International Baccalaureate Career-related Programme students studying at UK higher education institutions:

How do they perform in comparison with BTEC students?

Vicky Duxbury, Chris Westlake, Emma Jones, Will Joice

April 2021

Conducted on behalf of the International Baccalaureate Organization

Jisc data analytics

Contents

Executive summary

Students enter higher education (HE) in the UK from a wide variety of educational backgrounds with differing academic qualifications. It is of interest to explore any differences in the characteristics or trends in the cohorts of students with different academic qualification prior to higher education, during and after their student journey.

The aim of this report is to compare students who enter UK HE after taking a Career-related Programme (CP) awarded by the International Baccalaureate (IB) and those entering with a Business and Technology Education Council (BTEC) qualification.

The report begins by investigating differences between first year, full-time first degree International Baccalaureate Career Programme (IB CP) students and BTEC students enrolled in UK HE from 2014/15 to 2018/19 by their background characteristics including domicile, entry qualification grade, equal opportunities and widening participation. Following this, comparisons are made on the subject areas that IB CP and BTEC students are enrolled on.

On successful completion of a HE qualification, students become “qualifiers”. Differences between the achievement of qualifiers from 2015/16 to 2018/19 who hold an IB Career Programme or BTEC qualification are analysed; this is further investigated by subject.

The Higher Education Statistics Agency (HESA) Graduate Outcomes survey was collected approximately 15 months after successful completion of their qualification; qualifiers become known as “graduates”. The survey results give insight into whether graduates engage into the graduate journey of work or study post-HE. Differences between graduates in 2017/18 who hold an IB CP qualification or BTEC qualification by post-HE activity are explored including occupation, and industry.

Between 2014/15 and 2018/19, there were a total of 535 IB CP students identifiable in the HESA data. A small number of students (50) were identified in 2014/15, this increased in 2018/19 to 145. The number of IB CP students identifiable in the HESA data is far lower than their equivalent BTEC students. There were 87,505 BTEC students in 2014/15 increasing to 88,530 in 2018/19. Thus, it is important to note that due to small samples of IB CP students, qualifiers and leavers available for analysis care should be taken when interpreting the trends in CP students’ outcomes and the comparisons between IB CP and BTEC students.

STEM subjects were more popular with BTEC students (43%) than IB CP students (39%). The most popular subjects of study for IB CP students were business & administrative studies, 18%, and biological sciences, 18%. The most popular subjects studied by BTEC students were business & administrative studies (16%) and creative art & design (16%).

For those who achieved a first degree qualification from a UK HE provider, 70% of IB CP qualifiers achieved a first class or upper second class honours degree compared to 66% of BTEC qualifiers. The same proportion (64%) of IB CP and BTEC qualifiers who had studied a STEM subject at HE achieved a first class or upper second class honours degree. For non-STEM subjects, a higher percentage of IB CP qualifiers (73%) gained a first or upper second class honours compared to BTEC qualifiers (67%).

With regards the outcomes of graduates, a similar proportion of IB CP (74%) and BTEC graduates were in work (75%). A higher proportion of IB CP graduates (11%) were engaged in further study than BTEC graduates (6%).

Introduction

This report provides a comparative in depth-analysis of students who enter UK higher education with an International Baccalaureate Career Programme (IB CP) qualification to those who enter with Business and Technology Education Council (BTEC) qualifications, with a focus on enrolment on Science Technology Engineering or Mathematics (STEM) subjects, continuation into the second year, achievement of first class honours degree, and activity fifteen months post completion of their first degree.

The IB CP qualification is studied by students aged 16-19 and is currently available in more than 250 schools in 30 countries, including the United Kingdom. In 2012, in the UK County of Kent, an initiative was undertaken to implement the IB CP in its state schools. Currently there are approximately 30 schools participating in the Kent initiative and a total of 47 schools offer the IB CP in the UK (IBO, 2021). The IB CP is a framework of international education that incorporates the values of the International Baccalaureate into a unique programme addressing the needs of students engaged in career-related education. The programme can lead to further/higher education, apprenticeships or employment. IB CP students undertake a minimum of two IB Diploma Programme courses, a core consisting of four components (the reflective project, service learning, personal and professional skills, and language development) and a career-related study.

BTEC qualifications (Level 3) are offered in many schools and further education colleges around the UK and are studied by 16-18 year-old students, typically over two years. They are specialist work-related qualifications and are undertaken in a wide range of vocational subjects including business studies and engineering.

Data sources

The report combines data sourced from both the International Baccalaureate Organization (IBO) and the Higher Education Statistics Agency (HESA).

IBO maintains an information system (IBIS) that holds information about students around the world who have taken at least one IB examination. HESA collects information about the academic career of students prior to their enrolment in HE, their achievement at HE and their destination after leaving HE. HESA have linked the individual IB student records to HESA student records to identify students holding IB qualifications to enable the tracking of students through their academic career.

The IB CP cohort is based on students known to hold an IB CP qualification from IBIS who successfully link to the HESA data. Detailed information about students' qualifications prior to starting HE was collected by HESA for entrants from 2007/08 onwards. This information only covers a subset of students who apply to HE through the admissions service responsible for managing applications to HE courses in the UK (UCAS). Only information on qualifications for which the students passed prior to entering HE are held in the HESA record. IBIS also includes qualifications which were taken but not passed.

Successful linking between the HESA record and IBIS enabled HESA to identify students in the HESA record who were known to hold an IB CP qualification. The IB CP cohort is therefore comprised of all students in the HESA record who have a successful link to the IB datasets and the qualification information from that record can be utilised. All analysis is restricted to students who were UK domiciled. A small number of students were identified in the HESA record as holding both an IB CP and BTEC qualification. Due to the linking logic, these students were classified as IB CP students and no information about their BTEC qualification was retained for the purposes of this report.

Some of the information contained in the HESA record is returned from an entrant's UCAS application form via the student's HE provider. If an entrant does not apply through UCAS, the HE provider is encouraged to complete this information but that is not always the case and so may return unknown. This can create missing values for qualifications on entry or socio-economic classification (SEC), to name but a few.

In this report the BTEC cohort is defined as students who hold a BTEC qualification on entry.

The report provides an overview and descriptive statistics of the IB CP cohort shown alongside the equivalent BTEC cohorts. Where appropriate, a two-proportion z-test is performed to investigate if specified characteristics are significantly different between the IB CP and BTEC cohorts. All z-tests are performed at the 5% significance level ($p<0.05$).

Throughout the report, any percentages calculated on small populations have been suppressed (see rounding strategy for details).

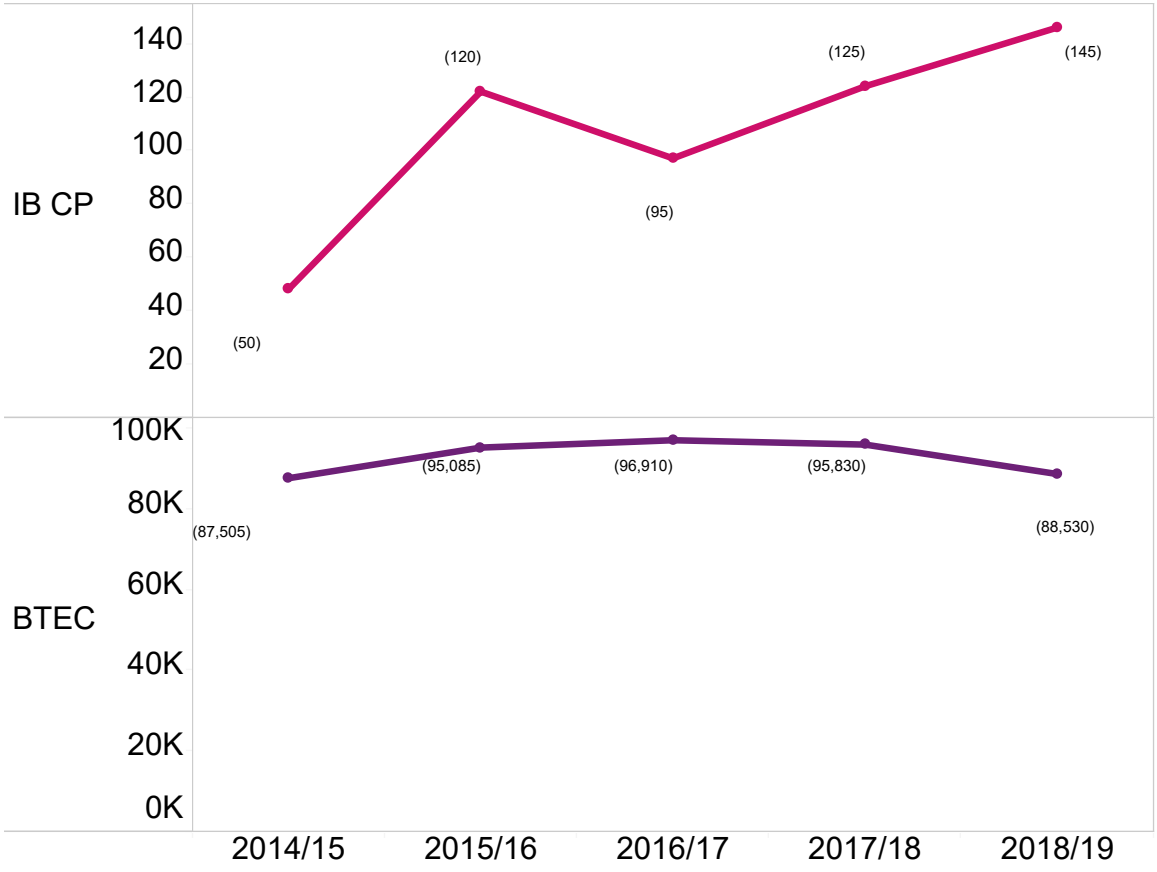
Descriptive comparison of IB CP and BTEC holders

Time series of student cohorts

Within the section regarding students at UK HE providers, references to IB CP/ BTEC students are students who were UK domiciled, in their first year of study, enrolled on a full-time first degree at a UK HE provider with an IB CP qualification or BTEC qualification, respectively.

Figure 1 shows between 2014/15 and 2018/19, there were a total of 535 IB CP students identifiable in the HESA data. The small number of students in 2014/15 (50) was followed by larger increases in the following years, with nearly three times the number of students enrolled in 2018/19 (145). This is likely to be related to the uptake of the IB CP qualification in the County of Kent, where the number of schools implementing the IB CP increased from 9 in 2012 to 29 in 2020. However, the number of IB CP students identifiable in the HESA data is far lower than the equivalent BTEC students. There were 87,505 BTEC students in 2014/15, peaking in 2016/17 at 96,910 and falling to 88,530 in 2018/19.

