Exploring Salary Outcomes for Level 3 BTEC National Learners

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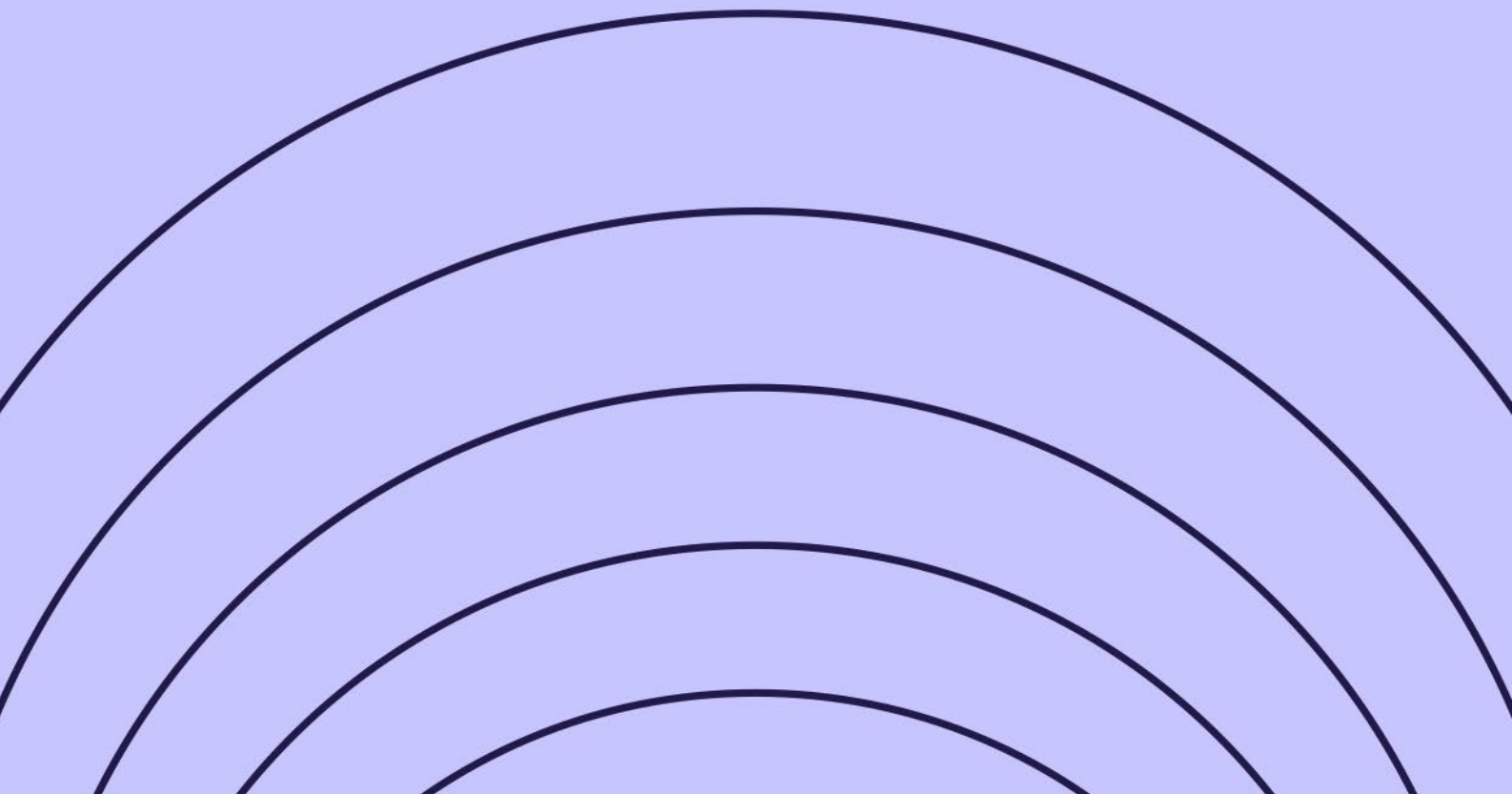

Contents

This work was produced using statistical data from ONS. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce ONS aggregates.

Summary

This research considers salary outcomes for learners completing BTEC Nationals and equivalent Level 3 qualifications. The key aim of this analysis is to understand the relationships, in terms of salary, between Level 3 qualifications taken in the 16—19 phase, onward progression routes (HE or direct to work) and selected learner characteristics, such as economic background or Key Stage 4 attainment.

Headline findings

- **In comparison to other VTQs, BTECs lead to higher salaries.** This is mostly the case regardless of whether or not learners go to university.
- **BTECs are the best route for labour market entrants seeking to maximise their early-career earnings.** Among those choosing to go directly to HE after Level 3, BTEC learners tend to earn higher salaries in the first few years of work compared to those taking other VTQs or A levels. As they mature into the labour market, A level learners consistently earn more than those taking VTQs.
- **BTECs help to uplift the performance of some students in low-performing socio-economic groups in the labour market.** The research shows clear relationships between learner characteristics (economic status, GCSE grades and gender) and expected salary; our analysis indicates BTECs appear to narrow these disadvantage gaps, particularly for learners going to HE.
- **Female learners gain a significant salary benefit from studying BTECs compared to other Level 3 qualifications.** In some instances, BTECs reverse national trends for gender salary gaps. This is seen particularly for female workers using a BTEC qualification to access university, who start their careers on a higher salary than their male peers.
- **BTEC learners who go on to work in an occupation related to the subject they studied at Level 3, tend to earn the highest salaries.** The analysis shows significantly higher salary increases for learners choosing the HE route when working in the sector allied to the BTEC they studied, and particularly so in the health and social care sector.

Context and aims for this research

Vocational and Technical Qualifications (VTQs) sit in the Level 3 education space for 16–19-year-olds wishing to pursue an alternative to A levels leading to higher study or directly to the labour market. Level 3 BTEC Nationals are by some degree the largest and best-known VTQs for 16-19 -year-olds, with around 200,000 certificates issued each year for these qualifications.

In recent years, a number of research reports have examined employment outcomes for learners taking VTQs, some focusing on comparison to other qualifications such as A levels as well as considering the complexity of learner characteristics including family income and school attainment, e.g (Patrignani et al., 2019). At a headline level, this research shows that learners taking VTQs, and particularly BTECs, tend to see greater early earnings in the labour market than their peers taking academic qualifications, but the salary effect begins to reverse following completion of higher education (HE), and as learners mature in the labour market.

In England, with no national curriculum beyond age 16, and a wide variety of pathways through the 16—19 phase, making links between a single qualification studied and longer-term salary outcomes is not straightforward. Learner characteristics themselves are strongly tied to the qualification choices that learners make at age 16; for example, outcomes at Key Stage 4 affect the likelihood of learners choosing any particular Level 3 pathway over another. Those learners with high GCSE scores at Key Stage 4 may go on to gain higher degree classifications than others, but this may owe as much to their Key Stage 4 outcomes as their Level 3 qualification choices (Gill & Vidal Rodeiro, 2014).

As such, detailed labour market outcomes for learners taking VTQs in England are under-researched at a granular level. As part of Pearson's ongoing cycle to evaluate the impact of BTEC qualifications, the present report uses longitudinal public datasets to measure salary outcomes for students taking Level 3 qualifications.

This report summarises research into salary outcomes for learners completing their Level 3 studies from the year 2012/13 to 2015/16. The data used are taken from the Longitudinal Education Outcomes[1] (LEO) dataset, created by the Department for Education (DfE) in England. This research aims to answer two main questions:

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1 Department for Education; HM Revenue and Customs; Department for Work and Pensions; Higher Education Statistics Agency, released 01 November 2023, ONS SRS Metadata Catalogue, dataset, Longitudinal Education Outcomes SRS Iteration 2 Standard Extract - England, https://doi.org/10.57906/pzfv-d195

- What are the salary outcomes for learners completing Level 3 BTEC Nationals?
- How effective are BTECs in contributing to employment pipelines in key sectors?

By analysing learners in groups with otherwise similar characteristics, we can observe relationships between the Level 3 qualification taken and labour market outcomes. To provide context, we have looked at these findings alongside those for other equivalent VTQs and A levels, but this analysis is not primarily designed as a comparison study, given the range of factors likely to impact salary including choice of occupation and region.

The research approach

The project uses descriptive data and ordinary least squares regression modelling to highlight clear relationships between earnings for learners who have taken different Level 3 and higher education (HE) routes, and through a selection of variables (learner characteristics). This research looks at how the routes selected correlate with salary outcomes, and how these interact with social and demographic characteristics. We have used traditional statistical methods, including hypothesis testing, to identify and report statistically significant effects; p-values are provided in model outputs.

Limitations to this approach lie mainly in the complexity of the datasets, and the necessary assumptions made about which routes learners have followed through Key Stage 4 (KS4), Level 3, and into HE and/or work. These are detailed in the accompanying *Data Annexes*.

The cohorts

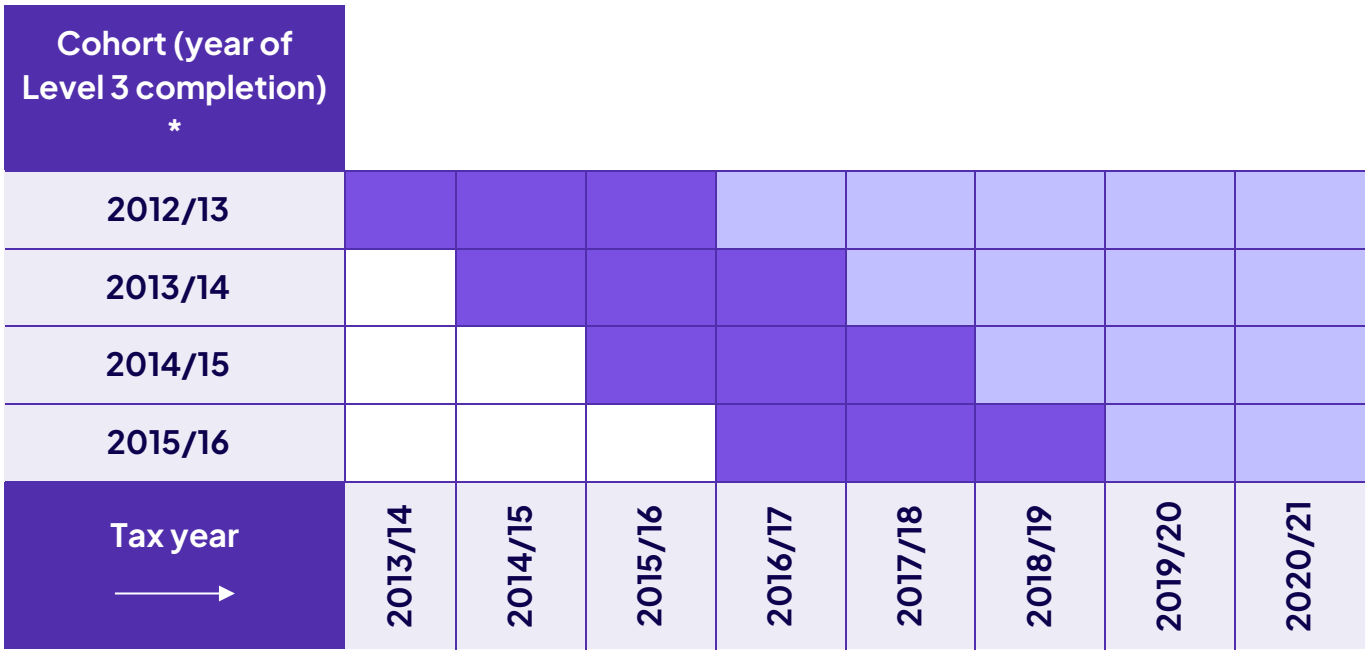
This research tracks the outcomes of **four cohorts** completing their Level 3 qualification(s) in academic years 2012/13 to 2015/16; these cohorts are approximately ten years on from those in the Patrignani et al. (2018) research, bringing their analysis up to date.

In order to allow time to gain sufficient traction in the labour market, we looked at learner earnings a minimum of one year after completing higher education for each cohort, if they attended university, with tax year 2020/21 the last one available at the time of this research.

Given that most learners following the HE route undertake a three-year course, this would typically give us up to five years of salary data for the 2012/13 cohort, or, for learners entering the labour market earlier, up to eight years. If learners have done more or less than a three-year HE programme or dropped out earlier, they are also reflected in the data once they reach the labour market.

Figure 1 indicates typical expected HE study years (dark colour) and expected labour market activity (light colour). Earnings of all learners are recorded from the first tax year after completion of their Level 3 or after HE for those who followed that route. For instance, for the cohort completing Level 3 in 2015/6, earnings are taken from tax year 2016/17 for learners who did not go to HE and from 2019/20 for those who did.

Figure 1: Cohorts studied



In this report we refer to each of the four cohorts as '2012/13', '2013/14' and so on, referring to the year of completion of their Level 3 qualification(s).

Median salaries

Salary figures for learners are measured by calculating median salaries across all years after Level 3 completion, or HE completion if applicable, in accordance with the outline in *Figure 1.*

We find the median salary for each learner from all annual salaries recorded when active in the labour market. For instance, learners in the 2014/15 cohort who graduated from HE in academic year 2017/18, will have median of total salaries for each of the three tax years 2018/19, 2019/20 and, 2020/21 computed. The mean is then found across all learners' medians in that cohort and/or subgroup.

It is useful to bear in mind when looking at salaries, that they appear lower than expected when averaged across several years and in comparison to current salary levels; for this reason, in some plots percentage differences are also shown alongside.

Learner counts

Our analysis uses matched learner data; the following tables indicate overall learner counts included in each findings section of this report.

Table 1: Learner counts for findings 1 – BTEC learners' salary outcomes relative to other Level 3 VTQs (LILR).

BTEC	Level 3 cohort	Learner count (rounded to nearest 5)
Yes	2012/13	41,910
No		40,205
Overall		82,115
Yes	2013/14	66,085
No		73,190
Overall		139,280
Yes	2014/15	71,150
No		81,240
Overall		152,390
Yes	2015/16	63,195
No		92,685
Overall		155,880

Table 2: Learner counts for findings 2 – BTEC learners' salary outcomes relative to A levels and mixed routes (combined NPD/LILR).

Route	Level 3 cohort	Learner count (rounded to nearest 5)
Mixed	2012/13	11,310
BTEC		58,220
A level		183,420
Overall		252,950
Mixed	2013/14	20,785
BTEC		90,200
A level		37,965
Overall		148,680
Mixed	2014/15	27,085
BTEC		93,165
A level		217,175
Overall		337,420
Mixed	2015/16	24,170
BTEC		95,340
A level		200,995
Overall		320, 500

Table 3: Learner counts for findings 3 – BTEC learners' salary outcomes in key sectors.

Level 3 cohort	BTEC sector	Learner count (rounded to nearest 5)
2012/13	Construction	440
	Engineering	1,605
	HSC	9,370
	ICT	3,070
	Other	27,430
2013/14	Construction	660
	Engineering	2,950
	HSC	14,230
	ICT	5,900
	Other	42,340
2014/15	Construction	585
	Engineering	3,140
	HSC	15,350
	ICT	6,600
	Other	45,480
2015/16	Construction	530
	Engineering	3,355
	HSC	13,650
	ICT	5,995
	Other	39,665

Data definitions

The following definitions have been used when interrogating the data. When applicable, more specific definitions are given in the relevant sections of this report.

Term	Definition
HE	Refers to whether a learner accessed higher education – recorded in HESA, with an end date prior to the latest available academic year of 2019/20.
Level 3 route	Refers to qualifications taken at Level 3, typically VTQs, BTECs, A levels and mixed (BTEC & A level) programmes. The cohort year relates to the latest academic year in which a student completed a Level 3 qualification.
Level 3 VTQ	Learners taking any full Level 3 Vocational Technical Qualification (including BTEC). Data used is taken from LILR as 'Full Level 3 VTQ' defined as equivalent in size to two or more A levels (or 720 GLH).
BTEC	Learners recorded on the Longtitudinal Individualised Learner Record (LILR) datasets to have achieved a BTEC qualification. For full Level 3 VTQ section (page 11), this includes BTEC Extended Diplomas only, but all BTEC sizes for the A level vs BTEC section (page 16).
A level	Learners who have been recorded on NPD datasets to have passed any A level (includes GCE, VCE, double award and AS levels) only, as a most recent qualification. The cohort year relates to the latest academic year in which a student completed a Level 3 qualification.
Mixed	Learners who have been recorded on LILR datasets to have taken a mix of A level and BTEC qualifications or recorded to have taken BTEC (LILR only) and A level (NPD only).
Free School Meals (FSM)	Learners qualifying for FSM in Year 11. Used as a binary indicator of economic disadvantage.
KS4 outcomes	Whether learners achieved 5 GCSEs at A*-C including mathematics and English, by the end of Key Stage 4 (a binary variable described as KS4 strong/weak).
Gender	Flagged on NPD/LILR records as male/female.
SEND	Learners flagged as having SEND in KS4 – Action Plus, Statemented or other 'school action' (coded as a binary variable – SEND Y/N).

