
Outcome based Success measures	Destinations (into employment and learning) and progression of completers of apprenticeship and adult Further Education skills courses
Destinations of KS4 and KS5 pupils: 2016	Data on key stage 4 (KS4) and key stage 5 (KS5) students going into education, employment and training destinations.
Graduate outcomes for all subjects by university	Employment and earnings of higher education graduates broken down by graduate characteristic, subject studied and university attended.
Graduate outcomes, by degree subject and university	Employment and earnings of higher education graduates broken down by graduate characteristic, subject studied and university attended.
Average earnings post apprenticeship: 2010 to 2015	Average earnings up to 4 years after training for adults that achieved Apprenticeships between August 2010 and July 2013.
Further education for benefit claimants	Analyses training for learners on benefits in England using government data for the 2015 to 2016 academic year.
The earnings differentials associated with vocational education and training	Research analysing the economic benefits to an individual from achieving further education qualifications.
Further education qualifications in maths and English: returns and benefits	Research analysing the economic benefits associated with further education qualifications in maths and English.
Adult further education: measuring success - detailed proposals	Consultation and response on detailed proposals for using and publishing outcome based success measures for adult further education.
Further education: comparing labour market economic benefits from qualifications gained	Estimates the economic benefits to an individual from achieving further education qualifications.

Publication	Description
Further education: impact of skills and training on the unemployed	This research estimates the economic benefits to unemployed individuals from achieving further education qualifications.
Average earnings after further education: 2010 to 2013	Experimental data showing average earnings up to 3 years after completing further education study, by qualification achieved in 2009 to 2010.

6. Technical information

A short methodology document is included as an annex within this paper. This explains the methodology to produce the estimates and references further information on the data sources, their coverage and quality.

7. Get in touch

Media enquiries

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Other enquiries/feedback

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Annex A: Technical note

This annex provides further technical information on how the estimates in this paper have been produced. Cohort estimates are based on the definitions used for outcome-based success measures; further details on which can be found in that publication [here](#), alongside details on the matching process and underlying data sources.

Learners in scope

The set of learners used in outcome-based success measures have been further filtered to include only those that achieved the qualification they completed. This publication includes estimates for all apprenticeships and adult (19+) FE and skills learners that achieved an eligible aim at full level 2, full level 3, or at level 4 or higher in academic years 2010/11 to 2014/15. The latest year of earnings data relates to the 2015/16 tax year so any learners that achieved their apprenticeship after 5 April 2015 would not have had sufficient time for a full tax year of earnings to be calculated and are excluded from any estimates.

Learners with multiple learning aims

Within each academic year, estimates are reported on a learner, rather than a learning aim basis. In the case where a learner achieved multiple eligible aims within the academic year, estimates are reported against their highest level aim. Where a learner achieved more than one aim at the same level, the estimate is reported against the most recently achieved. The full hierarchy used to select between aims is listed below:

- Highest qualification
 - Higher apprenticeship (Level 7)
 - Level 7
 - Higher apprenticeship (Level 6)
 - Level 6
 - Higher apprenticeship (Level 5)
 - Level 5
 - Higher apprenticeship (Level 4)
 - Level 4
 - Advanced apprenticeship
 - Full Level 3
 - Intermediate apprenticeship
 - Full Level 2
- Most recently achieved aim.
- Lowest aim sequence number (a unique number used in the Individualised Learner Record).

Measure: sustained employment

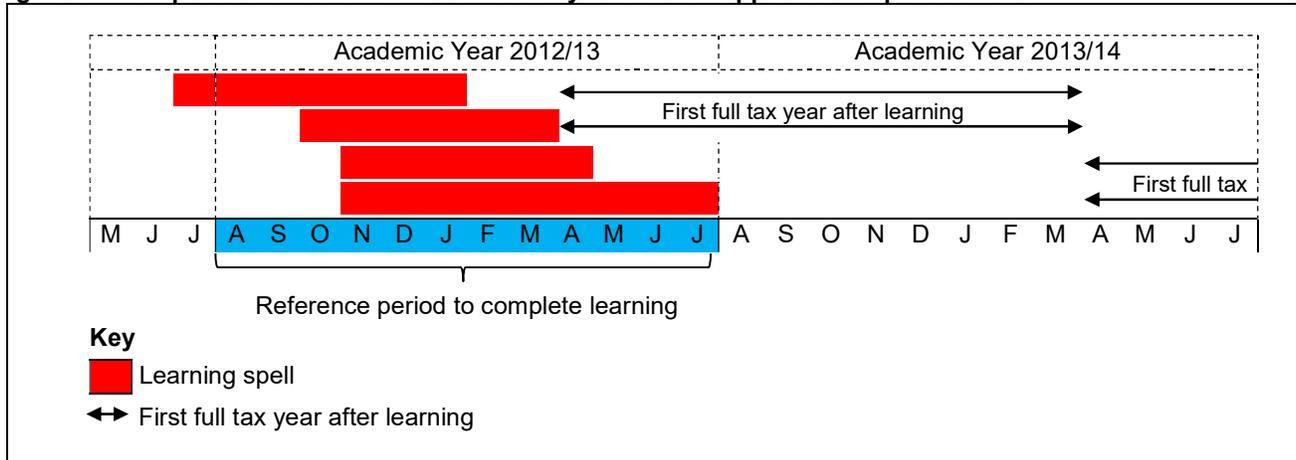
For learners to be in sustained employment they must have been recorded in paid employment in five out of six months between October and March in the tax year of interest. This is calculated using the same methodology as for outcome-based success measures – further details can be found in the technical note in the annex of that publication [here](#).

Measure: annualised earnings

The earnings estimates are calculated on a tax year basis, e.g. 6 April 2015 to 5 April 2016. Earnings are first reported in the first full tax year after the recorded end date of the apprenticeship. Apprenticeships are not fixed to the academic year cycle so may end on any date, which means that the gap between the date a learner achieved their apprenticeship and the next full tax year can range from anywhere between 1 day

(if their training finished on 5 April) and a year (if their training finished on 6 April). Some examples are shown in Figure 9 below.

Figure 9: Example scenarios of how the first tax year after an apprenticeship is selected



The estimates only include learners that in the tax year being measured

- were in sustained employment;
- had some recorded earnings;
 - any zero or negative earnings are excluded as these normally refer to corrections from the previous financial year;
 - where learners have multiple employments within a tax year their earnings from all employments are summed together;
- were not in further training at a Higher Education institute;
 - learners are excluded where the financial year and academic years overlap, e.g. if they were at a Higher Education institute in the 2012/13 academic year then their earnings for the 2012/13 tax year are not included in the earnings estimates;
 - learners in further training at a Further Education institute are included in the measure.

The **median** earnings is calculated by ranking all learners' annualised earnings and taking the value at which half of learners fall above and half fall below.

The **lower quartile** earnings is calculated by ranking all learners' annualised earnings and taking the value at which three quarters of learners fall above and one quarter fall below.

The **upper quartile** earnings is calculated by ranking all learners' annualised earnings and taking the value at which one quarter of learners fall above and three quarters fall below.

All estimates are in nominal terms, i.e. not adjusted for inflation.



Department for Education

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download: <https://www.gov.uk/government/statistics/further-education-outcome-based-success-measures-2014-to-2015>

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