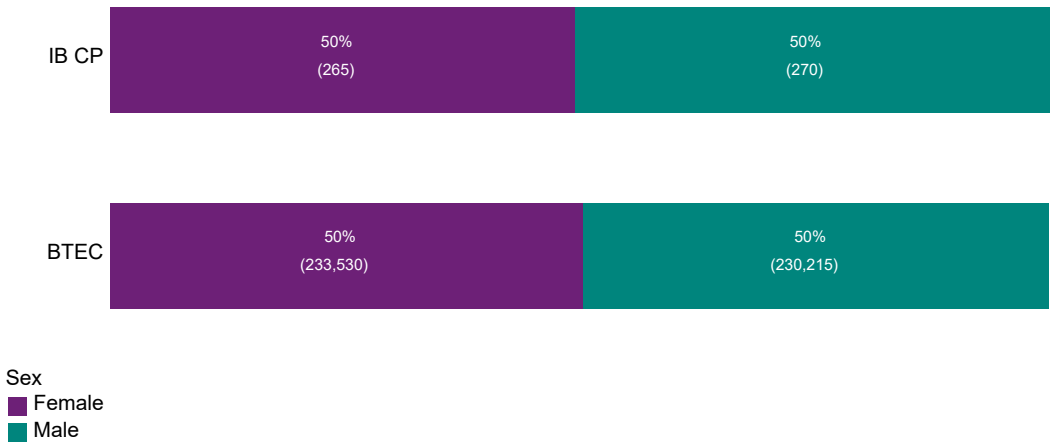
Figure 1 UK domiciled first year full-time first degree students by entry qualification, 2014/15 to 2018/19



Due to the small number of IB CP students identified in the HESA data, all further analysis compares all IB CP students and BTEC students combined across the time series 2014/15 to 2018/19.

Figure 2 shows the breakdown of entry qualifications by sex for 2014/15 to 2018/19 combined. The proportion of males and females is equally split for both IB CP students and BTEC students across the complete time series.

Figure 2 UK domiciled first year full-time first degree students by entry qualification and sex, 2014/15 to 2018/19 combined



Region of domicile for UK domiciled students

The IB CP qualification was launched in 2012, in the County of Kent. Perhaps unsurprisingly, across the time series 2014/15 to 2018/19, 58% of IB CP students were domiciled from the South East and 19% were domiciled from London. The remaining 23% were from different regions including the West Midlands (6%), Yorkshire and the Humber (6%), the North West (7%) and East of England (4%).

BTEC students were domiciled from across the UK within the time series 2014/15 to 2018/19. The highest proportion were domiciled from London (18%) followed by the North West (14%), the South East (12%), the West Midlands (12%), Yorkshire and The Humber (10%), the East of England (8%), the East Midlands (7%) and the South West (7%). All other regions had 5% or fewer BTEC students domiciled from there.

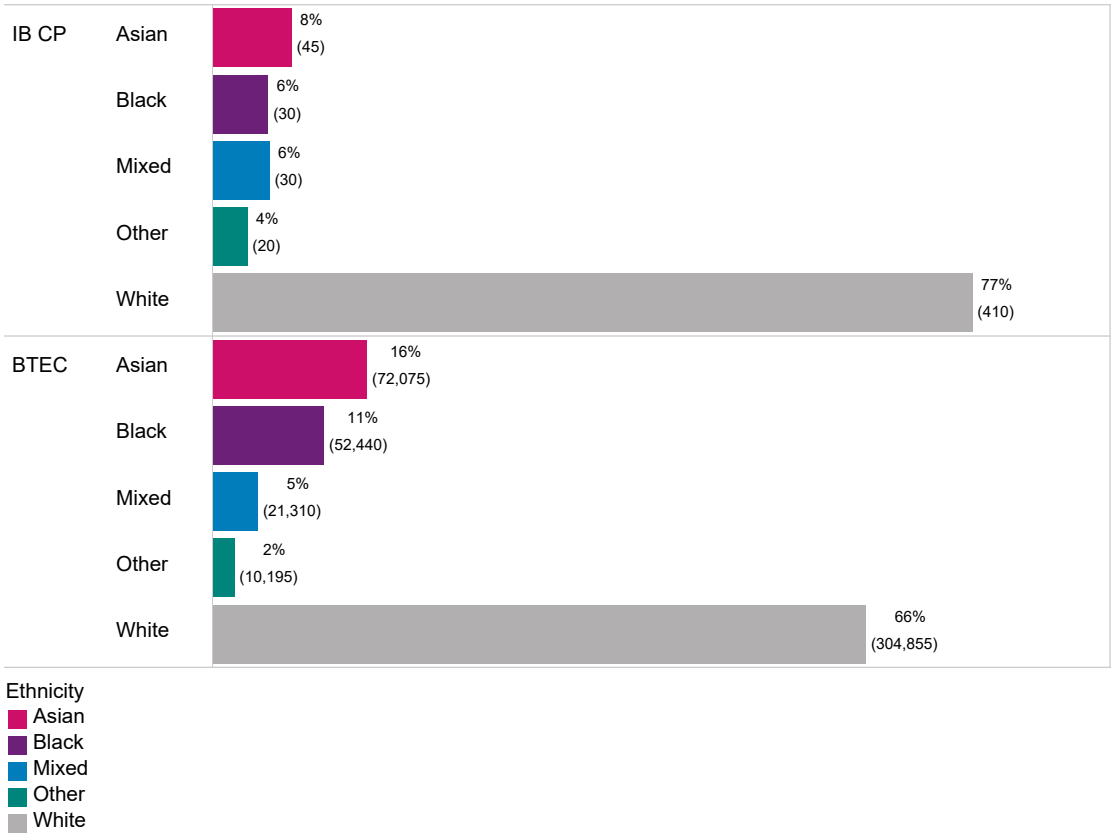
Equal opportunity and widening participation

This section concentrates on equal opportunity and widening participation background characteristics of IB CP and BTEC students, focussing on participation of certain groups that may be underrepresented in HE for 2014/15 to 2018/19 combined.

The proportion of IB CP students from a Black, Asian and minority ethnic (BAME) background was 23% which was statistically significantly lower than the proportion of BAME BTEC students (34%) across the time series.

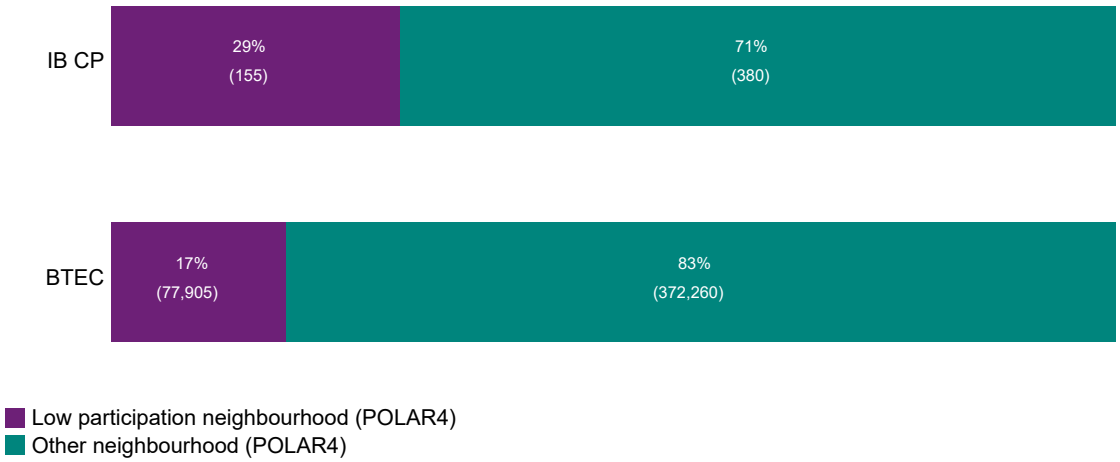
Looking in more detail in Figure 3, there was a higher proportion of Asian BTEC students (16%) than Asian IB CP students (11%), similarly there was a higher proportion of Black BTEC students than Black IB CP students (6%).

Figure 3 UK domiciled first year full-time first degree students by entry qualification and ethnicity, 2014/15 to 2018/19 combined



Information about the neighbourhood a student was living in prior to entering HE is based on POLAR4 developed by the Higher Education Funding Council for England (HEFCE). It is an update of POLAR3, using cohorts of students who were aged 15 at the start of academic years 2006/07 to 2011/12 and hence could have entered HE between 2009/10 and 2014/15. Students whose postcodes fall within wards with the lowest 20% of participation rates are denoted as being from a low participation neighbourhood. Figure 4 shows there was a statistically significant higher proportion of IB CP students from a low participation neighbourhood (29%) than BTEC students (17%) for 2014/15 to 2018/19 combined.

Figure 4 UK domiciled first year full-time first degree students by entry qualification and low participation neighbourhoods marker (POLAR4), 2014/15 to 2018/19 combined

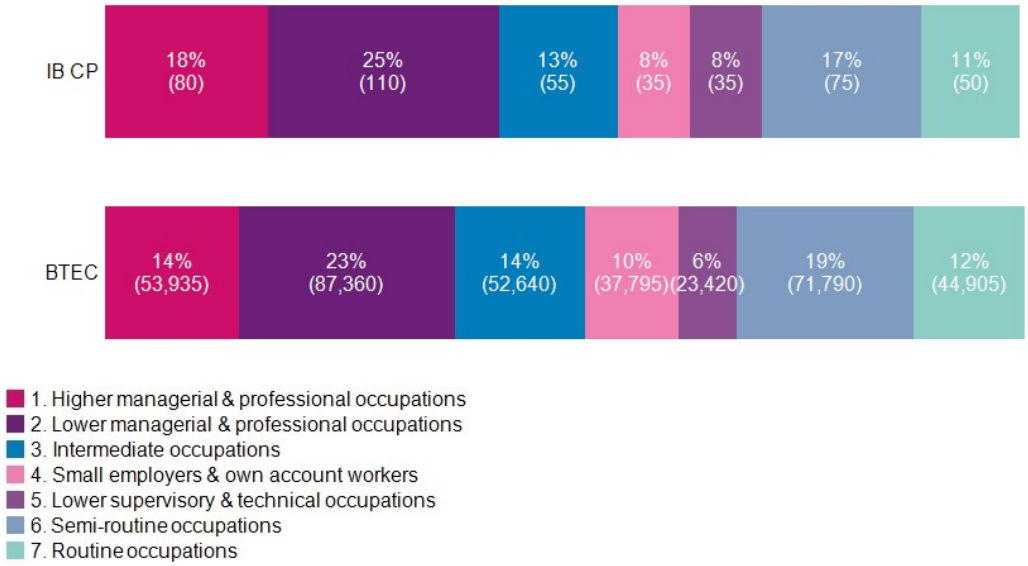


Socio-economic classification (SEC) of UK domiciled students aged under 21 on entry refers to the occupation of their parent or guardian, whilst it corresponds to their own occupation if they are aged 21 and over. SEC information is either not classified or unknown for approximately 16-17% of IB CP and BTEC students across the time series. These students have been excluded from further calculations regarding SEC.