Findings

The findings are broken down into three areas:

1. BTEC learners relative to other Level 3 VTQs
2. BTEC learners relative to A levels
3. BTEC learners relative to other Level 3 VTQs in key employment sectors.

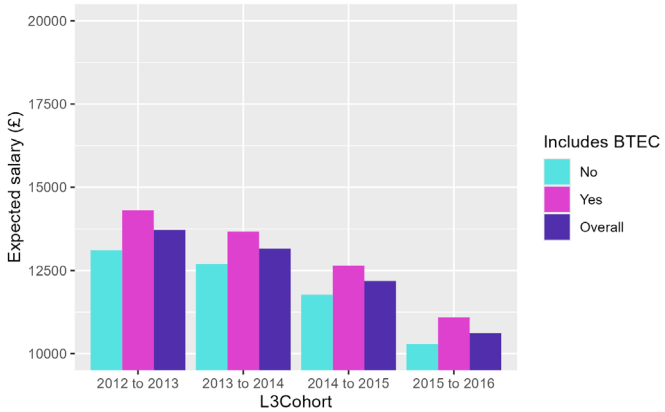
1. BTEC learners' salary outcomes relative to other Level 3 VTQ learners

In this section we look at how BTEC learners' salaries relate to those of other learners holding comparable Level 3 VTQs. This analysis looks at three subgroups of learners: those achieving a *full Level 3 VTQ* other than a BTEC, those who achieved a BTEC National Extended Diploma (equivalent to three A levels in size), and those accessing HE.

Median salary – Level 3 BTEC Extended Diploma vs all other Level 3 VTQs

For each Level 3 completion cohort, there is an uplift in salary for candidates who took BTEC Extended Diploma as a full Level 3 qualification, compared to other VTQs. Graph **1a** clearly shows this in each of our four cohorts. The table shows the difference in salary between BTECs and other VTQs, with BTEC salaries being between 7 and 9% higher across the four cohorts.

Graph 1a. Expected salary by Level 3 cohort: BTEC vs others.

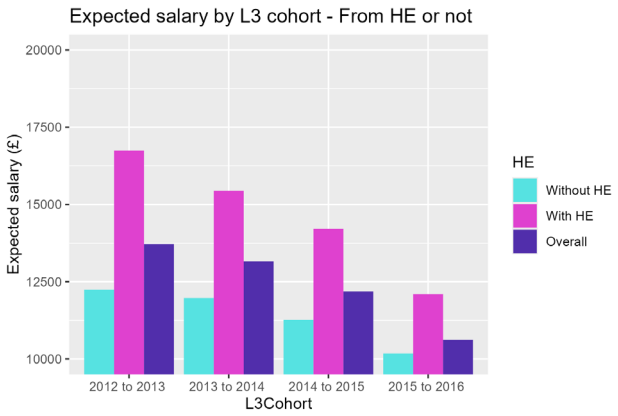


L3Cohort	Salary change (BTEC vs non-BTEC)
2012 to 2013	+9%
2013 to 2014	+8%
2014 to 2015	+7%
2015 to 2016	+8%

Median salary vs access to HE

For each cohort completing a Level 3 VTQ (including BTECs), there is a significant increase in salary for learners who accessed HE, compared to those who did not. This gap increases as learners mature in the labour market, rising to 37% for our most mature cohort.

Graph 1b. Expected salary by access to HE.



L3 cohort	Salary change (HE vs non-HE)
2012 to 2013	+37%
2013 to 2014	+29%
2014 to 2015	+26%
2015 to 2016	+19%

Interactions between learner characteristics and salary

In this section we investigate the relationships between salaries and learner characteristics (eligibility for FSM, KS4 outcomes and gender) for groups of learners going straight to work and to HE.

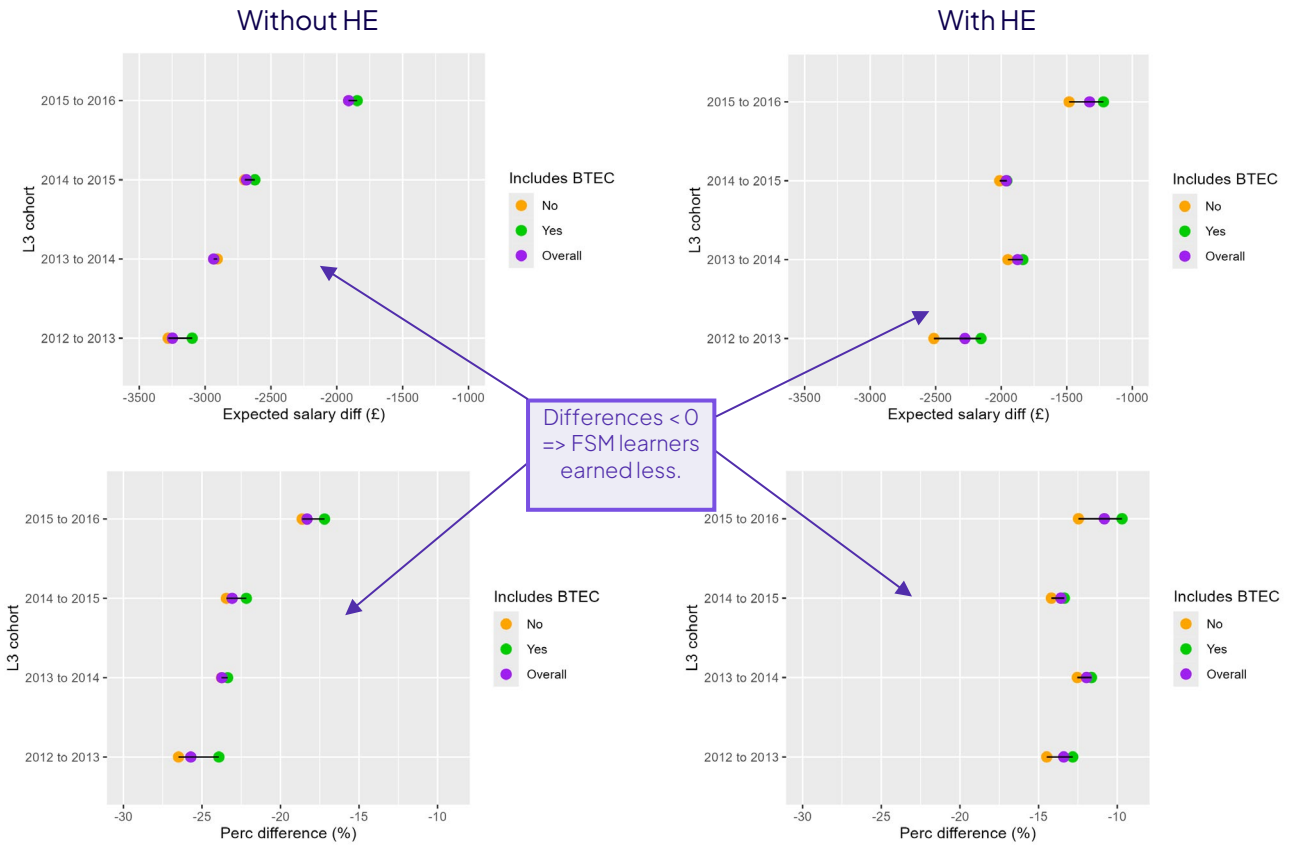
Free School Meals

In all cohorts and across both Level 3 pathways, learners eligible for FSM earn less than their more economically-advantaged peers (see detailed breakdown in Annexe, pages **17**, **20-22, 24**). Attending HE does mitigate this gap slightly and BTEC learners who received FSM tend to make better headway than other Level 3 VTQ learners.

Graph 1c below shows firstly the expected difference in salary (FSM vs non-FSM) in all four of our cohorts. BTEC learners eligible for FSM experience a smaller drop in salary than learners taking other Level 3 VTQs in most cases.

The lower two plots show the same as percentage decrease in salary for FSM learners, compared to non-FSM, for BTEC learners relative to other VTQs. For all cohorts, on both HE and non-HE routes, BTEC learners see a smaller percentage decrease.

Graph 1c. Expected salary differences and percentage differences between FSM and non-FSM learners for HE and non-HE routes. grouped by Level 3 route for each Level 3 cohort.

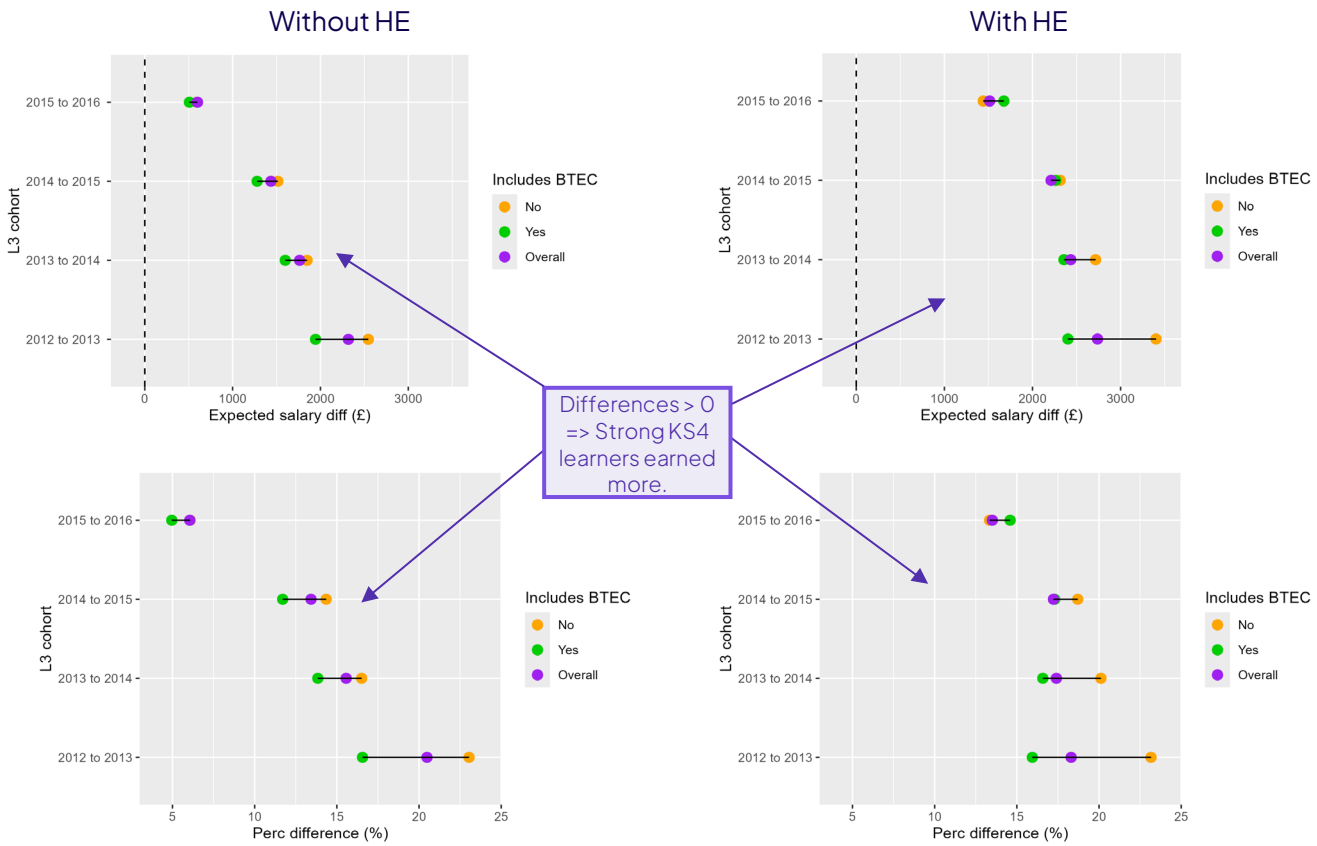


Key Stage 4 outcomes

Our analysis supports the notion that strong KS4 performance generally leads to better salary outcomes for learners, regardless of the Level 3 route they took (see detailed breakdown in Annex, pages **25-28**). Looking at expected differences in salary for learners with strong vs weak KS4 outcomes, Graph 1d below shows that BTEC learners with weak KS4 outcomes who do not go to HE, come consistently closer to the salaries of their peers with good GCSEs, compared to other Level 3 VTQ learners.

For learners following the HE route, outcomes are more mixed, but trend towards smaller salary differences for BTEC learners with weak KS4 outcomes as the cohorts mature in the labour market, compared to other Level 3 VTQ learners.

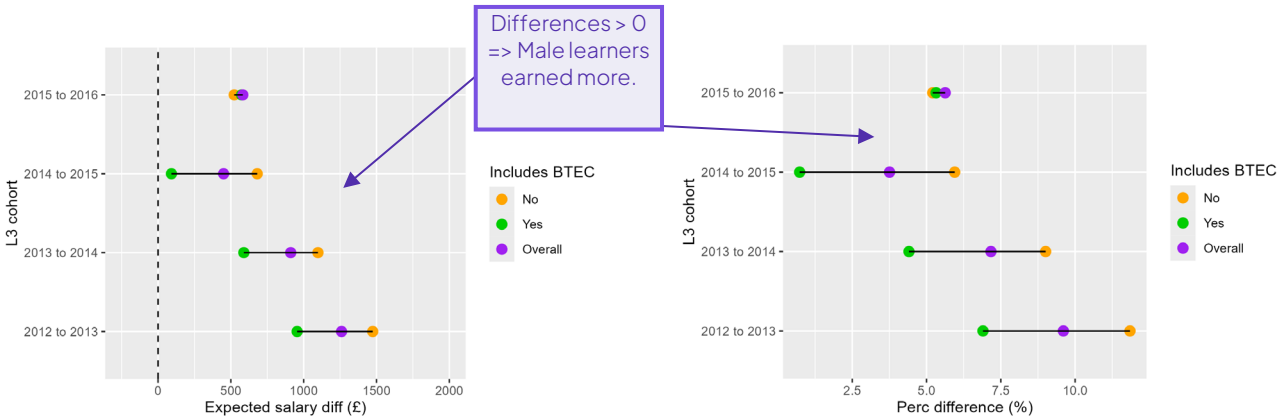
Graph 1d. Expected salary differences and percentage differences between strong and weak KS4 learners (good vs poor GCSEs) for HE and non-HE routes, grouped by Level 3 route for each Level 3 cohort.



Gender

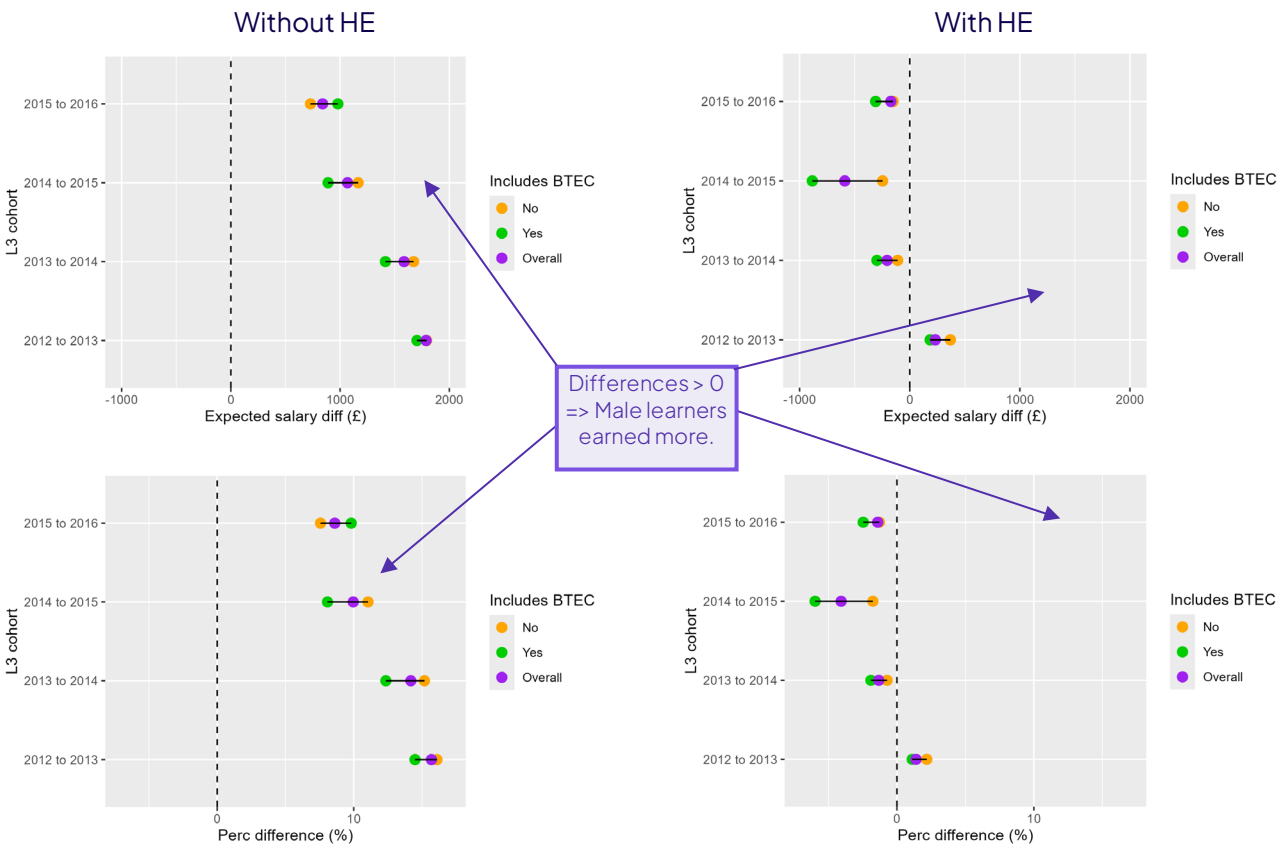
Reflecting trends in society as a whole, our research shows that male salaries are higher on average for all four cohorts (see detailed breakdown in Annexe pages **29-31**). Looking at expected salary differences between genders, Graph **1ei** below shows that female workers with a BTEC earn salaries closer to their male counterparts than those with other VTQs, with insignificant difference for male and female BTEC learners in the 2015/16 cohort (see Annexe Table **1eiii**).