Figure 5 shows for 2014/15 to 2018/19 combined, 'lower managerial and professional occupations' (level 2) was the most common classification for all students regardless of entry qualification (25% IB CP and 23% BTEC).

55% of IB CP students were from a higher socio-economic classification (1-3) compared to 52% of BTEC students. A higher percentage of students were from a higher socio-economic classification (1-3) than lower socio-economic classification (4-7) for both entry qualifications, although this was not statistically significantly different.

Figure 5 Proportion of UK domiciled first year full-time first degree students by entry qualification and socio-economic classification (1-7), 2014/15 to 2018/19 combined[1]



[1] Please note that due to small numbers, the category 'Never worked & long-term unemployed' have been included in the percentage calculations, but not shown (IB CP: 1% (5), BTEC: 1% (3,140).

Region of HE provider

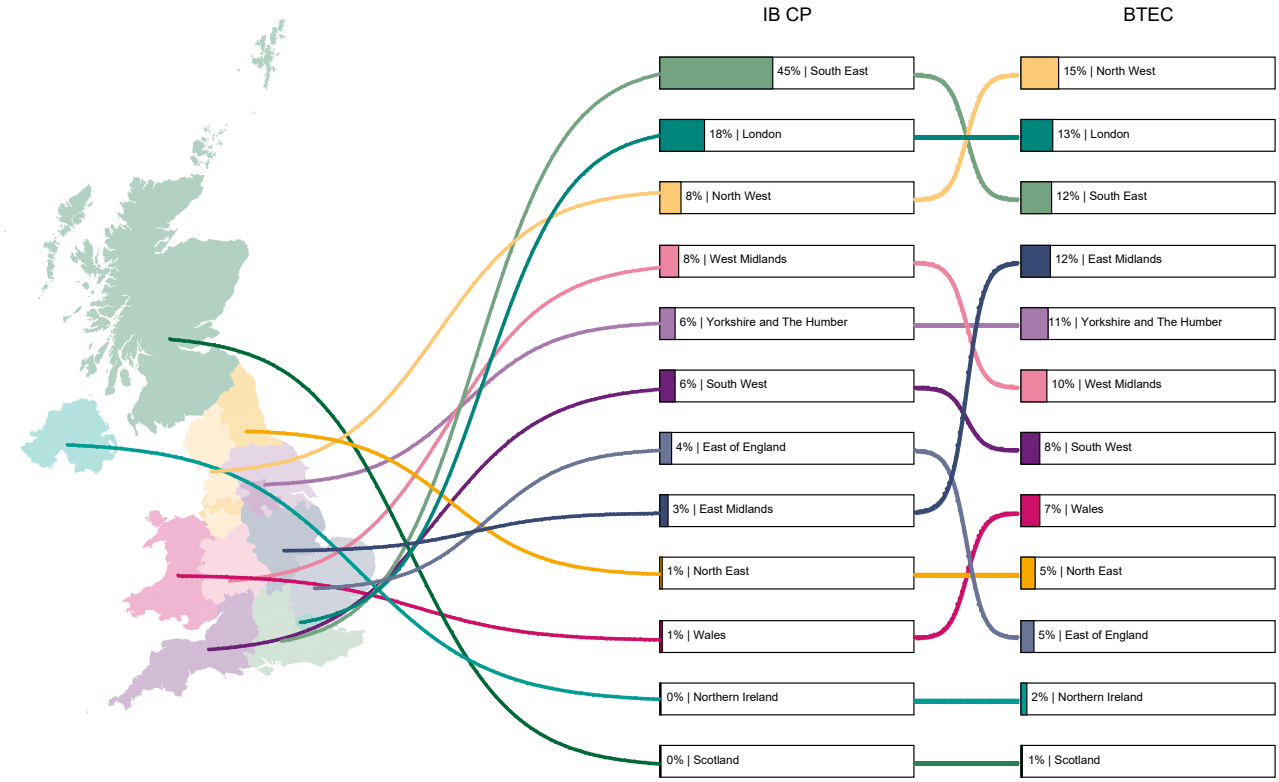
IB CP and BTEC students were enrolled at 157 HE providers across the UK. Of these providers, 127 were in England across 9 Government Office regions, 8 were in Wales, 18 in Scotland and 4 in Northern Ireland.

Figure 6 shows the proportion of IB CP and BTEC students by region of HE provider 2014/15 to 2018/19 combined. The most popular location of HE provider for IB CP students was the South East (45%), followed by London (18%), the North West (8%) and West Midlands (8%). Over three quarters of IB CP students chose to study in one of these regions. The location popularity of HE providers was much more geographically spread across the UK for equivalent BTEC students; the most popular locations were the North West (15%), London (13%), the South East (12%) and the East Midlands (12%).

For both IB CP students and BTEC students, there was a tendency to attend a HE provider within their own region of domicile. Overall, 72% of IB CP students studied at a HE provider in the same region of domicile, compared with 59% for BTEC students. 70% of IB CP students domiciled from the South East attended a HE provider in the South East, similarly 74% of IB CP students domiciled from London attended a HE provider in London.

This wasn't quite as profound for BTEC students in these regions, with 56% of BTEC students domiciled from London remaining in London to attend HE and 48% of BTEC students domiciled from the South East attending an HE provider in the South East. This did differ dependent on region, 75% of BTEC students domiciled from the North East attended a HE provider in the North East and 74% of BTEC students domiciled from the North West remained at a HE provider in the North West.

Figure 6 UK domiciled first year full-time first degree IB CP and BTEC students by region of HE provider and entry qualification, 2014/15 to 2018/19 combined



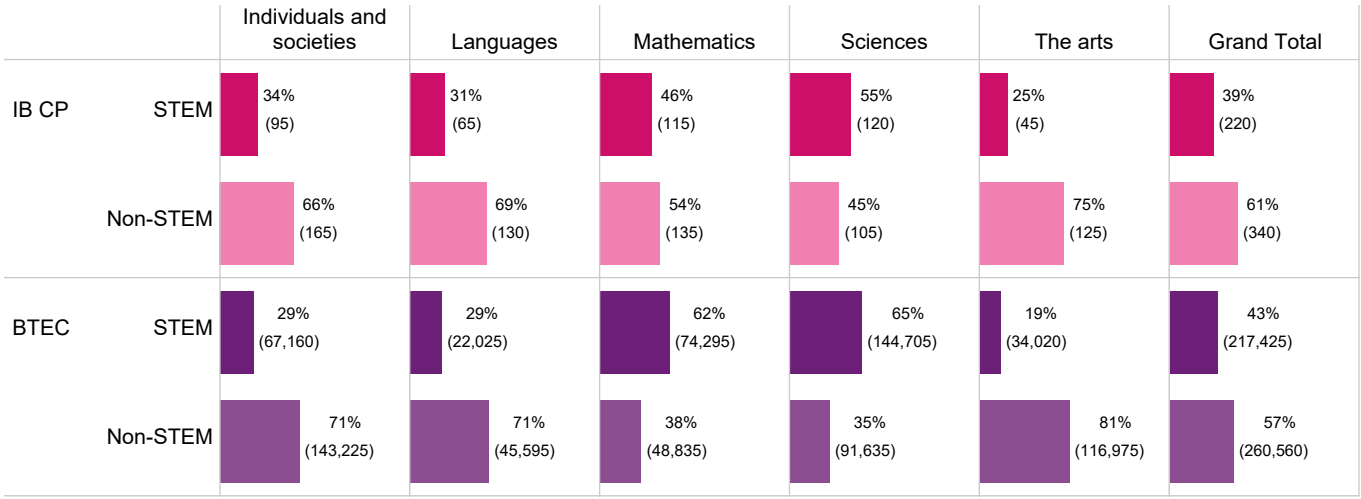
Subject area

UK HE providers offer a wide range of subjects to study. Enrolment by subject area differed within, and between the IB CP and BTEC student cohorts. Subject areas can be separated into two groups: STEM and non-STEM subjects. STEM subjects were statistically significantly more popular with BTEC students (43%) than IB CP students (39%).

The IB CP qualification allows students to choose at least two courses from the following subject groups: studies in language and literature, language acquisition (due to small numbers these subject groups have been combined as languages), individuals and societies; sciences; mathematics; and the arts. There are over 2,000 BTEC qualifications across 16 sectors[2]; the BTEC subjects were mapped to the five subject groups to allow comparison at an entry qualification subject level. As a student could have multiple entry subjects, the following charts are based on students with an element of the entry subject in their entry qualification. Therefore, there is an aspect of double-counting of students in charts which include entry qualification subject.

Figure 7 shows the entry qualification subject by STEM marker for 2014/15 to 2018/19 combined. For IB CP students, except for those who had a sciences element to their entry qualification, the majority went on to study a non-STEM subject at HE regardless of their entry qualification subject. A similar pattern was seen for BTEC students (with the exception for those students who had studied a mathematics or science element to their entry qualification), where the majority went on to study a non-STEM related subject in HE.

Figure 7 UK domiciled first year full-time first degree students by STEM marker and entry qualification subject, 2014/15 to 2018/19 combined



[2] **What is a BTEC diploma? - Nationals, Firsts & Apprenticeships (ucas.com)**

Figure 8 shows the breakdown of subject areas by entry qualification for 2014/15 to 2018/19 combined. The most popular subjects studied by IB CP students were business & administrative studies (18%) and biological science (18%). The most popular subjects studied by BTEC students were business & administrative studies (16%) and creative art & design (16%).

Subjects allied to medicine was more popular with BTEC students than IB CP students (10% and 6% respectively). Similarly creative arts & design was more popular with BTEC students than IB CP students (16% and 12% respectively), while biological sciences was more popular with IB CP students than BTEC students (18% and 14% respectively).

Figure 8 UK domiciled first year full-time first degree students by subject area and entry qualification, 2014/15 to 2018/19 combined

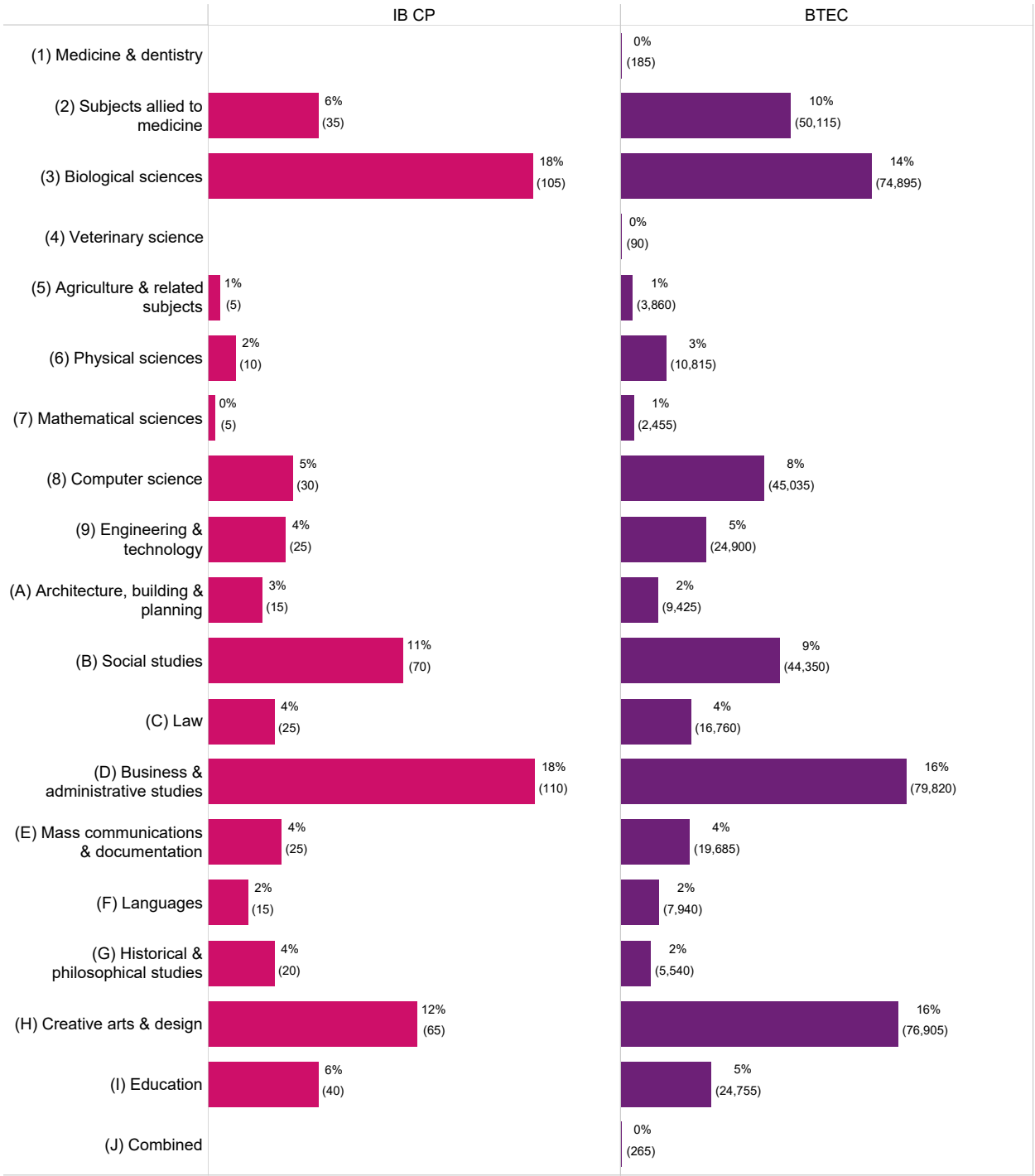


Figure 9 shows the entry qualification subject by subject of study at HE for 2014/15 to 2018/19 combined. The chart shows that 32% of IB CP students who had a sciences element to their entry qualification went on to study biological sciences at HE. Similarly, for IB CP students who had the arts element to their entry qualification, 31% went on to study creative arts & design.

There was also a similar trend for BTEC students, where 50% of BTEC students who had the arts element to their entry qualification went on to study creative arts & design. For BTEC students, 55% of those who had a mathematics element to their entry qualification went on to study another STEM subject at HE[3].

Figure 9 UK domiciled first year full-time first degree students by subject area and entry qualification subject, 2014/15 to 2018/19 combined

	IB CP					BTEC				
HE Subject of study	Individuals and societies	Languages	Mathematics	Sciences	The arts	Individuals and societies	Languages	Mathematics	Sciences	The arts
(3) Biological sciences	16% (45)	17% (40)	15% (45)	32% (70)	6% (15)	10% (22,780)	11% (8,040)	7% (9,505)	30% (68,910)	5% (8,345)
Other STEM	18% (50)	14% (30)	31% (75)	23% (50)	18% (30)	20% (45,175)	19% (14,280)	55% (65,200)	35% (78,200)	15% (25,995)
(B) Social studies	12% (35)	10% (25)	9% (25)	15% (35)	8% (15)	13% (27,410)	9% (7,310)	5% (7,145)	10% (27,760)	4% (7,405)
(D) Business & administrative studies	24% (60)	17% (35)	22% (60)	10% (25)	18% (35)	29% (64,745)	13% (9,855)	18% (22,200)	9% (23,970)	8% (13,945)
(H) Creative arts & design	6% (15)	17% (30)	7% (20)	6% (15)	31% (50)	7% (18,280)	17% (12,810)	7% (9,565)	4% (10,965)	50% (72,105)
Other non-STEM	24% (65)	26% (50)	15% (40)	15% (35)	18% (35)	21% (41,060)	30% (18,775)	8% (12,535)	13% (33,620)	18% (29,175)

[3] Please see BTEC subject groupings in the appendices for more information on how the BTEC subjects were grouped.

Non-continuation of students

The IB CP and BTEC students were linked from their first year of study into their second year of study to analyse non-continuation rates. Although there is some variation in the non-continuation rate across entry qualifications and entry subjects, most students do continue their studies into the second year. Care should be taken when interpretating percentages of IB CP students due to small numbers.

Figure 10 Percentage of UK domiciled first year full-time first degree students that left with no award by entry qualification and entry subject, 2014/15 to 2017/18 combined

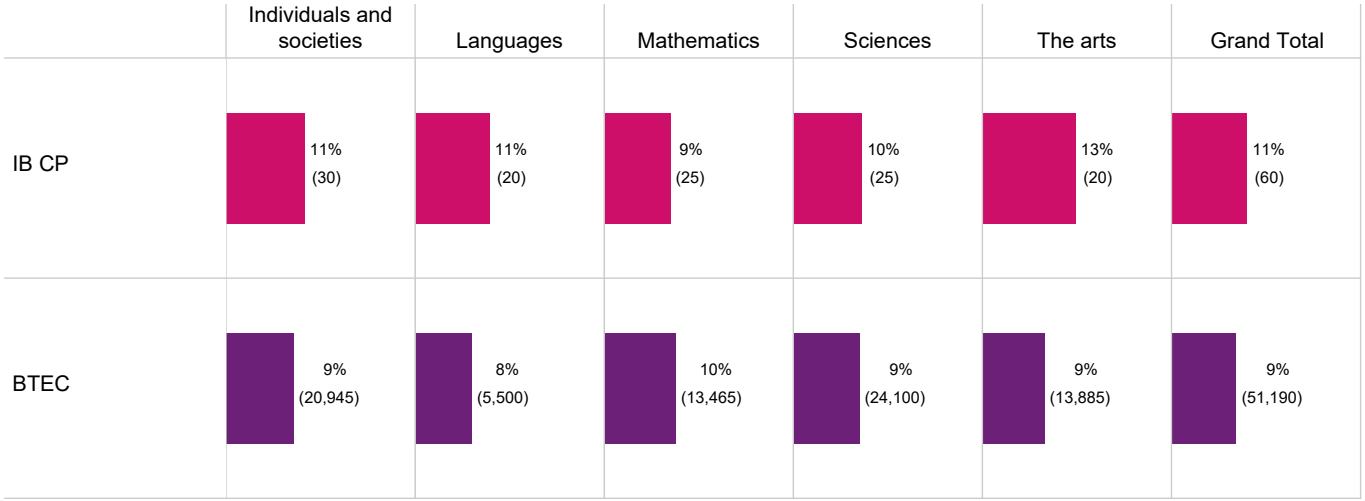
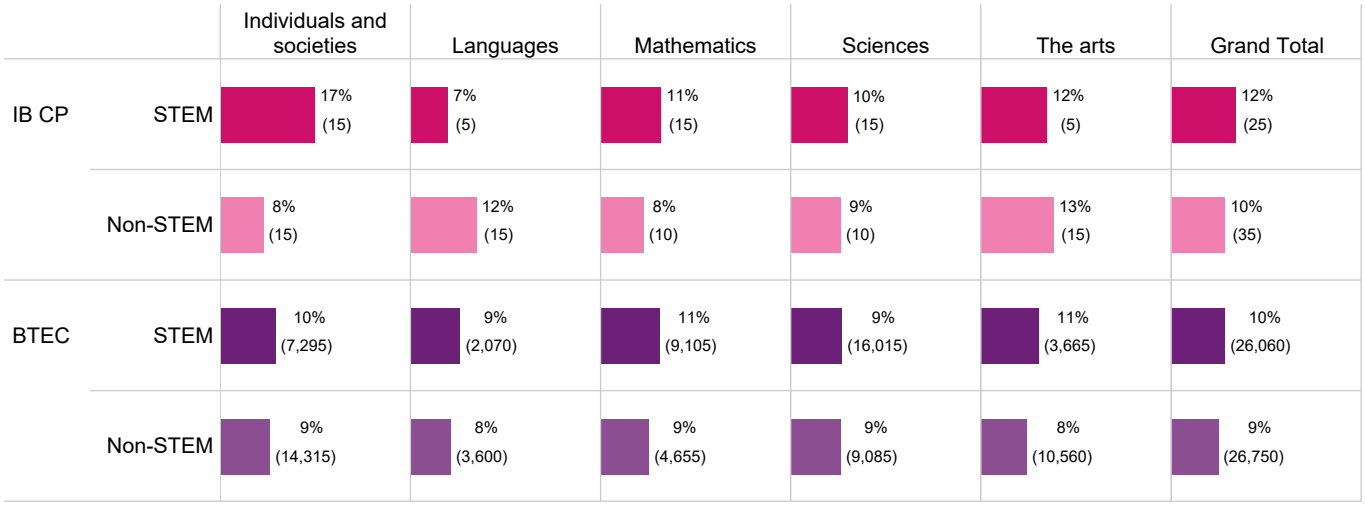


Figure 10 shows a slightly statistically significant higher percentage of IB CP students (11%) compared to BTEC students (9%) left with no award after their first year of study during 2014/15 to 2018/19 combined.