Graph 1ei. Expected salary differences between male and female learners, grouped by Level 3 route for each Level 3 cohort.



Graph **1eii** below shows how the salary outlook improves for female learners with a BTEC when we look at those who follow the HE route. For three of the four cohorts female workers earn higher mean salaries than their male peers after accessing HE, and this is especially true for BTEC learners relative to other Level 3 VTQs. This is bucking a national trend for gender pay difference.

Graph 1eii. Expected salary differences between male and female learners for HE and non-HE routes, grouped by Level 3 route for each Level 3 cohort.

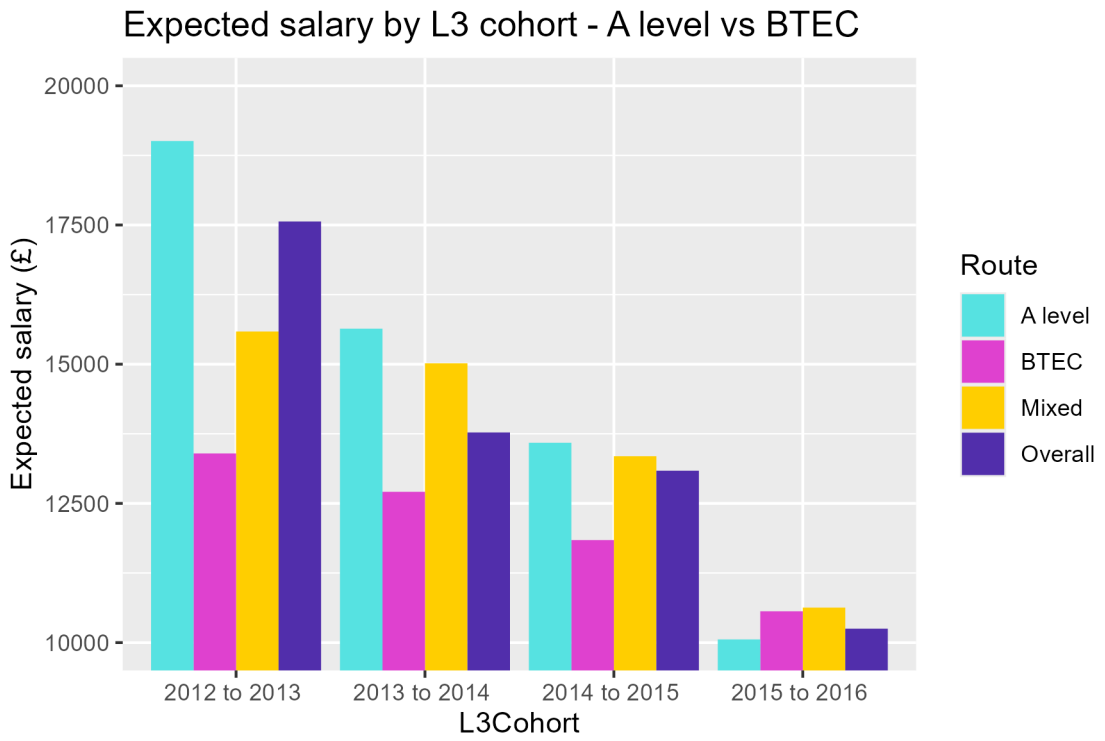


2. BTEC learners' salary outcomes relative to A level and mixed-route learners

In this section we combine data from the LILR (BTEC and mixed-route learners) with NPD (A level learners) to explore outcomes for three distinct Level 3 routes: *BTEC only, A level only, and mixed (BTEC and A level).*[2] Looking at the cohorts as a whole, across the three Level 3 routes, there is little difference in salary for learners as they enter the labour market. The longer the cohort has been in employment, the greater the salary benefit of A levels.

Comparing BTEC and A level salary outcomes including mixed routes

Graph 2a: Expected median salary by Level 3 cohort: candidates from A level, BTEC or mixed routes.

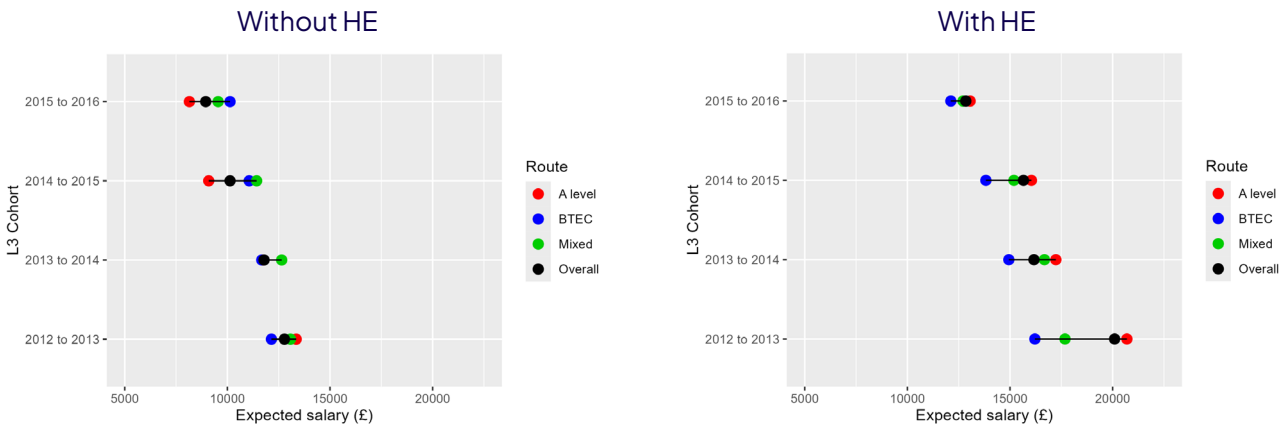


Median salary vs Level 3 route and access to HE

Looking at these three groups again below through the filter of the non-HE and HE route, we see that A level-only learners going to HE earned considerably more than average; in the group of learners not going to university, we see that BTEC-only learners outperformed A level learners in the more recent cohorts, with the salaries of A level and mixed-route learners only creeping higher as this group matures.

[2] *Restrictions with the data mean that in this section of the report, the analysis excludes records for other level 3 VTQs. If learners have done one of these qualifications in combination with an A Level or BTEC, they will be classed as A Level/BTEC only. Data tables and additional graphs to support these findings can be found in Data Annexe 2 on pages 24 - 31.*

Graph 2b: Expected salary by Level 3 cohort, grouped by HE and Level 3 route.

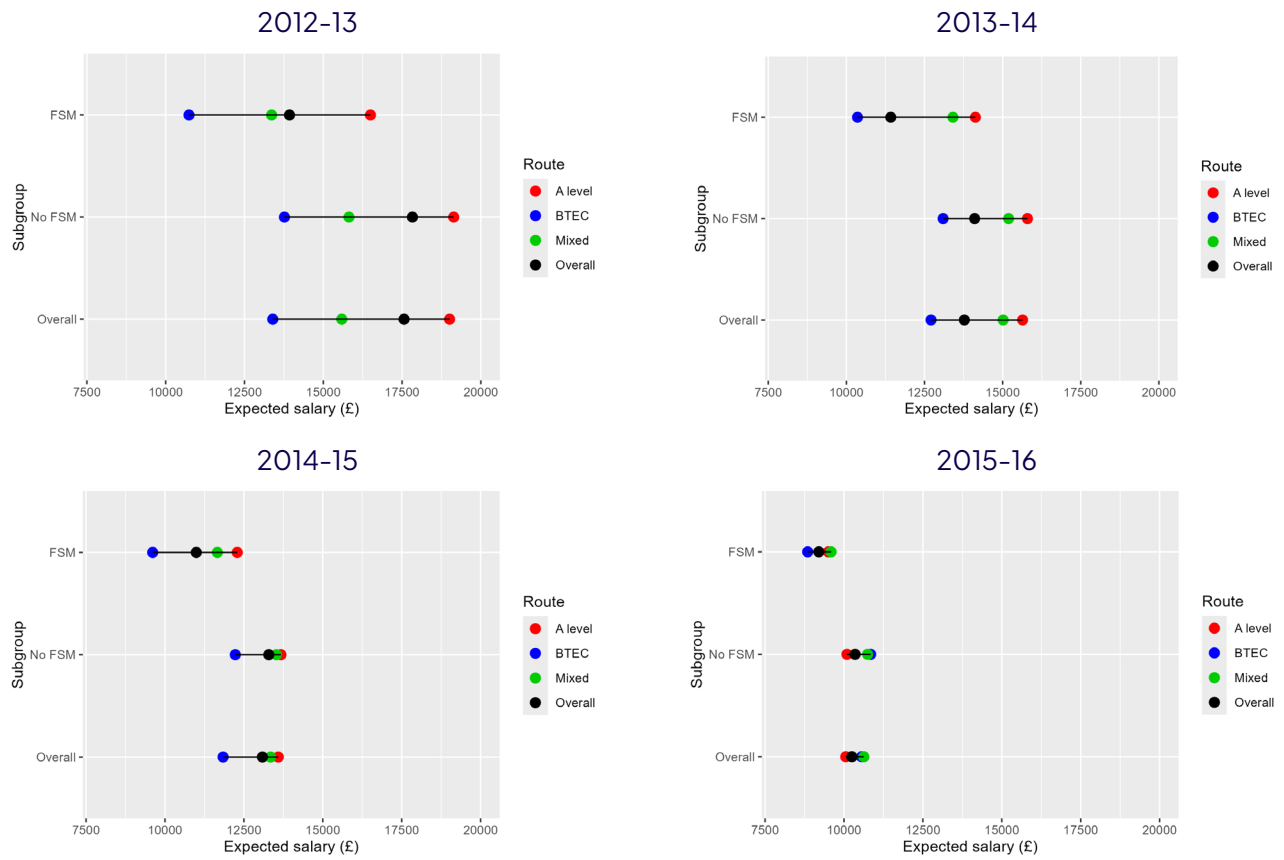


Interactions with learner characteristics

Free School Meals

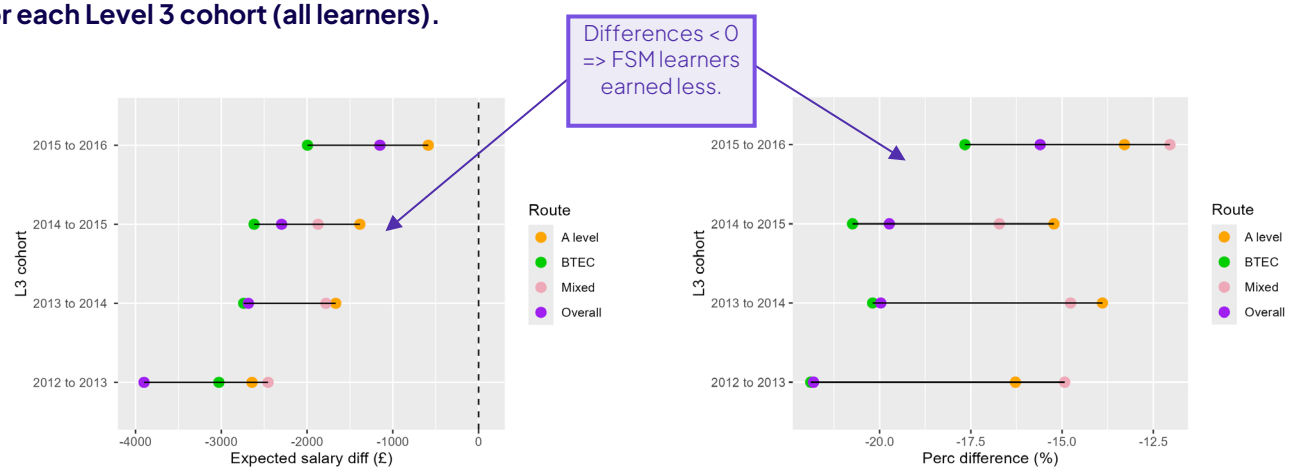
Using FSM eligibility as before, we compare outcomes for the three Level 3 routes (see detailed breakdown in Annexe, pages **34–35**). Graph **2ci** below shows clearly that in all cohorts, economically disadvantaged learners earn less and this gap grows over time.

Graph 2ci: Expected salary by Level 3 cohort, grouped by FSM and non-FSM learners for each Level 3 route (all learners).



Looking at the gap in salary between FSM and non-FSM students, we can see that A level learners tend to experience less of a salary drag compared to those on BTEC and mixed routes. Over time, however, we do see this gap grow for A level learners at a faster rate across our four cohorts, suggesting that, in the longer term, the protective factor of an A level route in mitigating economic disadvantage fades out. Given that we know A level salaries are higher overall, the plot on the right is probably more illustrative, showing the percentage difference between FSM and non-FSM student salaries for each route.

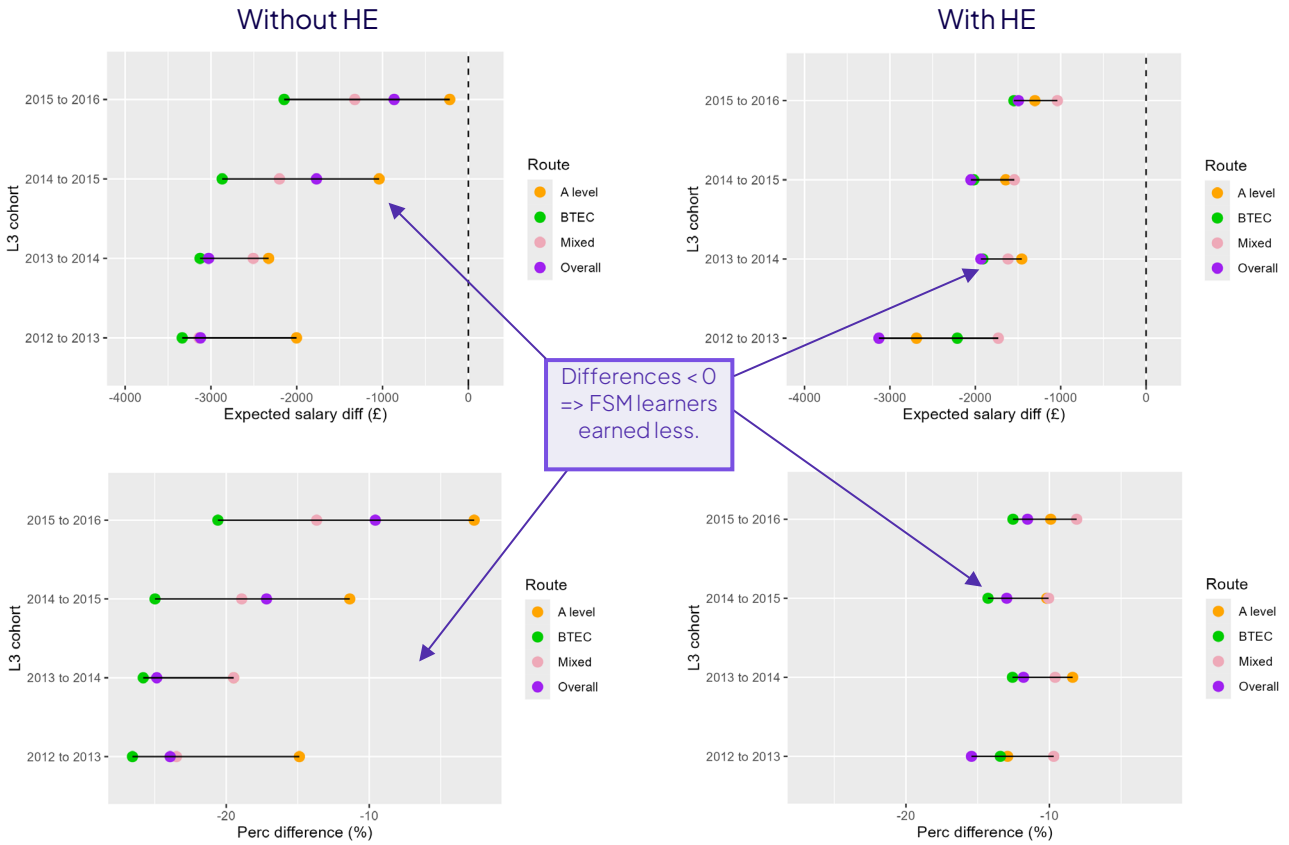
Graph 2cii: Expected salary differences between FSM and non-FSM learners, grouped by Level 3 route for each Level 3 cohort (all learners).