Figure 10 shows that the percentage of students who left with no award also differed by entry subject. 13% of IB CP students who had the arts element to their entry qualification left with no award compared to 9% of IB CP students who had a mathematics element to their entry qualification. Except for those students who had an entry qualification with a mathematics element, the percentage of students that left with no award was higher for IB CP students than BTEC students across all entry subjects.

Figure 11 shows that there was also a difference in the percentage of students who left with no award when analysing both entry subject and subject of study at HE for 2014/15 to 2018/19 combined. For both IB CP students and BTEC students, a higher percentage of students left with no award when they were enrolled on a STEM subject compared to a non-STEM subject (IB CP students, STEM: 12% Non-STEM 10%; BTEC students, STEM 10% Non-STEM 9%). Care should be taken when interpretating percentages of IB CP students due to small numbers.

Figure 11 Percentage of UK domiciled first year full-time first degree students who left with no award by entry qualification, entry subject and STEM subject marker, 2014/15 to 2017/18 combined



There were differences in the non-continuation rates of IB CP and BTEC students by their background demographics. Figure 12 shows the non-continuation rates of students by entry qualification and selected background demographics.

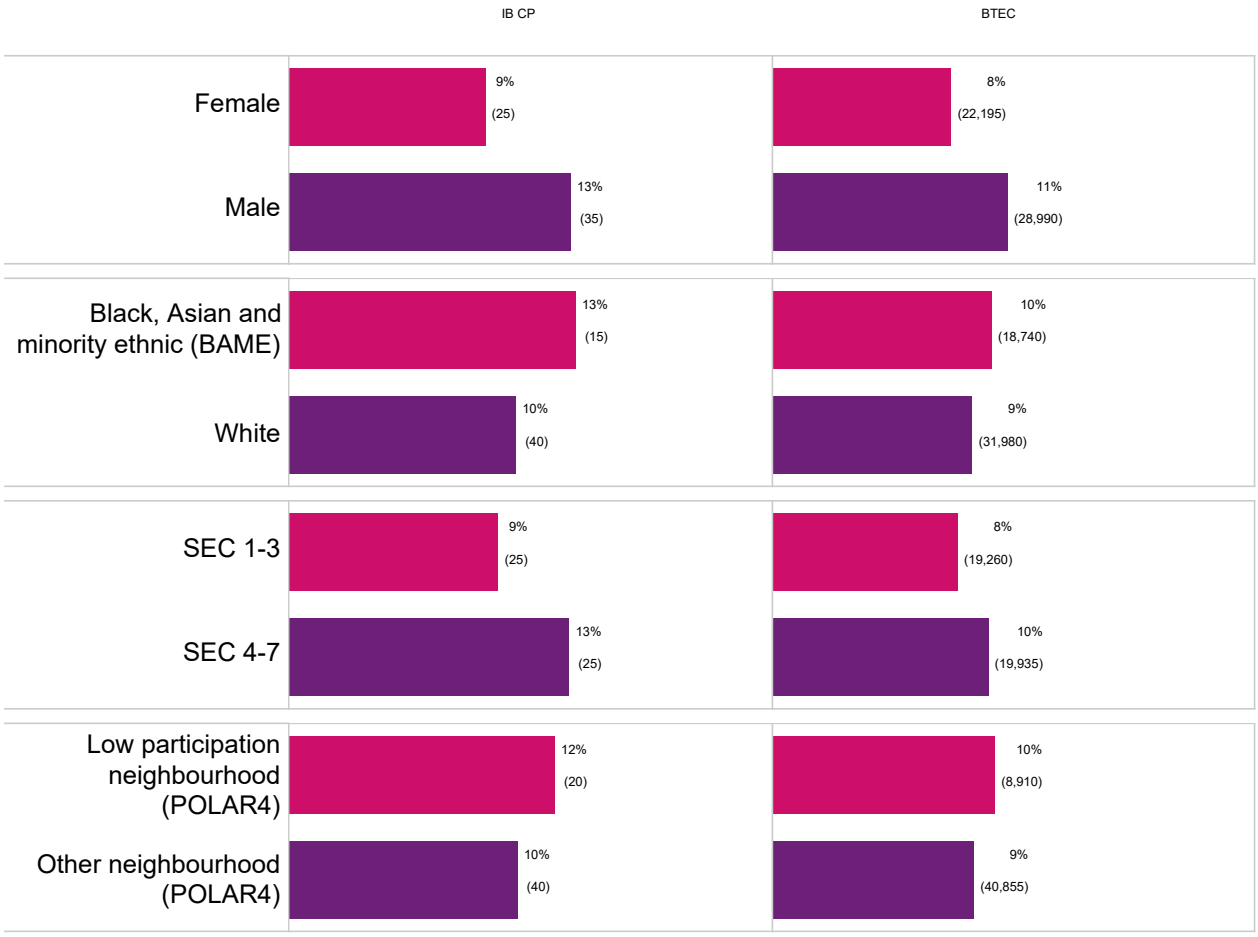
A higher proportion of male IB CP and BTEC students (13% and 11% respectively) left HE without an award than their female counterparts (9% and 8% respectively).

A higher proportion of BAME IB CP and BTEC students (13% and 10% respectively) left HE without an award than their white counterparts (10% and 9% respectively).

A higher proportion of students from a lower socio-economic classification (4-7) (13% IB CP, 10% BTEC) left with no award compared to students from a higher socio-economic classification (1-3) (9% IB CP, 8% BTEC).

A higher proportion of IB CP and BTEC students from low participation neighbourhoods (12% and 10% respectively) left with no award than those from other neighbourhoods (10% and 9%).

Figure 12 Percentage of UK domiciled first year full-time first degree students who left with no award by entry qualification and background demographics, 2014/15 to 2017/18 combined



Qualifier cohorts

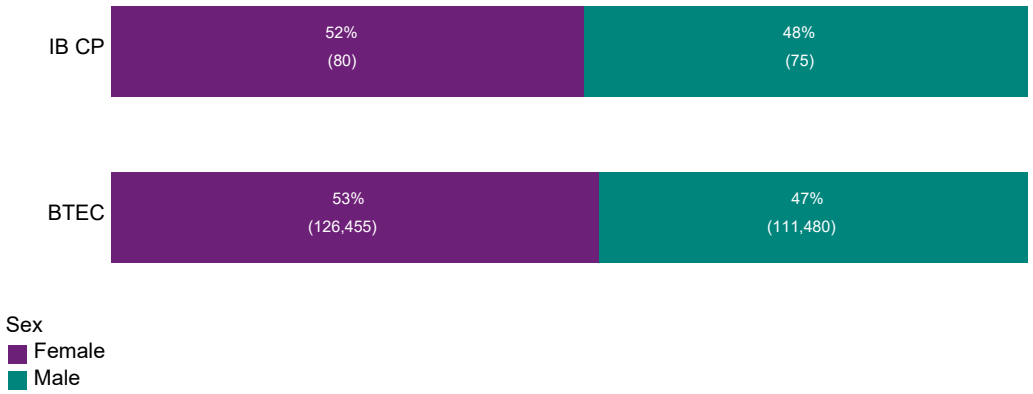
IB CP and BTEC qualifiers are graduates who achieved a full-time first degree at a UK HE provider, and who entered HE with an IB CP or BTEC qualification.

The IB CP initiative in the UK County of Kent was launched in 2012; the first students participating in the Kent initiative most likely entered HE and were observed in the HESA data in 2014/15. Following a typical 3-year first degree, the first IB CP qualifiers were in 2016/17 (30), increasing in 2017/18 to 75 and then slightly falling in 2018/19 to 50. In total, across the time series, 155 IB CP qualifiers were identified in the HESA data.

There has been a steady increase in BTEC qualifiers between 2015/16 to 2018/19. There were 51,120 BTEC qualifiers in 2015/16, increasing year-on-year to 64,500 in 2018/19.

Figure 13 shows the percentage of full-time first degree qualifiers by entry qualification, entry subject and sex. There was a similar proportion of IB CP female qualifiers (52%) compared to BTEC female qualifiers (53%), although this was not statistically significantly different.

Figure 13 Percentage of UK domiciled full-time first degree qualifiers by entry qualification and sex, 2015/16 to 2018/19 combined



The proportion of IB CP qualifiers from a Black, Asian and minority ethnic (BAME) background was 18%, which was statistically significantly lower than the proportion of BAME BTEC students (27%) across the time series.

Care must be taken when interpretating trends for IB CP qualifiers in Figure 14 due to small numbers. Across all entry subjects, there was a higher proportion of Asian BTEC qualifiers than any other ethnicity.

Figure 14 Percentage of UK domiciled full-time first degree qualifiers by entry qualification and ethnicity, 2015/16 to 2018/19 combined

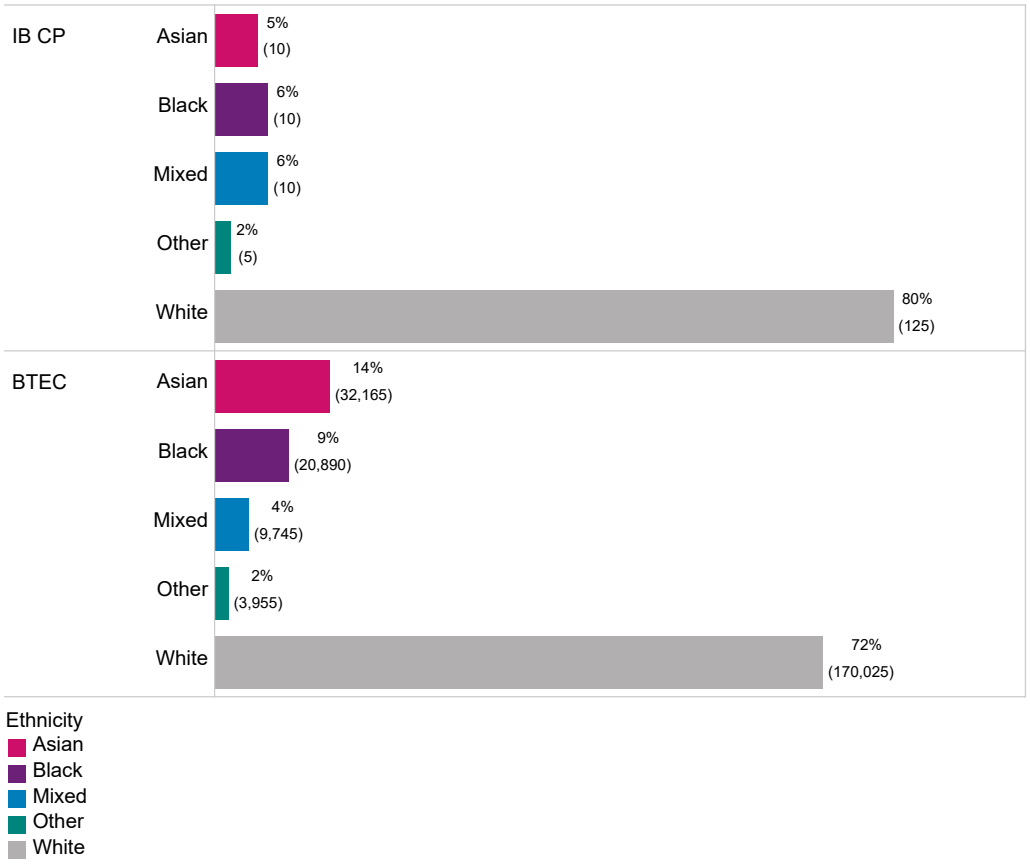


Figure 15 shows there was a statistically significant higher proportion of IB CP qualifiers from a low participation neighbourhood (31%) than BTEC qualifiers (17%) for 2015/16 to 2018/19 combined.

Figure 15 Percentage of UK domiciled full-time first degree qualifiers by entry qualification, entry subject and POLAR 4, 2015/16 to 2018/19 combined

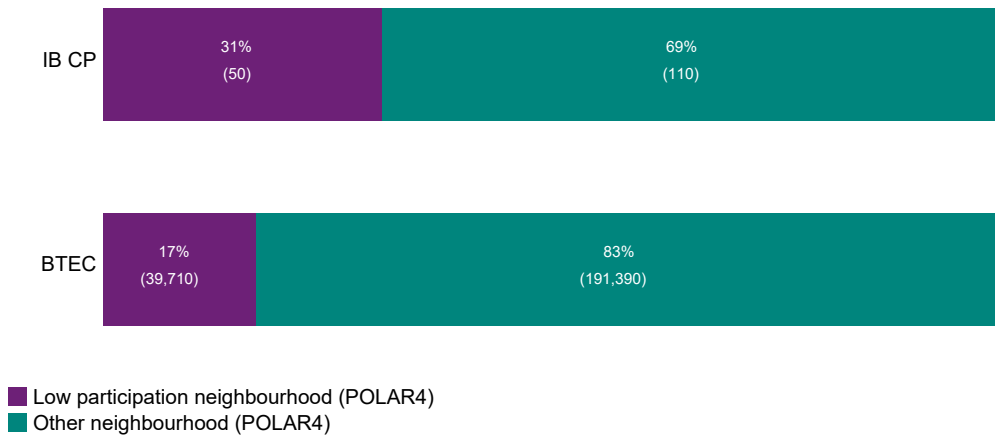
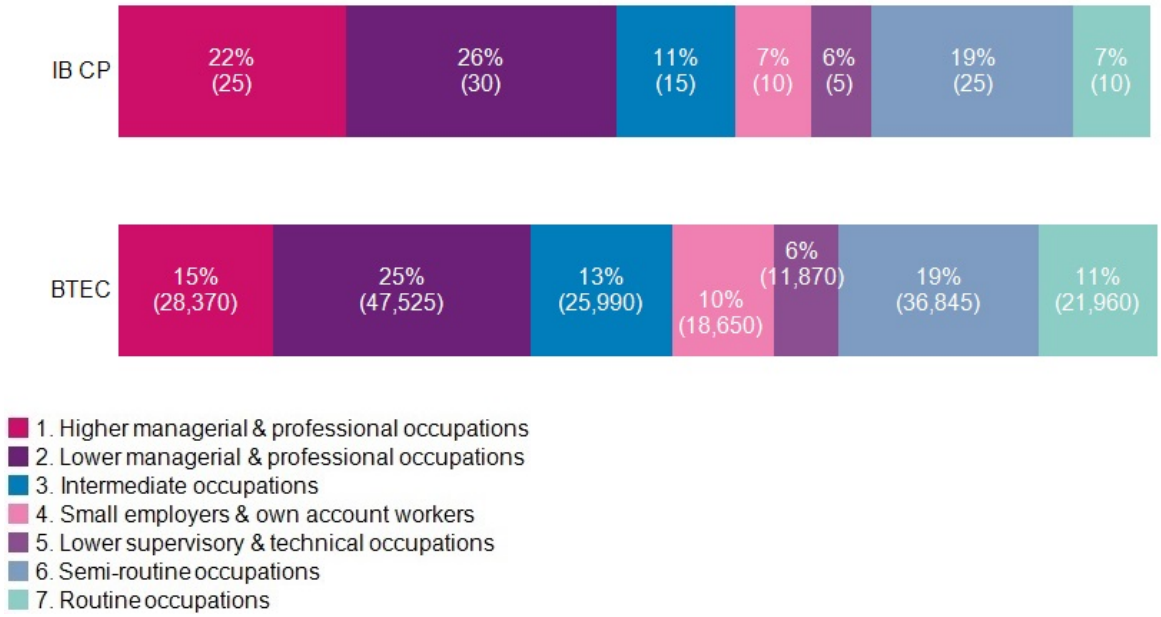


Figure 16 shows for 2015/16 to 2018/19 combined, ‘lower managerial and professional occupations’ (level 2) was the most common classification for all qualifiers regardless of entry qualification (26% IB CP and 25% BTEC).

There was a higher proportion of IB CP qualifiers from socio-economic classification (1-3) (59%) than BTEC qualifiers (53%) for 2015/16 to 2018/19 combined, which was not statistically significantly different.

Figure 16 Percentage of UK domiciled full-time first degree qualifiers by entry qualification, entry subject and sec 2015/16 to 2018/19 combined[4]



[4] Please note that due to small numbers, the category ‘Never worked & long-term unemployed’ has been included in the percentage calculations, but not shown (IB CP: 2% (0), BTEC: 1% (1,615).

Achievement

Figure 17 shows the proportion of qualifiers by entry qualification and class of first degree for 2015/16 to 2018/19 combined. Figure 17 shows a higher percentage of IB CP qualifiers achieved a first or upper second class honours (70%) than BTEC qualifiers (66%), which was not statistically significantly different.

Figure 17 Percentage of UK domiciled full-time first degree qualifiers by entry qualification and class of first degree, 2015/16 to 2018/19 combined

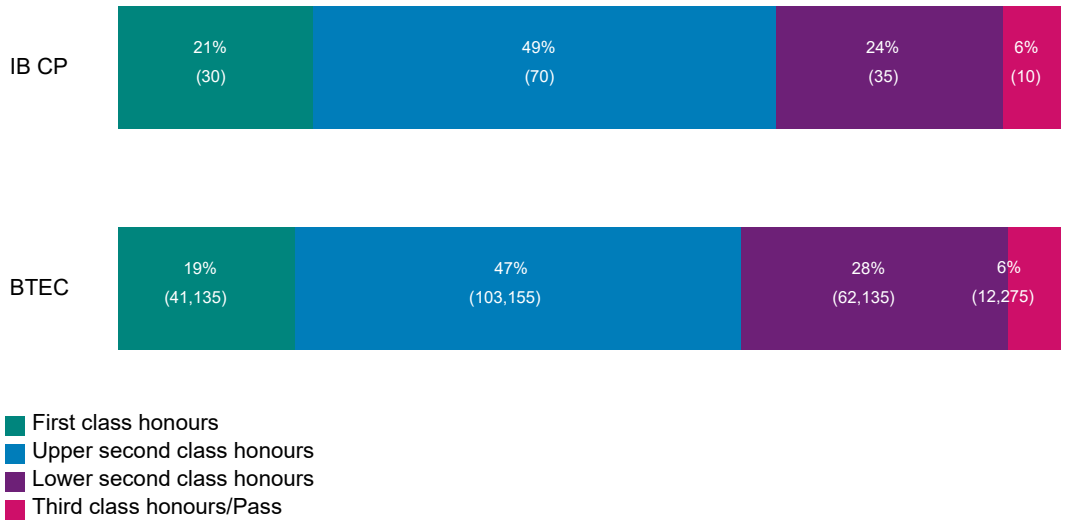
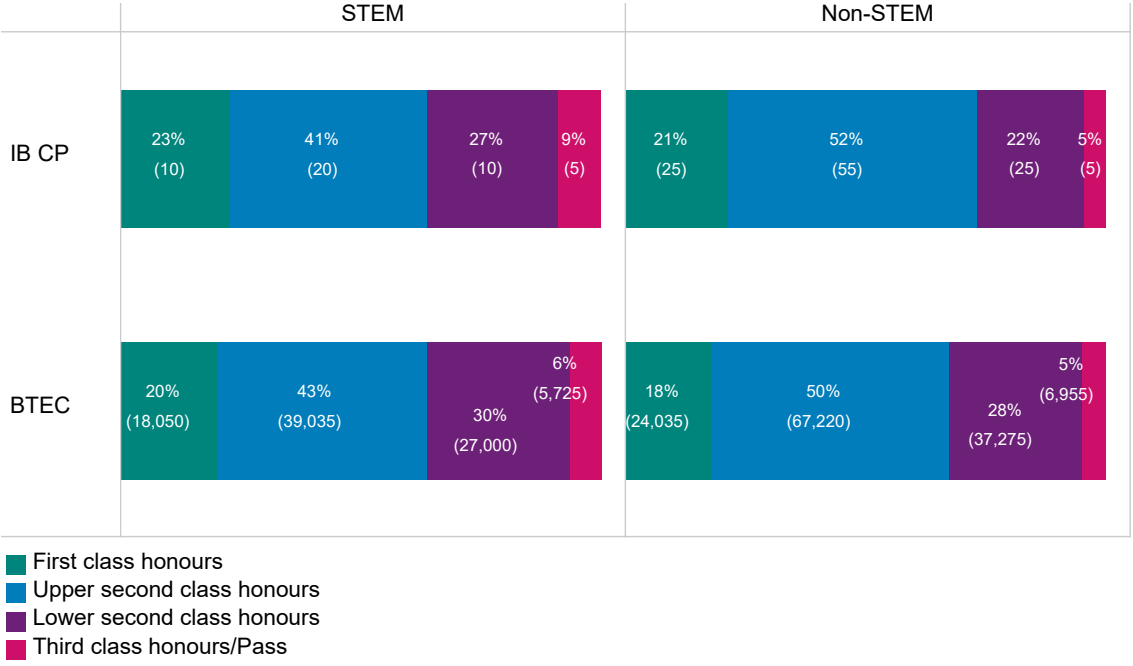


Figure 18 shows the achievement of first degree qualifiers by entry qualification and STEM subject marker. For both IB CP and BTEC qualifiers, 64% of qualifiers who studied a STEM subject at HE were awarded a first or upper second class honours. For those who had studied a non-STEM subject, a higher proportion of IB CP qualifiers (73%) gained a first or upper second class honours compared to 67% of BTEC qualifiers.