Impact of HE on economically disadvantaged learners

Graph **2ciii** below shows how much less FSM learners on each of the Level 3 routes can expect to earn compared to their more economically-advantaged peers; these gaps tend to narrow when accessing HE. The percentage difference on the lower two plots indicates that HE particularly benefits BTEC learners with FSM relative to others, in terms of salary differentials.

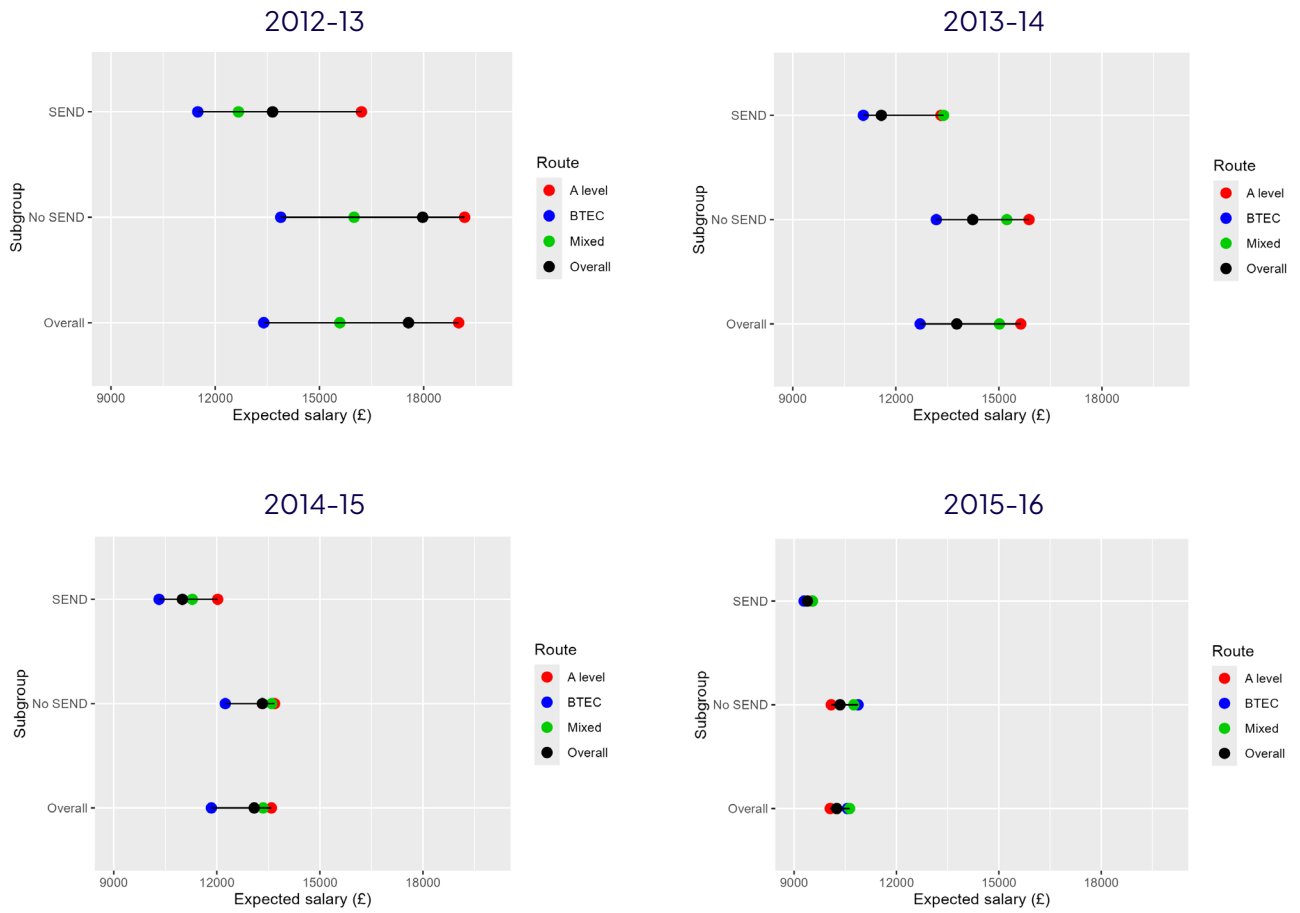
Graph 2ciii: Expected salary differences between FSM and non-FSM learners for HE and non-HE routes. grouped by Level 3 route for each Level 3 cohort.



Learners with SEND represent a broader typology than other learner characteristics studied in this research and therefore we tend to see fewer clear patterns in this interaction. This may be because, as learners self-select their courses of study at Level 3 and HE, they may be mitigating SEND impacts by choosing more suitable courses for their own learning needs.

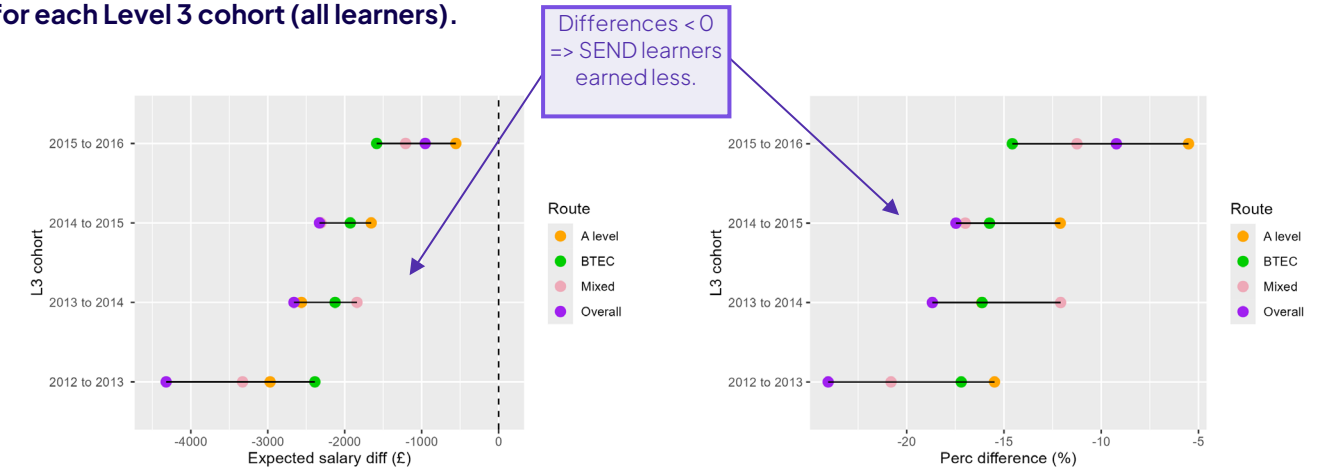
Looking at average salaries across our cohorts in Graph 2di below, the gap between students with and without SEND can be seen to increase over time (see detailed breakdown in Annexe, pages **36-37**).

Graph 2di: Expected salary by Level 3 cohort. Grouped by SEND and non-SEND learners for each Level 3 route (all learners).



Graph **2dii** below indicates a mixed picture across the three Level 3 routes in respect of the salary gap between learners with and without SEND across the four cohorts, with the two more mature cohorts showing higher salaries for learners with SEND who hold BTECs and mixed qualifications than their A level peers.

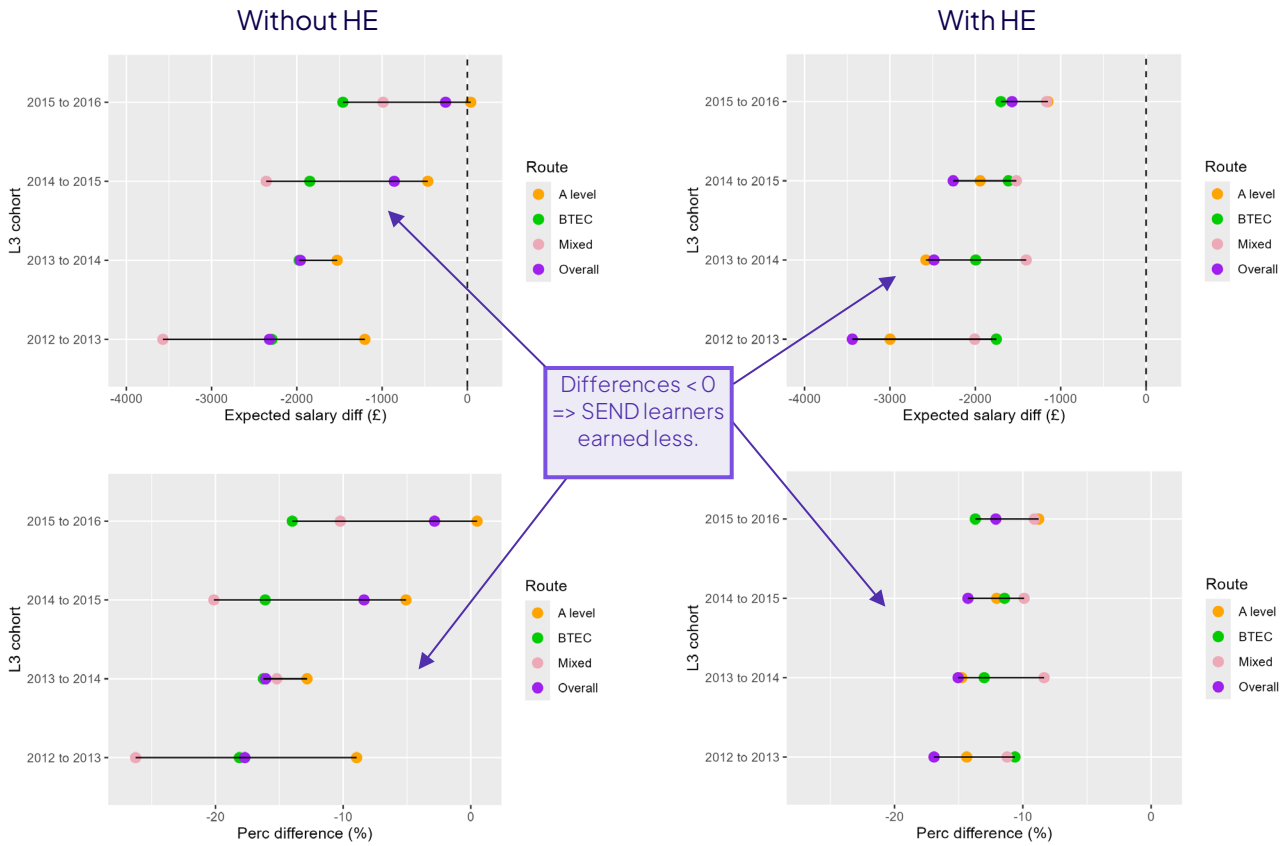
Graph 2dii: Expected salary differences between SEND and non-SEND learners, grouped by Level 3 route for each Level 3 cohort (all learners).



Impact of HE on learners with SEND

When looking at expected salary differences, we can see a clear positive association between taking BTEC and mixed routes relative to A levels when accessing HE. (Graph **2diii**).

Graph 2diii: Expected salary differences between SEND and non-SEND learners for HE and non-HE routes. grouped by Level 3 route for each Level 3 cohort.

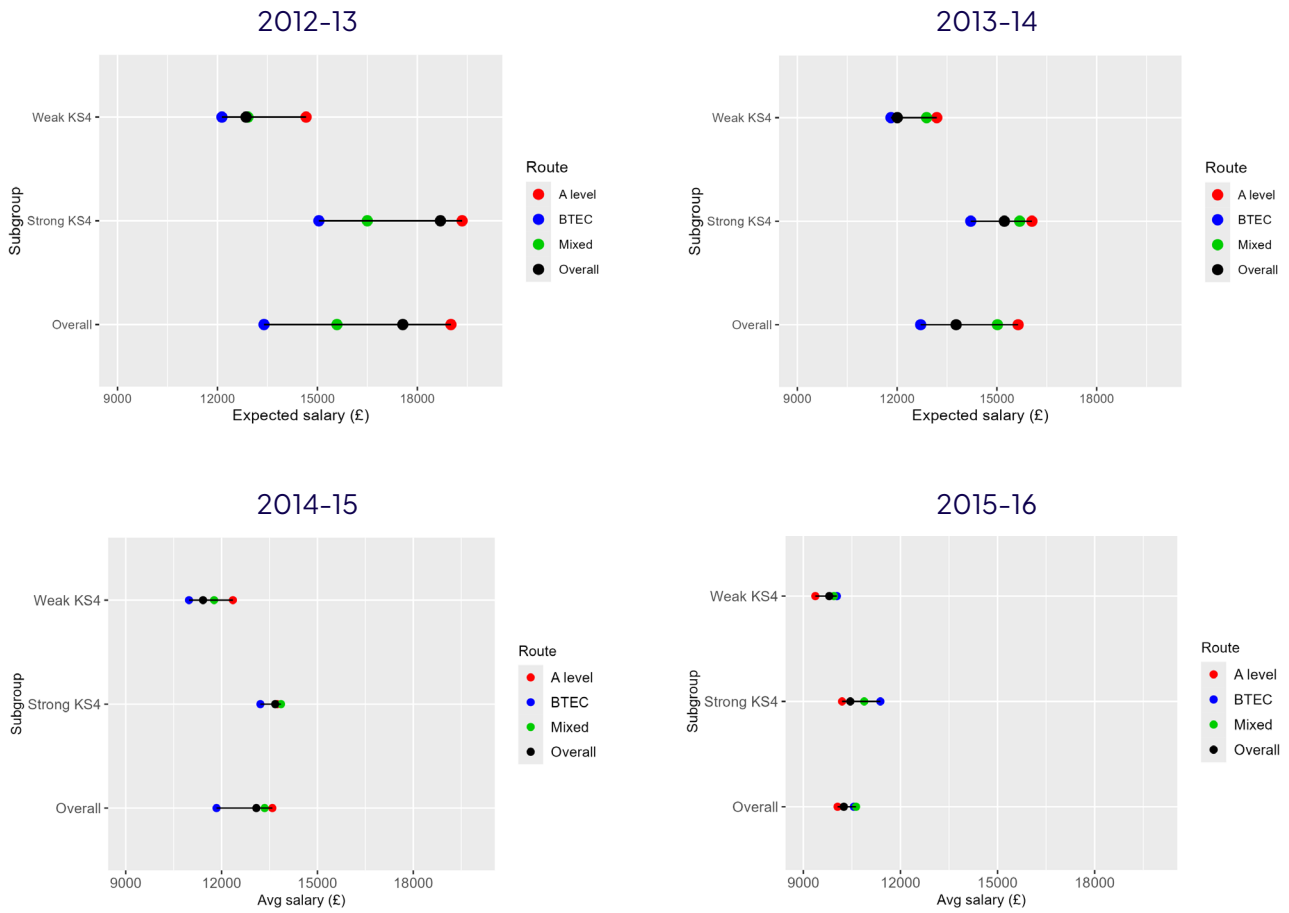


Key Stage 4 outcomes

The interactions between KS4 outcomes, Level 3 programme choice and salary are harder to disentangle, as entry requirements for A level programmes tend to be higher than for BTECs, and therefore learners with higher GCSE scores may be more likely to do A level programmes.

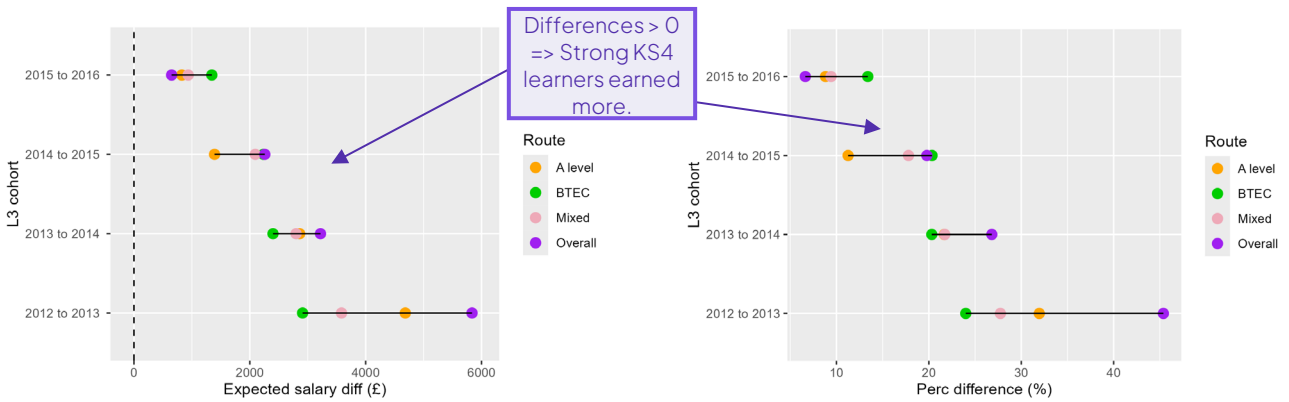
The increase in salary for learners with good GCSEs significantly widens as they spend longer in the labour market, although this gap is much smaller for BTEC-only learners compared to other A level and mixed routes (see detailed breakdown in Annexe, pages **38-39**). This could be explained by BTEC learners earning less overall.

Graph 2ei: Expected salary by Level 3 cohort, grouped by strong and weak KS4 (good or poor GCSEs) learners for each Level 3 route (all learners).



Graph **2eii** below indicates the expected salary differences between learners with strong and weak KS4 outcomes for each of the four cohorts and by Level 3 route. The lower plot shows, for the cohort that has been in the labour market longest, there is a salary gain for learners with good KS4 of around 10% more for A level learners compared to BTEC.

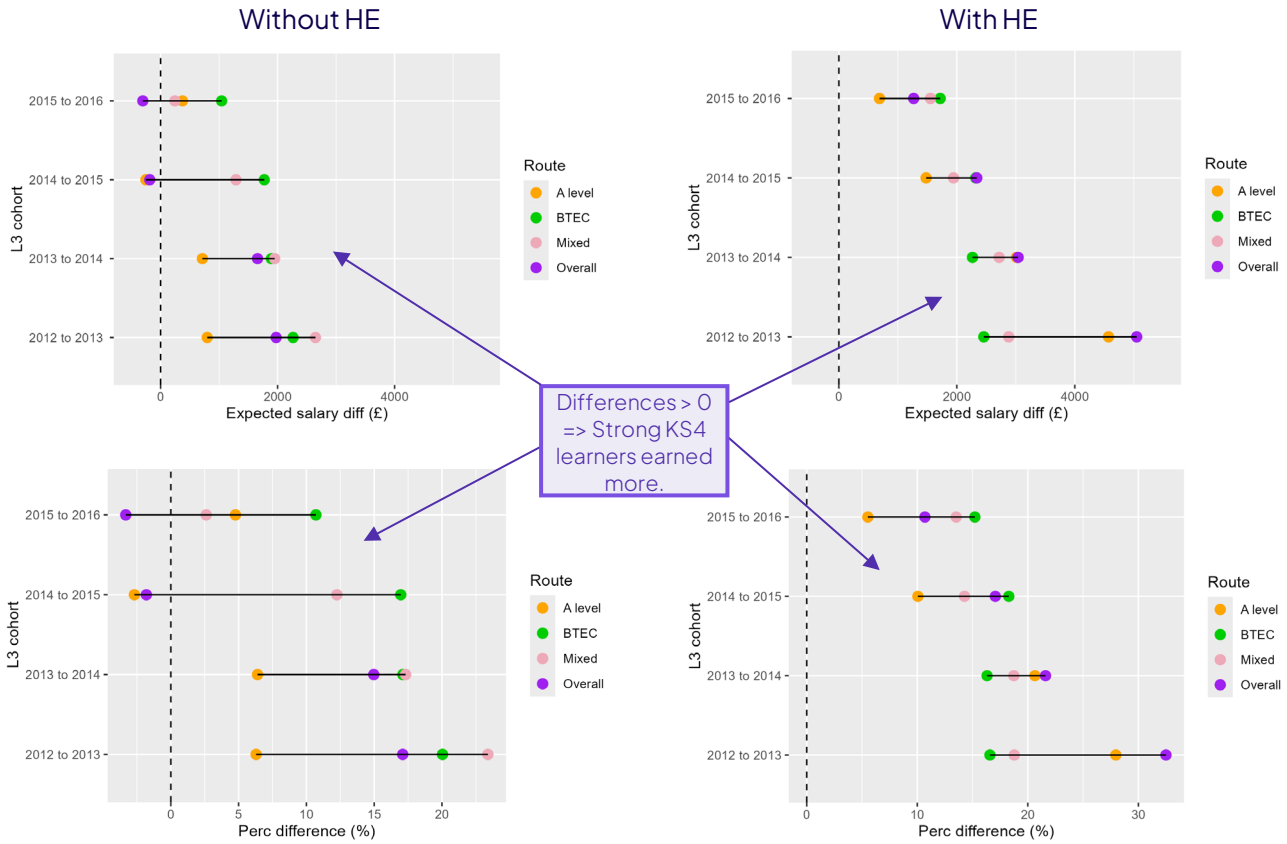
Graph 2eii: Expected salary differences between strong and weak KS4 (good vs poor GCSEs) learners. grouped by Level 3 route for each Level 3 cohort (all learners).



Impact of HE on learners with strong KS4 outcomes

Among learners not following the HE route, a strong KS4 performance appears to have more impact on salary for BTEC and mixed-route learners. After HE, the significance of KS4 is more mixed across the three Level 3 routes, but for BTEC learners the relationship to GCSE grades appears to diminish over time.

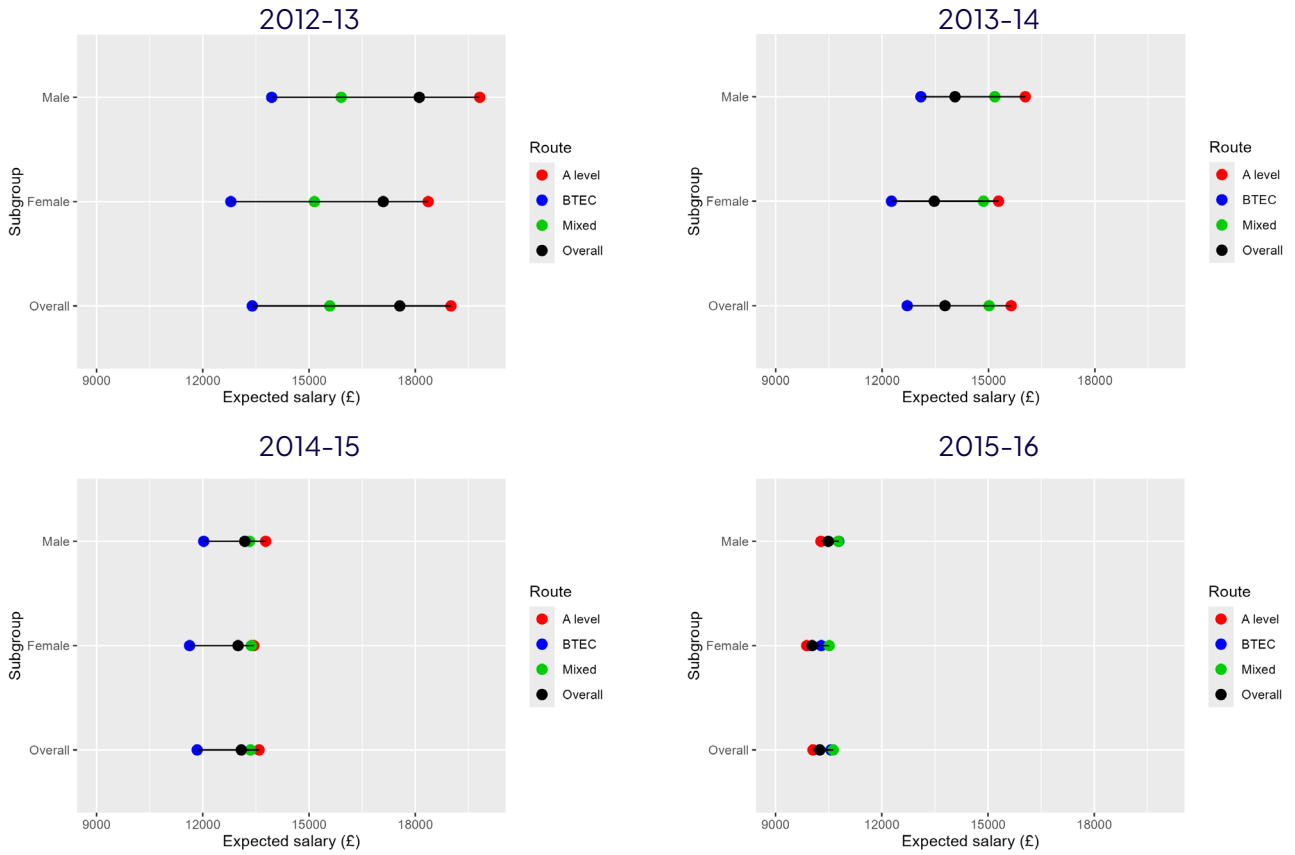
Graph 2eiii: Expected salary differences between strong and weak KS4 (good vs poor GCSEs) learners for HE and non-HE routes, grouped by Level 3 route for each Level 3 cohort.



Gender

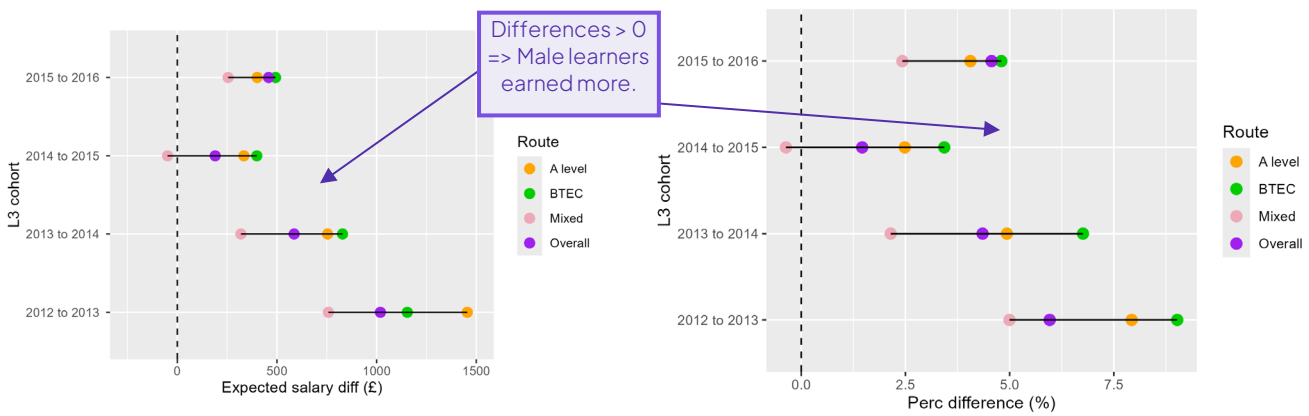
Across all Level 3 routes, males earn higher salaries in all cohorts (see detailed breakdown in Annexe, pages **40–41**).

Graph 2fi: Expected salary by Level 3 cohort, grouped by male and female learners for each Level 3 route.



Looking at expected salary differences, Graph **2fii** below indicates that mixed routes at Level 3 have the strongest association with a smaller gender salary gap across all cohorts. When looking at percentage differences, male workers taking BTECs see the biggest increases, when compared to female workers.

Graph 2fii: Expected salary differences between male and female learners, grouped by Level 3 route for each Level 3 cohort.

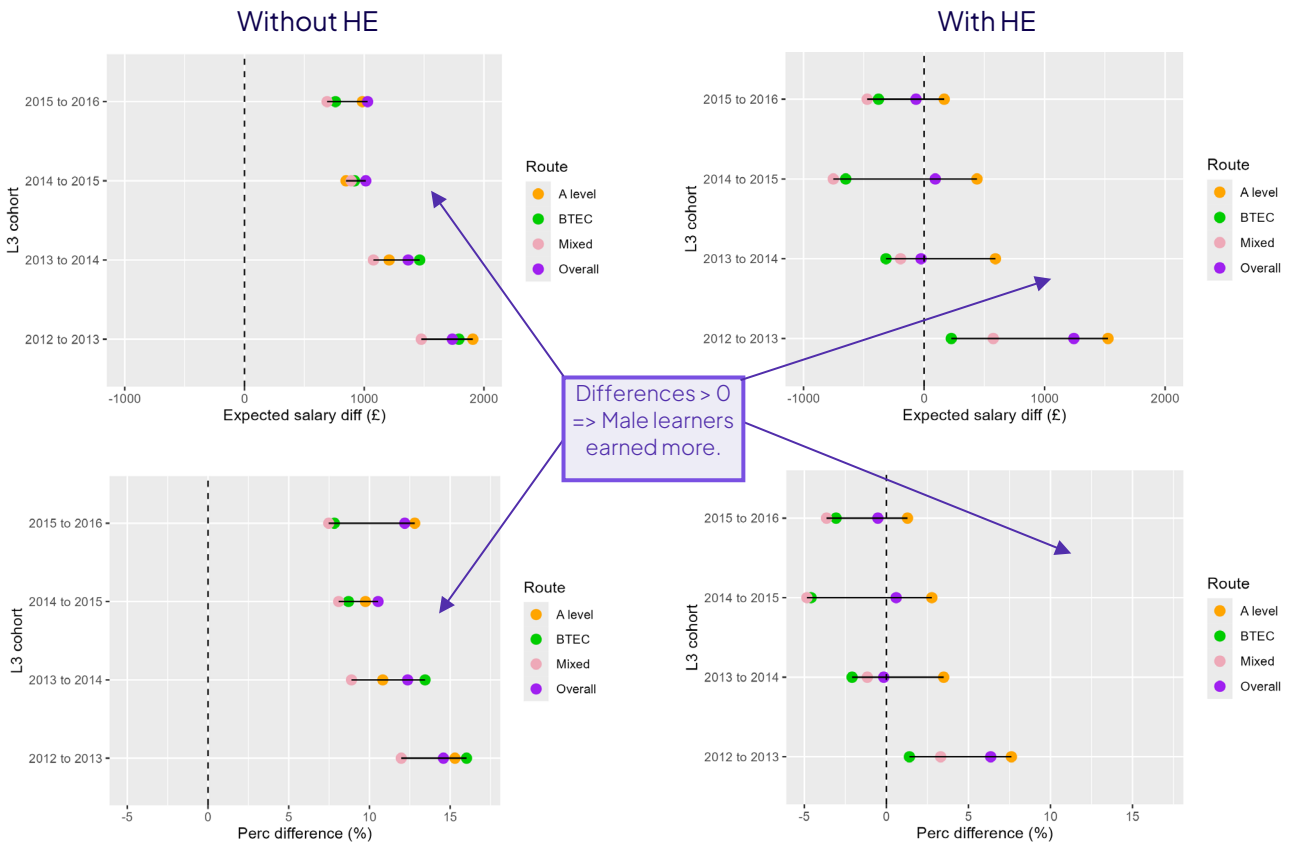


HE and gender interactions

Looking through the lens of HE routes gender differences are more apparent, with male learners consistently earning more in the non-HE group. Female learners close that gap in the HE group, and particularly female BTEC learners, who see a smaller gender salary gap than A level and mixed-programme peers and actually outperform male BTEC learners in the first years of employment (as seen in the earlier analysis of BTEC and other VTQ learners).

Below we can see the median salary difference for males and females for HE and non-HE routes. In the non-HE group, we can see that salaries are fairly close between the genders in all Level 3 routes. After HE, we see that females taking BTECs and mixed programmes outperform males in three of four cohorts, bucking national trends for gender salary difference.

Graph 2fiii: Expected salary differences between male and female learners for HE and non-HE routes, grouped by Level 3 route for each Level 3 cohort.



3. BTEC learners' salary outcomes in key sectors

To extend our analysis beyond returns to individuals and begin to answer a second research question around returns to society and the economy, "How do BTEC learners contribute to employment in key sectors?", we looked through the lens of both the **economic sector** in which learners gain employment and the **BTEC subject** they studied .

We explored BTEC learners' salary outcomes in four key sectors: construction and the built environment, digital, engineering, and health and social care. These sectors link to the government's ambitious Industrial Strategy,[3] focused on key growth areas for the UK economy. Health, digital and engineering are three of eight priority 'frontier' sectors (the IS-8) and construction is identified as one of the 'foundational' industries key to their success. The National Audit Office report *Supporting the UK's Priority Industry Sectors (2025)* highlights that a lack of skilled workers hinders growth across these sectors and creates a significant obstacle to achieving the government's vision. The Industrial Strategy finds significant skills shortages across our frontier and foundational industries. Only 9% of secondary vocational learners are studying in the in-demand sectors of engineering, manufacturing, and construction for example, compared to the OECD average of 32%.

By economic sector: BTEC vs other VTQs

Three sectors were selected for this part of the study: ICT (digital), construction, and health and social care, representing areas of key economic growth identified as priority sectors by Skills England in 2025[4]. A fourth, engineering, was also considered, but the SIC code data classification used by LEO does not easily allow identification of learners employed in that sector; they have been included in further analysis across all work sectors later in this chapter.