Figure 18 Percentage of UK domiciled full-time first degree qualifiers by STEM subject marker and class of first degree, 2015/16 to 2018/19 combined



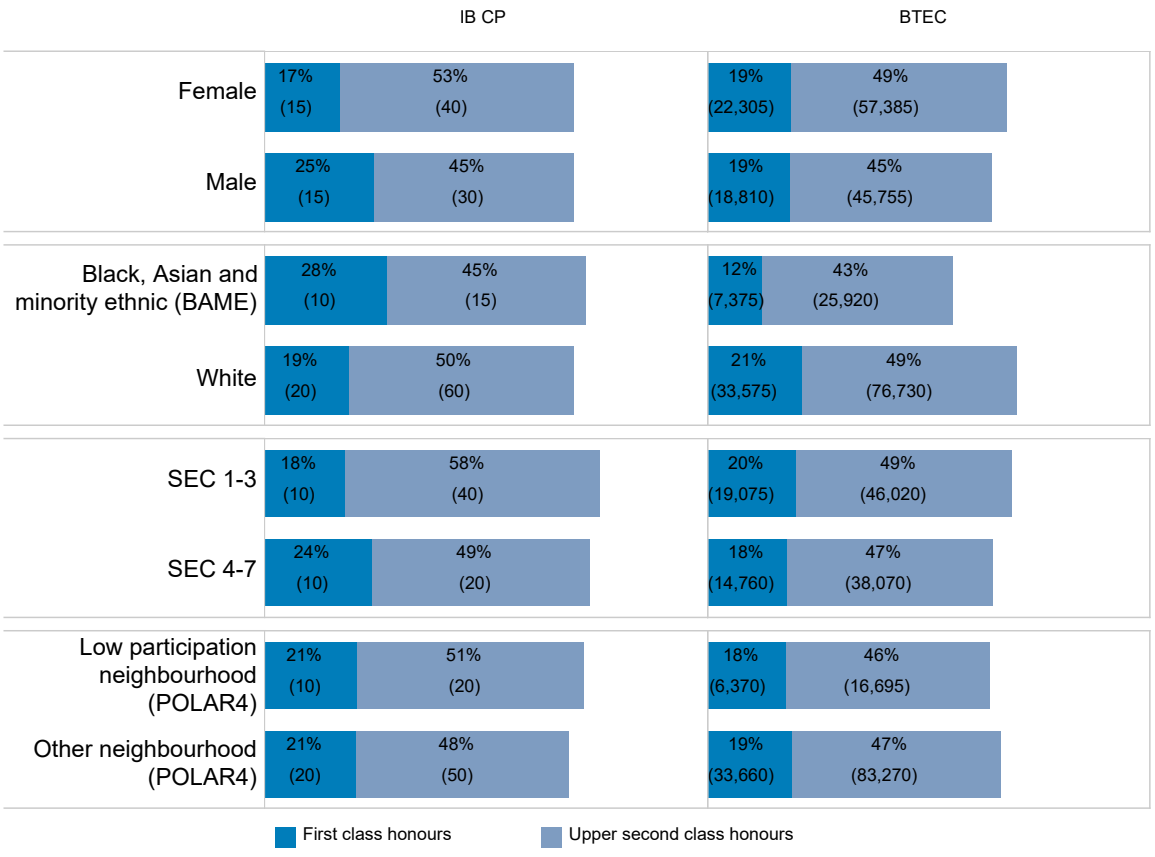
As with non-continuation rates, academic achievement differs by their demographic background. Figure 19 shows that 70% of both male and female IB CP qualifiers achieved a first or upper second class honours. A slightly higher proportion of female BTEC qualifiers achieved a first or upper second class honours (68%) compared to their male counterparts (64%).

A higher proportion of BAME IB CP qualifiers achieved a first or upper second class honours (73%) than white qualifiers (69%), the converse was true for BTEC qualifiers, with 70% of white BTEC qualifiers achieving a first or upper second class honours compared to 55% of BAME BTEC qualifiers.

A similar trend was seen when considering socio-economic classification for both IB CP qualifiers and BTEC qualifiers. Those from a higher socio-economic classification (1-3) performed better (IB CP qualifiers: 76%, BTEC qualifiers: 69%) than those from a lower socio-economic classification (4-7) (IB CP qualifiers: 73%, BTEC qualifiers: 65%).

IB CP qualifiers who were from a low participation neighbourhood were more likely to obtain a first or upper second class honours degree (72%) than those from other neighbourhoods (69%). The converse was true for BTEC qualifiers, with 64% of BTEC qualifiers from a low participation neighbourhood achieving a first or upper second class honours compared to 66% of BTEC qualifiers from other neighbourhoods.

Figure 19 UK domiciled full-time first degree qualifiers by class of first degree, entry qualification and background demographics, 2015/16 to 2018/19 combined



Graduate Outcomes cohort

The HESA Graduate Outcomes survey was introduced for 2017/18 graduates and asked them detailed questions to provide an understanding of the graduate journey. Data was collected approximately 15 months after graduation via a survey undertaken at a centralised contact centre. In 2017/18, 52% of UK domiciled graduates responded to the survey.

Within the section regarding graduates from UK HE providers, references to IB CP graduates / BTEC graduates are meant to indicate UK domiciled graduates who achieved a full-time first degree at a UK HE provider and completed the Graduate Outcomes survey approximately 15 months after graduation, and who had entered HE with an IB CP qualification or BTEC qualifications, respectively.

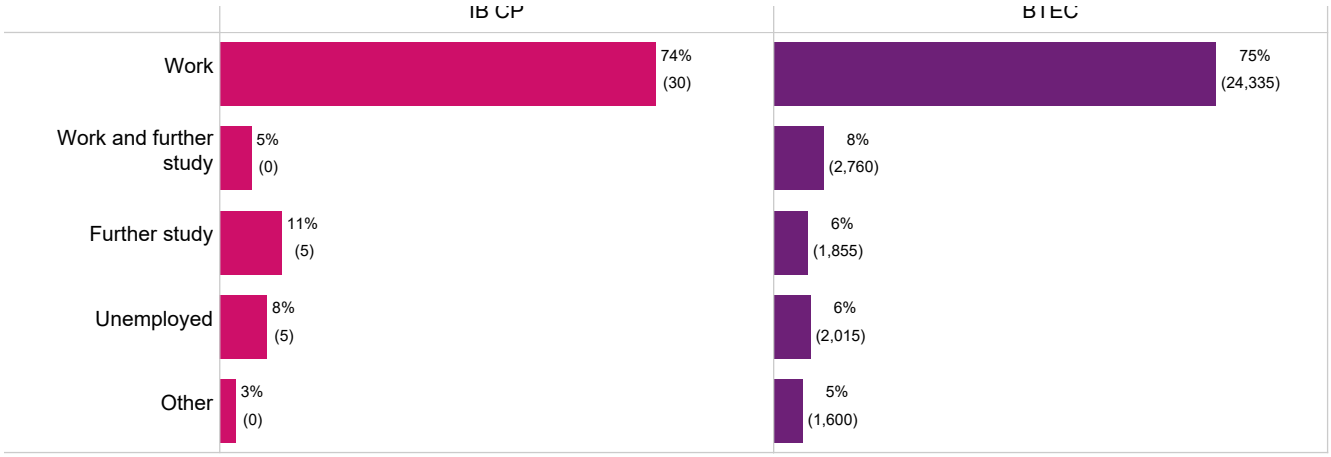
In 2017/18, there were 40 IB CP graduates and 32,565 BTEC graduates who responded to the Graduate Outcomes survey. Care must be taken when analysing activities of IB CP graduates due to small numbers.

Activities of graduates

Figure 20 shows the graduate's activity approximately 15 months after completing their studies. Graduates may be engaged in multiple activities on the survey date; in what follows, work refers to graduates in full-time or part-time work, excluding those undertaking both work and further study. Similarly, graduates in further study excludes those in work and further study.

A similar percentage of IB CP graduates (74%) and BTEC graduates (75%) were in work. A higher proportion of IB CP graduates (11%) were engaged in further study than BTEC graduates (6%).

Figure 20 UK domiciled full-time first degree graduates by entry qualification, domicile and activity, 2017/18



Due to the small numbers of IB CP course graduates, any analysis by subject area has been omitted.

Occupations and industries of employed graduates

As part of the Graduate Outcomes survey, graduates are asked to describe the type of jobs they are doing and the industry they are working in. This information is then analysed to derive the Standard Industrial Classifications (SIC) and Standard Occupational Classifications (SOC) of each graduate.

Figure 21 shows the industry of employment of IB CP and BTEC graduates. The most popular industries for IB CP graduates are split out, with the others grouped together. The chart shows that the industry which graduates are employed in varies between and within entry qualifications.