For this section, our analysis looked at all matched Level 3 VTQ learners. The graphs below show median earnings for each of the four cohorts in each of the three economic sectors.[5]

As expected, as learners mature into the labour market, we see growing salary differences between graduates and non-graduates; in the health and social care sector, HE graduates with a BTEC consistently earn more than their non-BTEC graduate peers. In the digital

3 See Industrial Strategy.

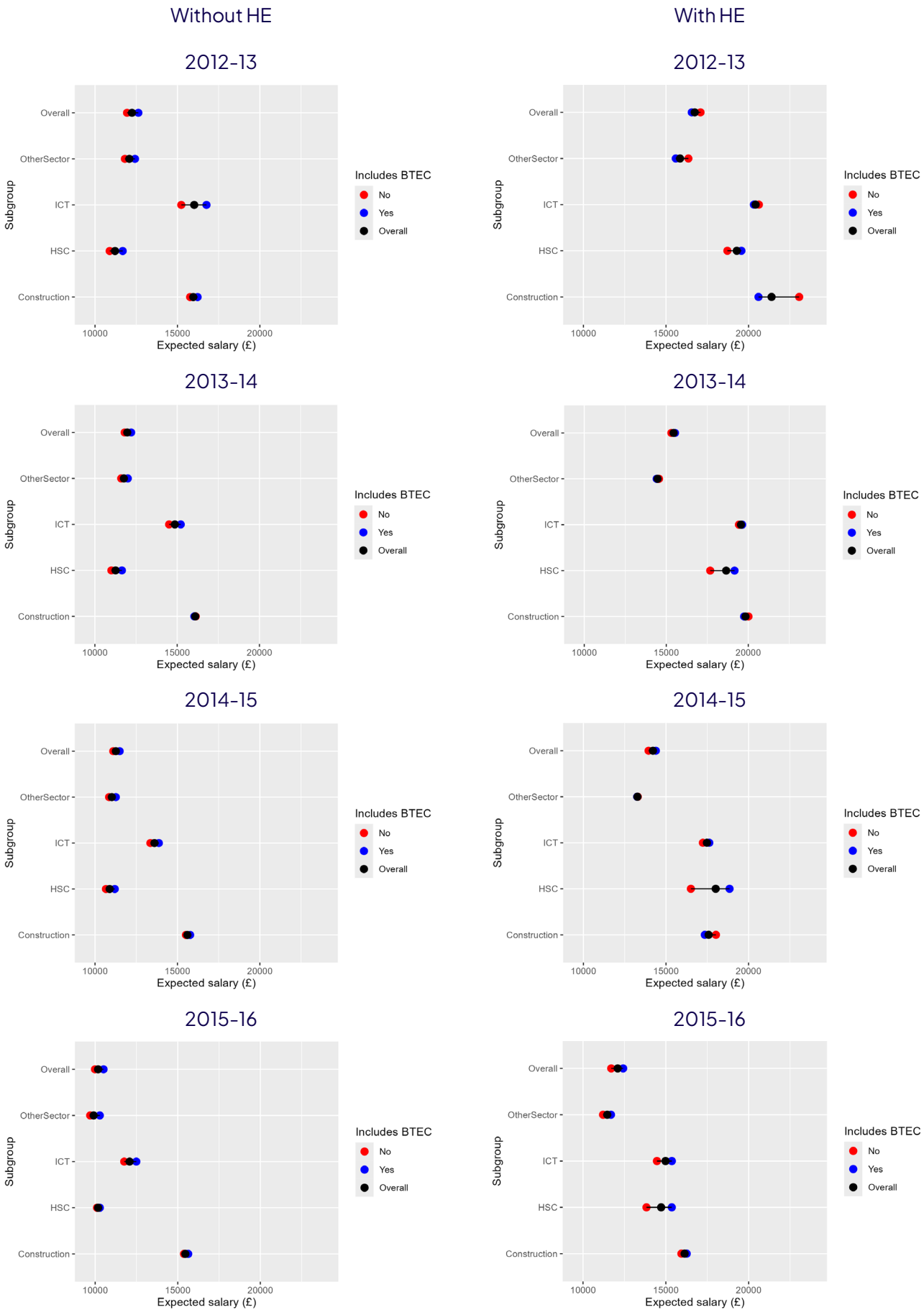
4 See https://assets.publishing.service.gov.uk/media/6863f18b3464d9c0ad609ddf/Skills_England_-_sector_evidence_on_the_growth_and_skills_offer.pdf

5 If learners were recorded across more than one sector, the one with the highest salary contribution was used.

sector, BTEC learners earn more in three of the four cohorts, while the reverse is true of the construction sector.

In all cases and all four cohorts, learners taking up employment in these sectors immediately after completing their BTEC (those without HE), earn more than their peers with other VTQs (see detailed breakdown in Annexe, pages **42–43**).

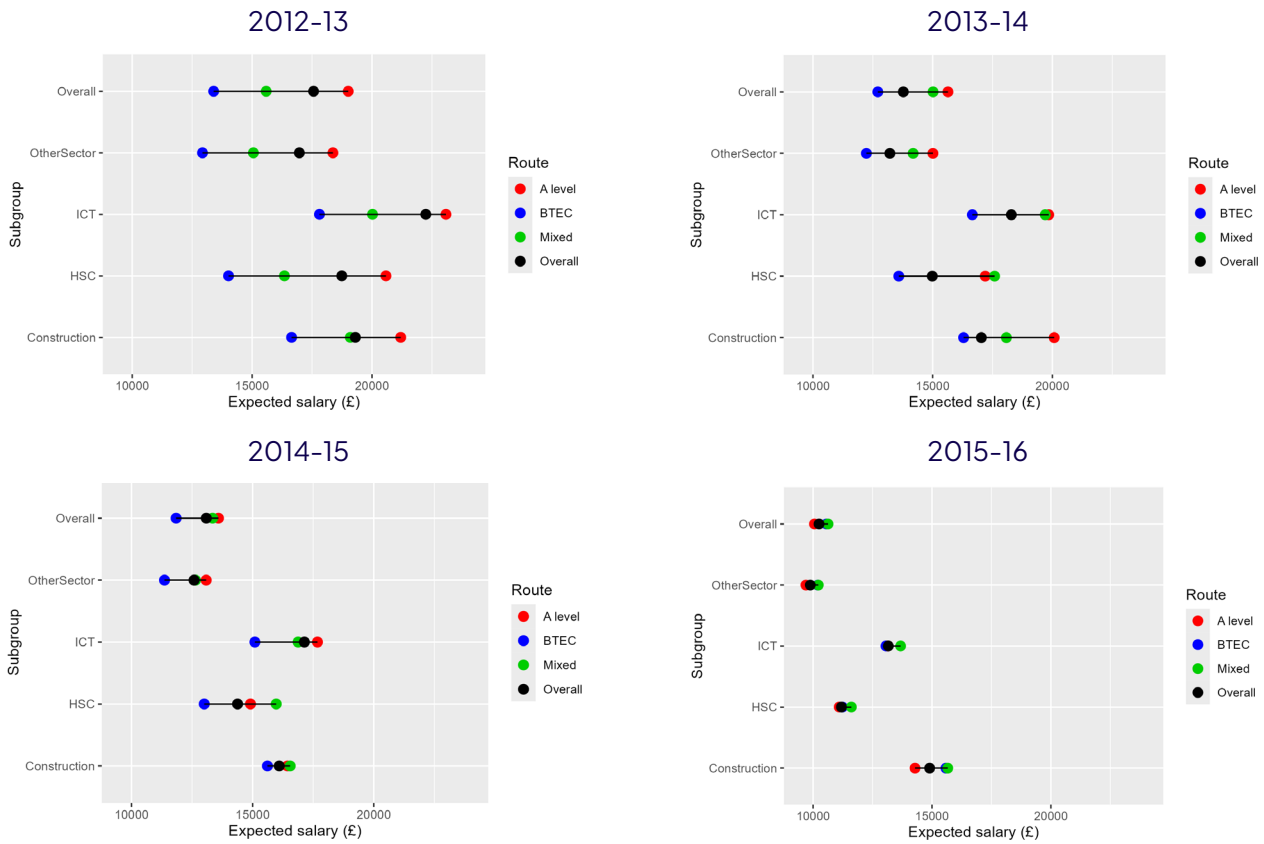
Graph 3a: Expected salary by Level 3 cohort, grouped by main employment sector for each Level 3 and HE route.



Economic sector by Level 3 route: BTEC, A level and mixed routes

Looking at our three routes through Level 3 across these economic sectors (using NPD and LILR data combined, as per the previous chapter), the size of the earnings gap between A level and BTEC routes consistently grows as workers mature, with A level-only learners earning the most and BTEC-only less. This analysis is broadly in line with assumptions about higher salary expectations for A level learners and suggests little evidence of any sector-level differences between the three we have looked at (see detailed breakdown in Annexe, pages **44**).

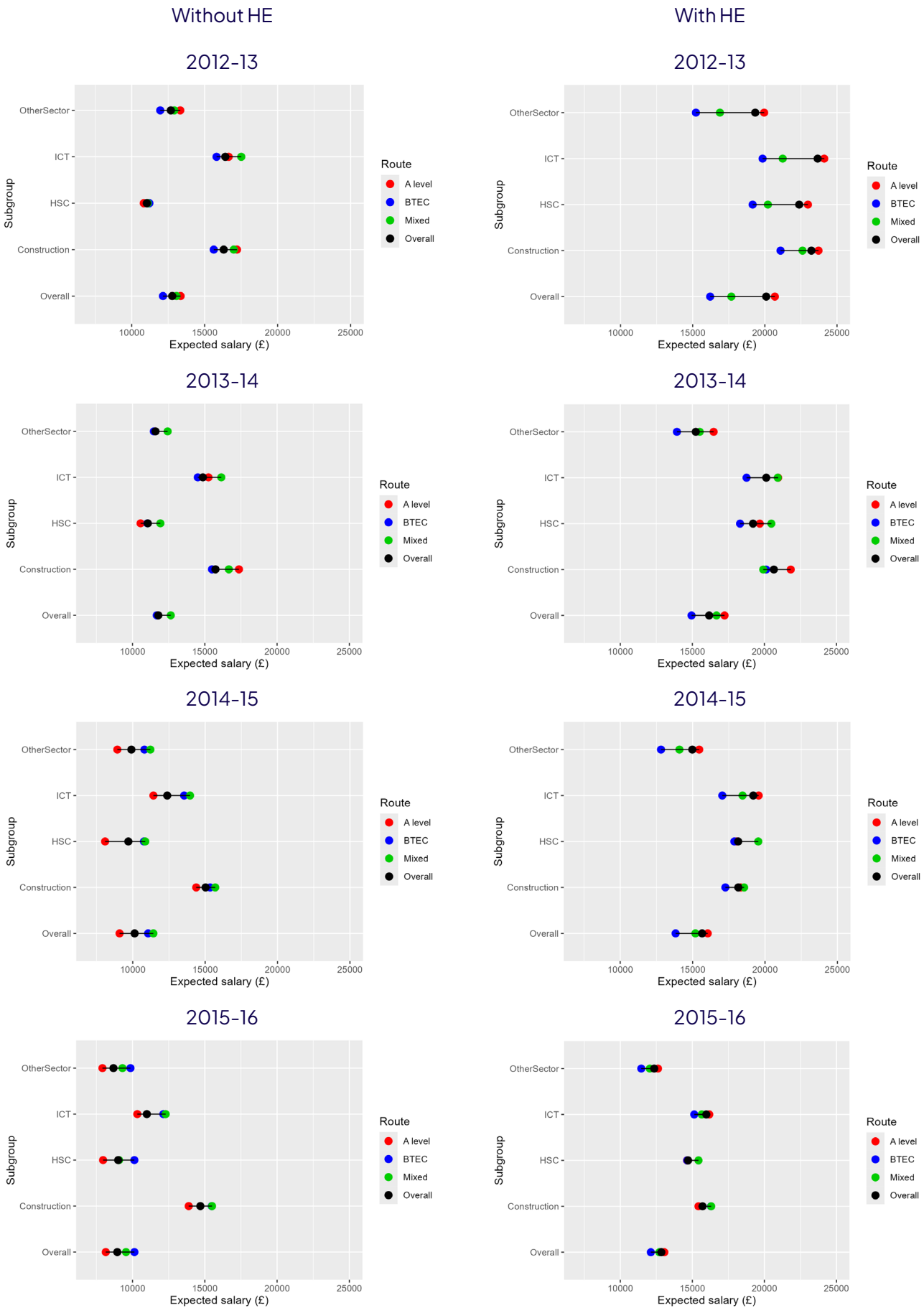
Graph 3bi: Expected salary by Level 3 cohort, grouped by main employment sector for each Level 3 route.



Differences for HE and non-HE routes

Separating out learners in the HE route, the gap in salaries across the Level 3 routes is again as expected: stronger salary performance for A levels across the three sectors and over time. However, for learners who do not access HE, the picture is more mixed, with A levels showing less dominance as a driver for higher salaries (see detailed breakdown in Annexe, pages **45**).

Graph 3bii: Expected salary by Level 3 cohort for HE and non-HE routes, grouped by main employment sector for each Level 3 route.

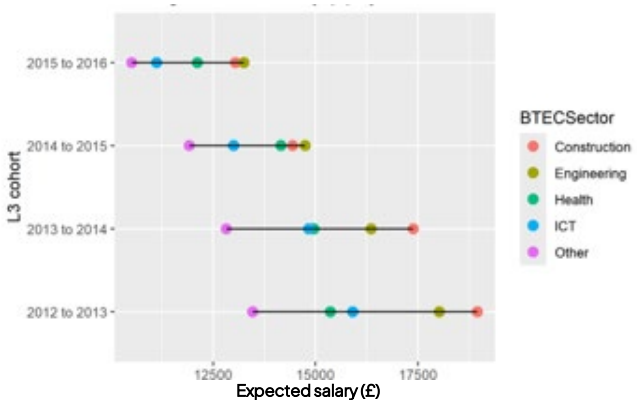


By BTEC subject studied

In this section we use the term BTEC *subject* to describe the BTEC course the learner studied, rather than the *sector* they are employed in. By considering the BTEC subject taken (and not necessarily followed through into HE or employment), we see slightly different salary outcomes and some interesting intersections with learner characteristics.

Graph **3ci** below shows median salary in four major BTEC subject areas, adding engineering to the three previously explored. Salary outcomes for BTEC learners in these key subjects are higher than for the average of every other BTEC subject (see detailed breakdown in Annexe, page **46**).

Graph 3ci: Expected salary by Level 3 cohort, grouped by BTEC subject.

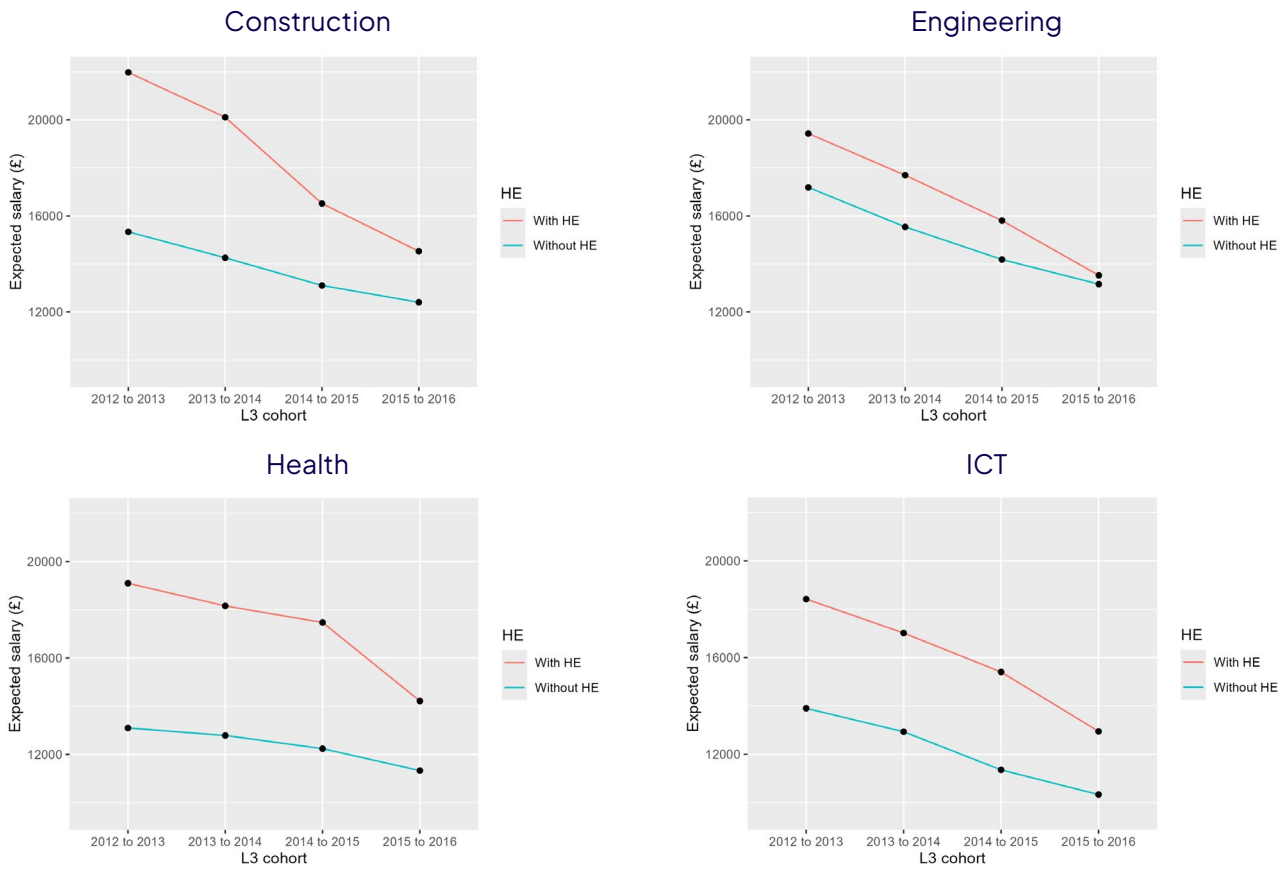


There are some interesting findings when we look at relationships between BTEC subjects and learner characteristics.

HE vs non-HE

As expected, for each BTEC subject salaries are significantly higher for those who also accessed HE. Graph **3cii** below shows there is a clear trajectory for all four BTEC subjects as these cohorts mature, with older cohorts experiencing a larger HE premium; however, the size of this premium and the rate of increase differ by subject (see detailed breakdown in Annexe, page **47**).

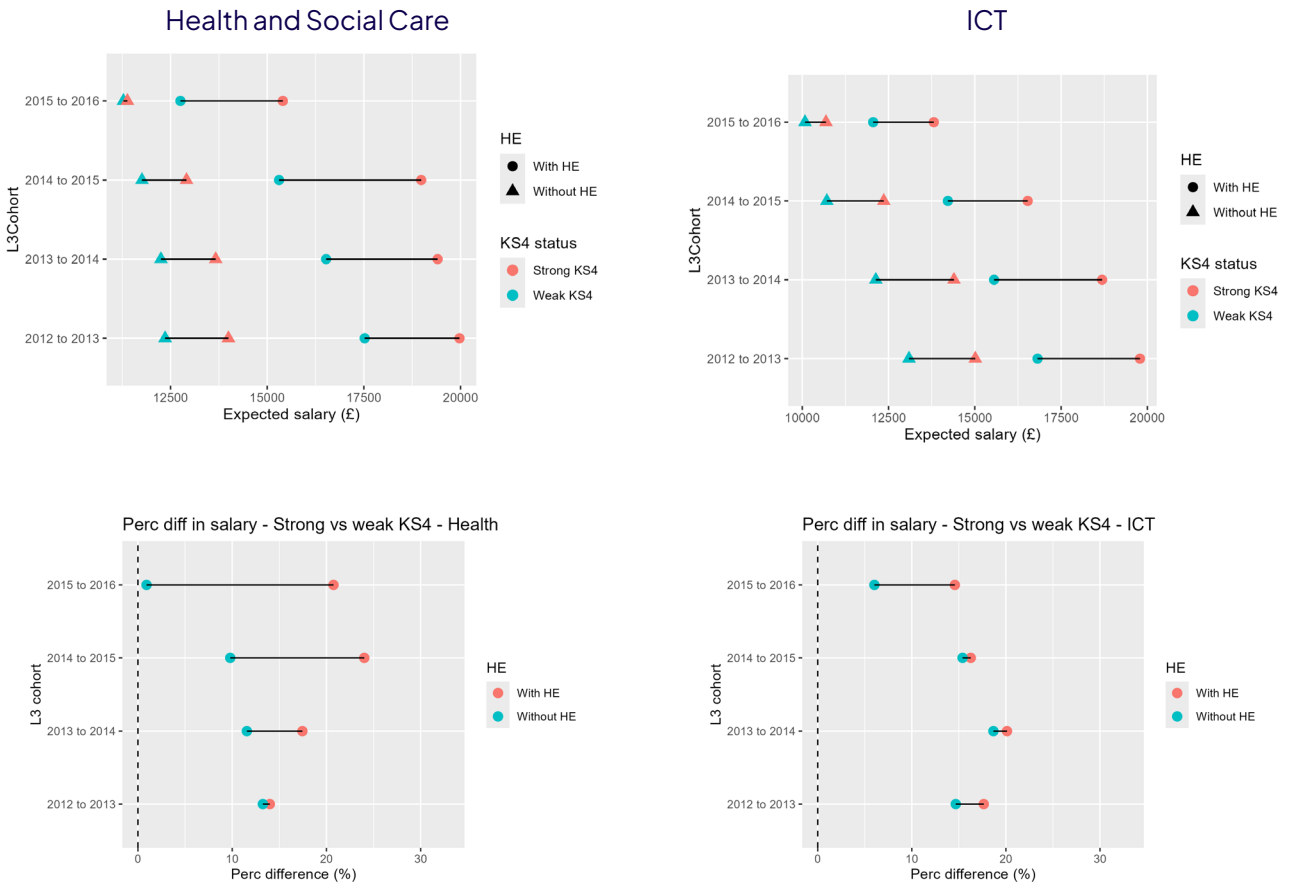
Graph 3cii: Expected salary by Level 3 cohort for each key BTEC subject, grouped by HE and non-HE route.



KS4 outcomes

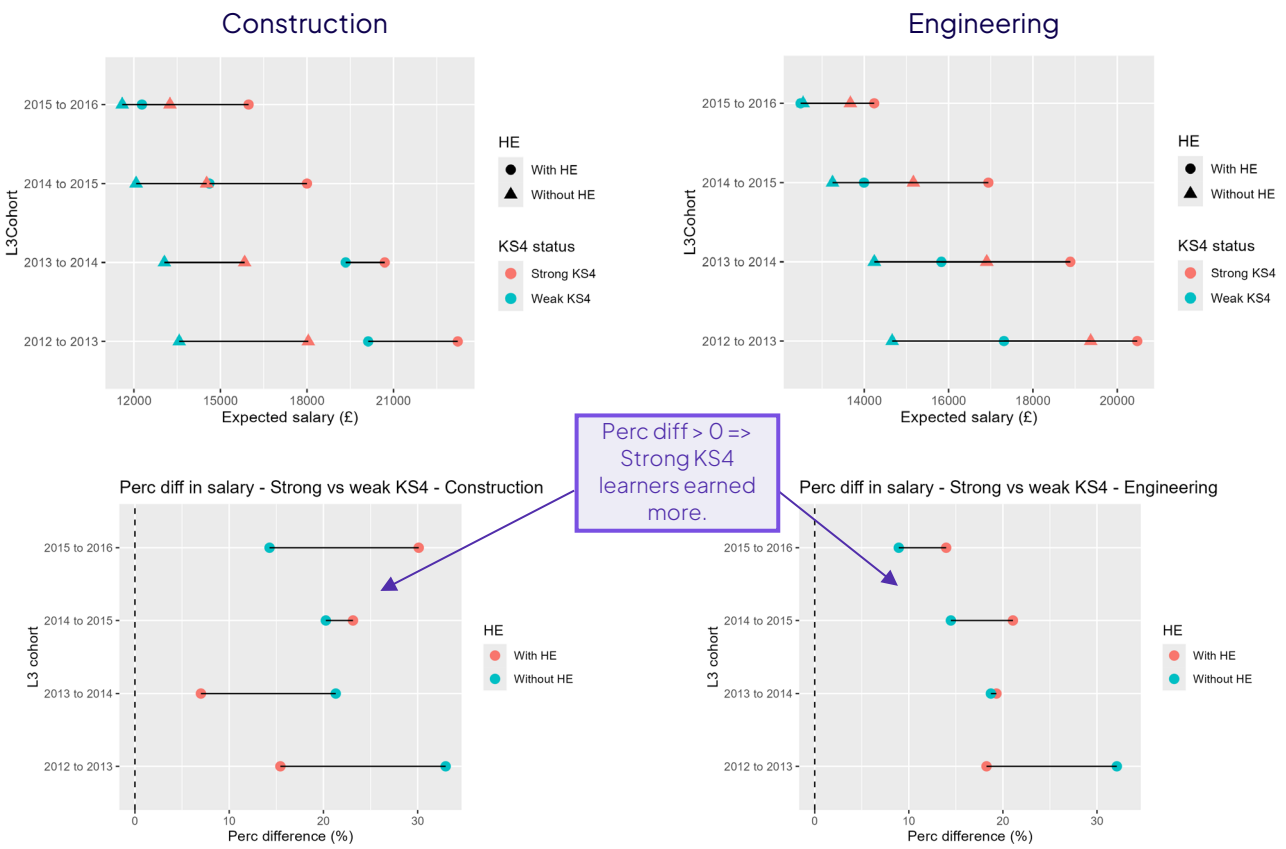
In addition to the HE salary boost, analysis was done to see if there was a significant impact of strong KS4 performance in any BTEC subject. There is some variance by subject, with HSC and ICT learners showing the most consistent evidence of the impact of HE on salary between strong and weak KS4 across the four cohorts (see detailed breakdown in Annexe, page **48**).

Graph 3di: Expected salary by Level 3 cohort for BTEC subjects Health & Social Care and ICT, grouped by KS4 attainment along with HE and non-HE routes, plus percentage change in salary (strong vs weak KS4).



Conversely, salary increases from accessing HE are lower for strong KS4 attainers as they mature for BTEC Construction and Engineering learners.

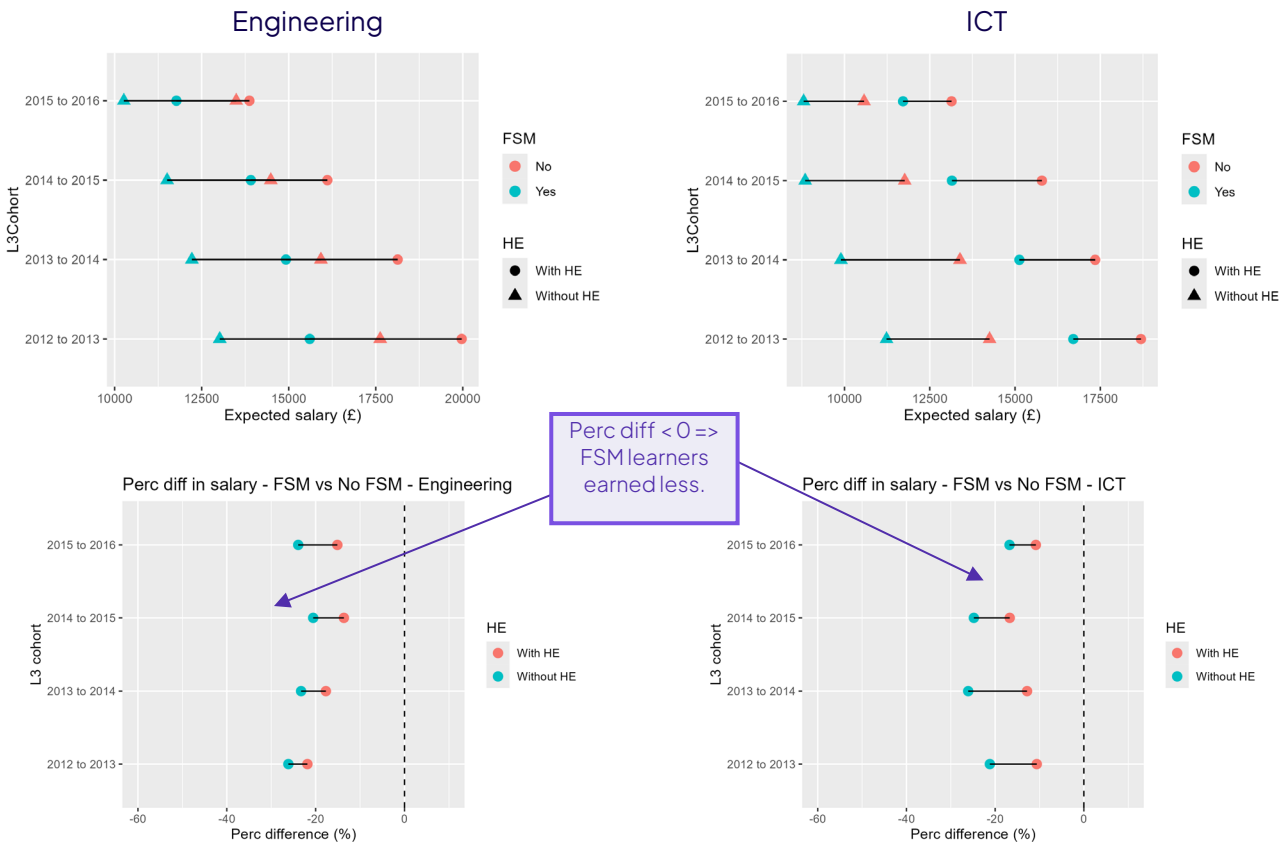
Graph 3dii: Expected salary by Level 3 cohort for BTEC subjects Construction and Engineering. Grouped by KS4 attainment along with HE and non-HE route. Plus percentage change in salary (Strong vs weak KS4).



Free School Meals

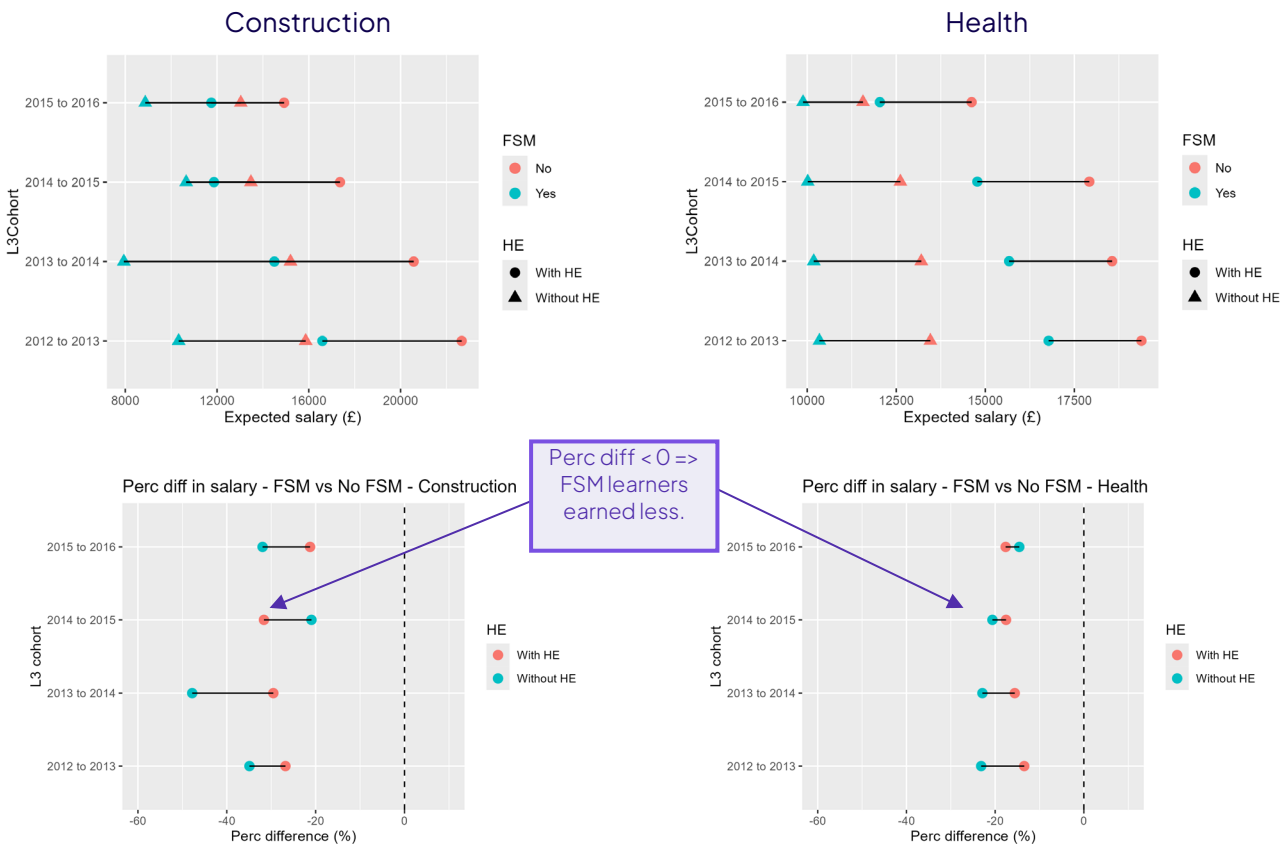
This varies by BTEC subject, but salary increases from accessing HE are consistently higher for FSM learners than non-FSM learners for BTEC ICT and Engineering. Graph **3ei** below shows that, in these two BTEC subjects, economically disadvantaged learners gain a consistently higher salary boost from HE than their better-off peers (see detailed breakdown in Annexe, page **49**).

Graph 3ei: Expected salary by Level 3 cohort for BTEC subjects Engineering and ICT. Grouped by FSM eligibility along with HE and non-HE route.



This story is less consistent across the four cohorts in Health and Social Care and Construction, as seen in Graph **3eii** below.

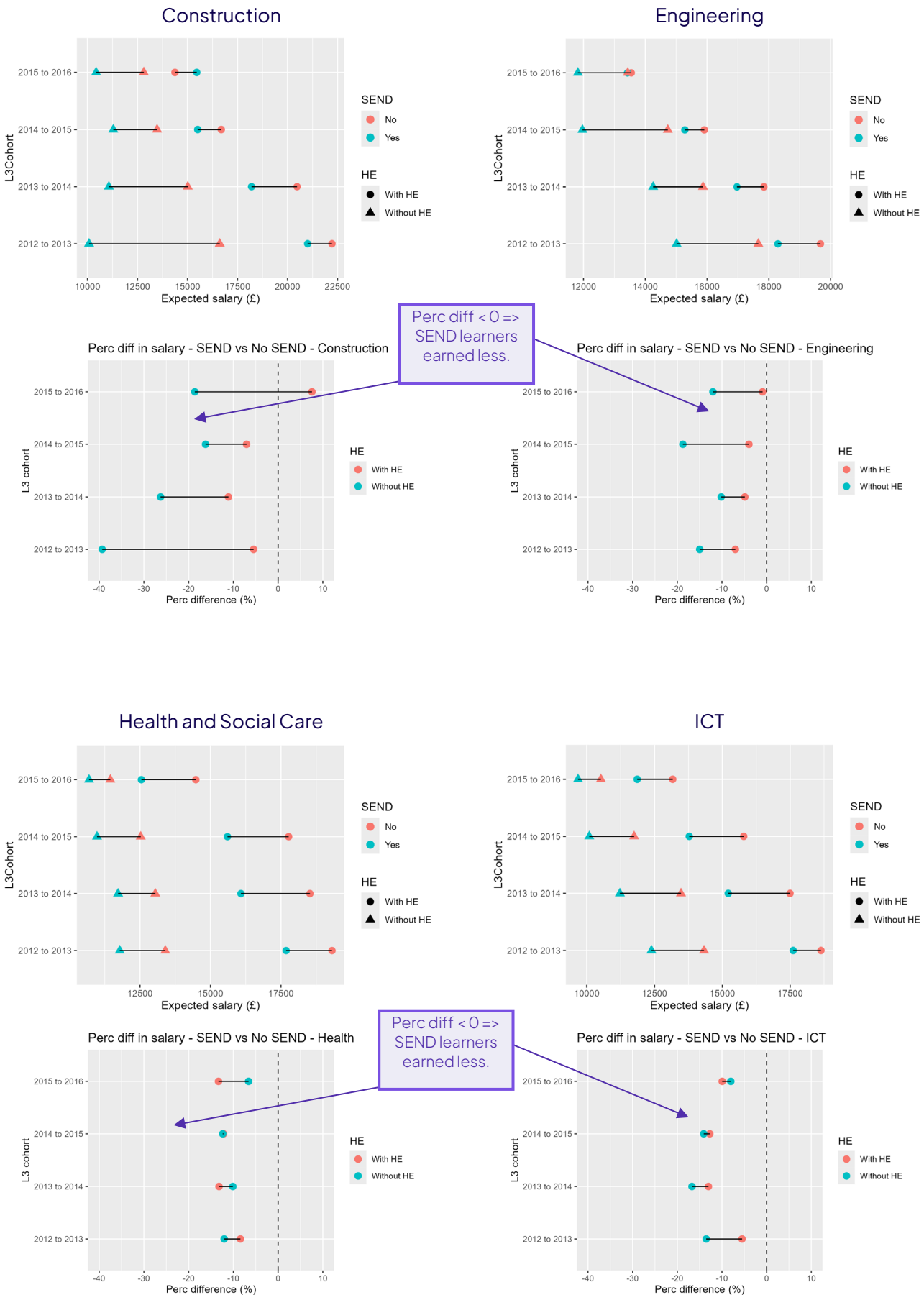
Graph 3eii: Expected salary by Level 3 cohort for BTEC subjects Construction and Health & Social Care. Grouped by FSM eligibility along with HE and non-HE route.



SEND

If we now apply the indicator of whether learners were entitled to SEND support in Year 11, we observe consistently higher salary increases in for SEND learners who access HE after previously studying BTECs in Construction and Engineering. This story is less consistent across the four cohorts in Health and Social Care and ICT, as seen in the graphs on the following page, although we observe for ICT that the uplift in salary from going to HE is more evident as they mature (see detailed breakdown in Annexe, page **50**).

Graph 3f: Expected salary by Level 3 cohort for key BTEC subjects, grouped by SEND status along with HE and non-HE routes.

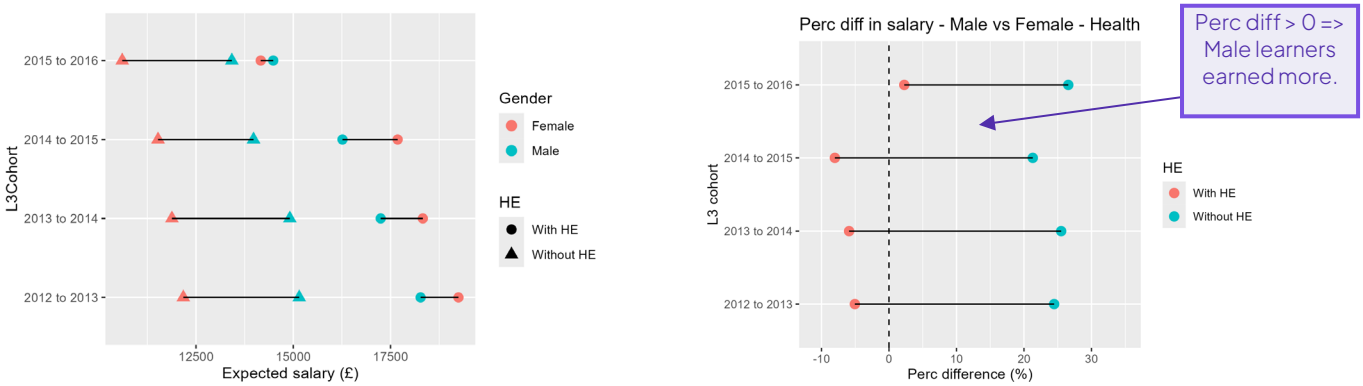


Gender

We looked at interactions with gender for learners accessing HE in each of the four BTEC subjects. As learners mature in the labour market, salary increases are higher for female BTEC learners who access HE (see detailed breakdown in Annexe, page **51**).

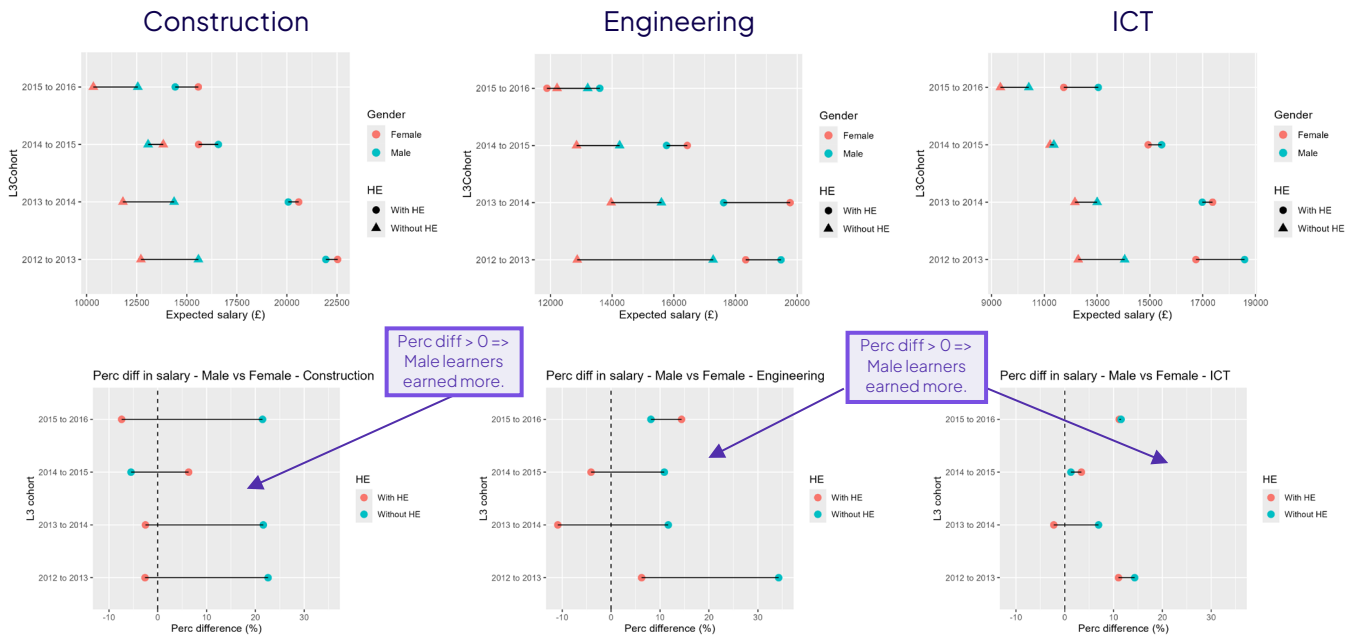
Most notably, in BTEC Health and Social Care, female BTEC learners earn a considerably higher salary boost relative to males doing BTECs if they go to HE, largely reversing the gender gap seen among those who do not access HE .

Graph 3gi: Expected salary by Level 3 cohort for BTEC Health & Social Care, grouped by gender along with HE and non-HE routes.



For the remaining three subjects, the story is mixed across the cohort years. That said, as learners mature, we do see instances where female BTEC learners earn higher salaries, notably in BTEC Construction and Engineering.

Graph 3gii: Expected salary by Level 3 cohort for BTEC subjects Construction, Engineering and ICT. Grouped by gender along with HE and non-HE route.



Relationship between BTEC subject studied and sector of employment

Finally, we investigated whether there is a correlation between higher salaries and working mainly in the sector which is closest to the subject of BTEC studied.

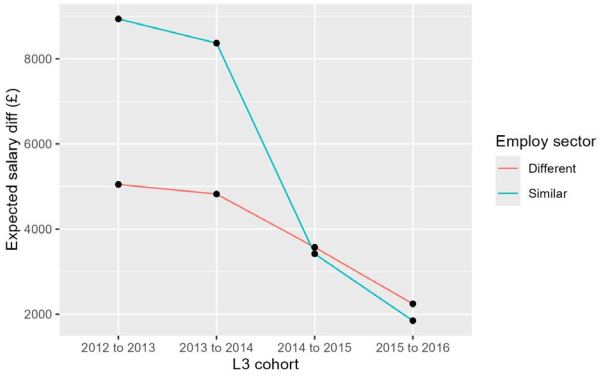
For the purposes of this exercise, comparable BTEC subjects and employment sectors are mapped below.

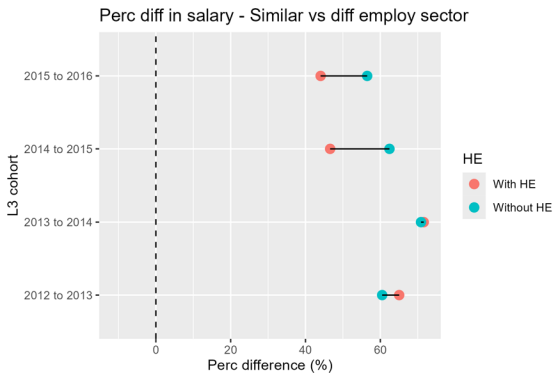
BTEC subject	Employment sector (SIC)
Health, public services and Social Care (HSC)	Human health and social work activities
Construction, Planning and the Built Environment (Construction)	Construction
Information and Communication Technology	Information and communication

The analysis shows significantly higher salary increases for BTEC learners who have participated in HE and then gone on to work in the related employment sector, and particularly so in health and social care sector (see detailed breakdown in Annexe, page **52**).

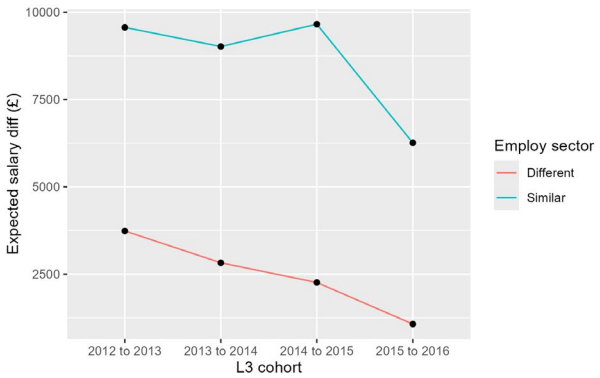
Graph 3h: Expected salary by Level 3 cohort for BTEC subjects Construction, Health & Social Care and ICT, grouped by BTEC and employment sector comparison along with HE and non-HE route.

Construction

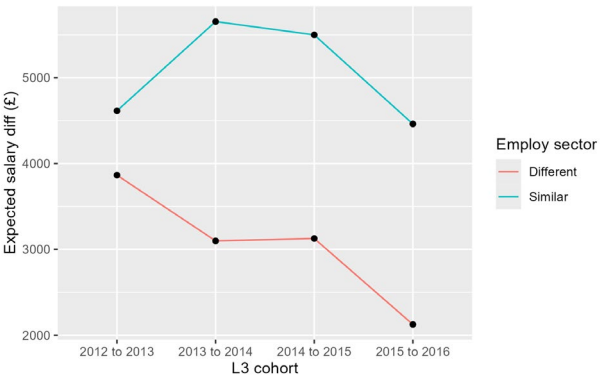




Health



ICT



Conclusions

The findings of this research match the analysis seen in earlier work using the LEO datasets, but have added to and enriched the literature in several ways. Updating the analysis to include cohort data to 2021 gives us a more up-to-date picture, reflecting recent labour market activity such as recovery from the economic downturn in 2008. This analysis looks at qualification types in a more granular way than previous research, allowing learners and educators to understand salary outcomes, and facilitating more informed pathway decisions after the school phase. This granular analysis also supports evidence-based policy decisions that will determine 16—19 pathways and provision, and inform thinking about the value of VTQs in addressing sector skills needs.

Caution should always be taken when attempting to reduce any qualification to a monetary value; this would misrepresent their role amid complex relationships within the labour market and structures of society. That said, this work has unearthed some interesting data, giving a fuller picture of relationships between learner characteristics and salary outcomes. It is unsurprising that learners with particular characteristics such as low economic backgrounds and weak KS4 outcomes experience lower salaries. This research, however, shows how BTECs have a positive relationship by closing disadvantage gaps in salaries, most notably for female workers. This is powerful for policy-makers and educators alike in making decisions about funding and future provision, and targeting resources to address societal disadvantages and support greater social mobility.

For fullness, and not wishing to ignore the age-old comparison between vocational and academic qualifications, this analysis has shown the difference in salaries of learners taking A levels, BTEC and mixed routes. It may surprise no one that A level learners will go on to earn higher salaries than their peers taking VTQs. Pathway choices through the 16—19 phase are complex; the concept of choice at Level 3 is determined by many factors, not least of which are prior attainment, learners' own career or study aspirations and availability of different provision in their area. Taking the example of a skills-shortage area, health and social care, this research shows very positive outcomes for learners taking a BTEC and following through to a graduate-level job in this sector. Recent analysis by *Protect Student Choice*[6] indicates that reducing availability of VTQs in this area, would not add more learners to the A level pool; it would more likely result in a loss of pathway for around 52,000 learners in health and science subjects, compounding skills shortages further.

6 www.protectstudentchoice.org [accessed Sep 2025]

Comparing BTECs and A levels on salary alone misses the complexities in this discussion about the value of VTQs to the learners who take them, and the society they contribute to.

Finally, it is important to point out that whilst this research makes clear links between learners, the qualifications they take and salary, it doesn't seek to explain why this happens. To understand more about these phenomena, qualitative research should examine more fully the context of the design, delivery and assessment of these qualifications. This research was designed to complement the many studies already published that seek to unpack the transformational nature of the 16—19 phase and the experiences of learners, educators and employers.

Limitations of this research

As with any research, the absence of infinite time and resource meant decisions were made at the outset limiting the scope of this research. In considering learner characteristics, published data show that region of ordinary residence and ethnicity have a relationship with learner salary outcomes. In scoping this research, region was excluded as a characteristic because of the complex nature of the analysis needed to weigh the findings for disparities in employment opportunity and wage levels across the UK. With regard to ethnicity, this is inextricably linked to educational outcomes; it may also mask economic or educational disadvantage. For this reason, FSM and KS4 outcomes were used in this research as they represent more direct characteristics and are also more applicable to a binary approach to analysis of the datasets, e.g. FSM yes or no.

This research looked at learners with SEND, and it was notable that this characteristic was less consistent than others in showing impact of Level 3 qualification on salary. There are various reasons why this may be the case, including a lack of granularity in the classification of SEND and inconsistencies across schools' approaches to SEND. Most notably, the self-selecting nature of post-16 study, with learners choosing qualifications that best meet their ways of working, could lead to a mitigation of SEND needs. We can't know this for certain without additional research to address these gaps.

Finally, whilst the LEO datasets provide a powerful source of data, there are necessarily limitations given that the data are compiled from across a number of administrative platforms. Whilst Pearson data allows matching to BTEC National qualifications by title, it was not possible to identify other VTQs individually and therefore these qualifications were grouped as one. Similarly, when looking at mixed routes, it was only possible to look at A level and BTEC; other Level 3 VTQs were not included.

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