Figure 21 UK domiciled full-time first degree graduates entering employment by industry and entry qualification, 2017/18

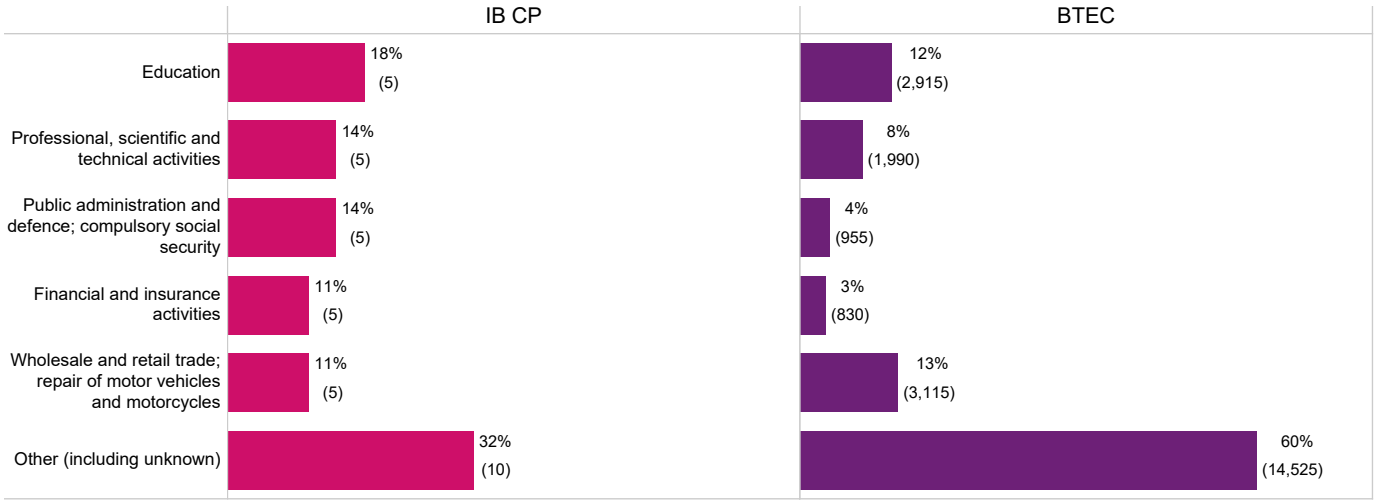
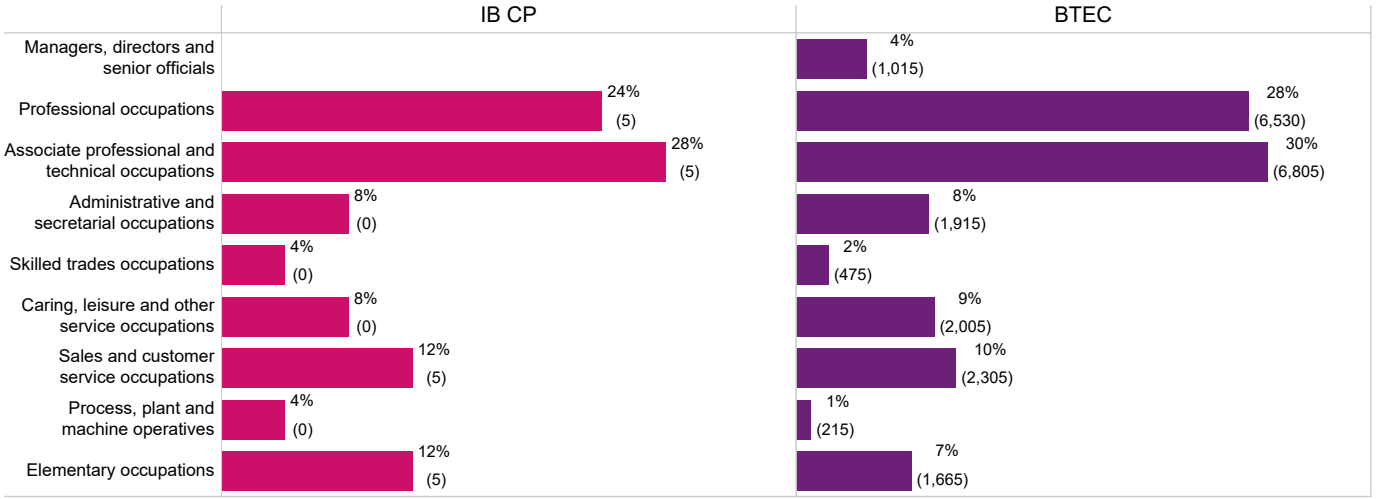


Figure 22 shows the occupations of IB CP and BTEC graduates. For both entry qualifications, over half of the graduates were employed in professional occupations or associate professional and technical occupations.

Figure 22 UK domiciled full-time first degree graduates entering employment by occupation and entry qualification, 2017/18[5]



[5] '0' figures in the chart show the HESA rounding strategy has been applied to the data (any number lower than 2.5 is rounded to 0).

Summary

Care should be taken when making comparisons between IB CP and BTEC students and identifying trends in analysis due to instances of small number of IB CP students, qualifiers and leavers.

Student cohorts

All students in the report were UK domiciled first year, full-time, students enrolled on a first degree course at a UK HE provider. The following summarises the findings for IB CP and BTEC students in 2014/15-2018/19 combined.

- Between 2014/15 and 2018/19, there were a total of 535 IB CP students identifiable in the HESA data. A small number of students (50) were identified in 2014/15, this increased in 2018/19 to 145. The number of IB CP students identifiable in the HESA data is far lower than their equivalent BTEC students. There were 87,505 BTEC students in 2014/15 increasing to 88,530 in 2018/19.
- 50% of IB CP students were female which was the same for BTEC students.
- Given the IB CP qualification was launched in the County of Kent, 58% of IB CP students were domiciled from the South East and 19% were domiciled from London. The remaining 23% were from different regions including the West Midlands (6%), Yorkshire and the Humber (6%), the North West (7%) and East of England (4%). BTEC students were more spread around the UK; London (18%) followed by the North West (14%), the South East (12%), the West Midlands (12%), Yorkshire and The Humber (10%), the East of England (8%), the East Midlands (7%) and the South West (7%).
- The majority of IB CP and BTEC students were white (IB CP 77%, BTEC 66%). A higher proportion of IB CP students came from a higher socio-economic background (classification 1-3), 55%, than BTEC students, 52%. A higher proportion of IB CP students were from a low participation neighbourhood, 29%, than BTEC students 17%.
- The most popular location of HE provider for IB CP students was the South East (45%), followed by London (18%), the North West (8%) and West Midlands (8%). Over three quarters of IB CP students chose to study in one of these regions. The most popular locations of HE provider for BTEC students were the North West (15%), London (13%), the South East (12%) and the East Midlands (12%).
- STEM subjects were more popular with BTEC students (43%) than IB CP students (39%). The most popular subjects of study for IB CP students were business & administrative studies, 18%, and biological sciences, 18%. The most popular subjects studied by BTEC students were business & administrative studies (16%) and creative art & design (16%).
- 11% of IB CP students left with no award after their first year of study compared to 9% of BTEC students.

Qualifier cohorts

All qualifiers in the report were UK domiciled and had successfully completed a full-time, first degree course at a UK HE provider. The following summarises the findings for IB CP and BTEC students in 2014/15-2018/19 combined.

- 70% of IB CP qualifiers achieved a first class or upper second class honours degree compared to 66% of BTEC qualifiers.
- The same proportion (64%) of IB CP and BTEC qualifiers who had studied a STEM subject at HE achieved a first class or upper second class honours degree. A higher percentage of IB CP qualifiers (73%) gained a first or upper second class honours compared to BTEC qualifiers (67%).

Graduate cohorts

All graduates in the report were UK domiciled and had successfully completed a full-time, first degree course at a UK HE provider and had completed the HESA Graduate Outcomes survey approx. 15 months later. The following summarises some of the findings for IB CP and BTEC leavers in 2017/18.

- A similar proportion of IB CP (74%) and BTEC graduates were in work (75%).
- A higher proportion of IB CP graduates (11%) were engaged in further study than BTEC graduates (6%).
- Of those in work by occupation type, over half of both IB CP and BTEC graduates were employed in professional occupations or associate professional and technical occupations.

Appendices

Definitions

Activity
Describes the activity of a graduate in the Graduate Outcomes survey. Work includes those who reported that they were in full-time employment, part-time employment, an unknown pattern of employment and voluntary or unpaid work. Work and further study includes those who indicated that they were in employment and further study. Further study includes those who were in full-time or part-time or unknown pattern of further study. Unemployed includes those who stated they were unemployed, due to start work or due to start further study. Other includes those who were taking time out to travel, caring for someone or retired.

BTEC students
BTEC students are those who hold a BTEC qualification on entry to HE. BTEC qualifications (Level 3) are offered in many schools and further education colleges around the UK and studied by 16-18 year-old students over two years. They are undertaken in a wide range of vocational subjects including business studies and engineering.

BTEC subject groupings
The below gives an indication of how BTEC subjects were grouped into the IB CP subjects.

Individuals and societies
- Business Studies
- Geography
- History
- Politics
- Social care

Languages
- English language
- English literature
- Various foreign languages

Mathematics
- Computing
- Accounting
- Engineering
- Statistics
- Mathematics

Sciences
- Chemistry
- Physics
- Biology
- Sports science
- Healthcare

The Arts
- Photography
- Drama
- Music
- Art and design

Classification of first degree
The class obtained from first degree qualifications. Certain qualifications obtained at first degree level are not subject to classification of award, notably medical and general degrees. These, together with ordinary degrees and aegrotat qualifications have been included within Unclassified. Third class honours, fourth class honours and the pass have been aggregated as Third class/pass. Lower second and undivided second class honours have been aggregated as Lower second class.

Continuation status
This has been created for full-time first degree entrants prior to 2018/19 who, where possible, have been linked forward to the next academic year.

Continuing or qualifying at HE provider- defined as all students who are progressing into their following year of study at the same HE provider and fall within the HESA student population. It also includes those students who are not progressing into their following year of study and who have achieved a qualification in one of the two comparison years with that qualification deemed as being equivalent to or higher than the qualification aimed for. Gained other award- Those students who are not progressing into their following year of study and who have achieved a qualification in one of the two comparison years with that qualification deemed as being lower than the qualification aimed for. Left with no award- Those students who are not continuing into their following year of study and have not been awarded a qualification in either of the two comparison years. Dormant- Those students who have not obtained an award and are not active or have dormant or writing-up mode.

Country/ Region of HE provider
The allocation of a HE provider to a geographical region is done by reference to the administrative centre of that HE provider. Regions in this context are the nine England Regions (formerly Government Office Regions) and Wales, Scotland and Northern Ireland. There may be students registered at HE providers who are studying in regions other than that of the administrative centre of the HE provider.

Domicile
Indicates the location of the student's permanent or home address prior to entry to the course. UK domicile students are those whose normal residence is in the UK, and for the purposes of this report includes Guernsey, Jersey and the Isle of Man. Other European Union domiciled students are those whose normal residence prior to commencing their programme of study was in countries which were European Union (EU) members as at 1 December of the reporting period. EU countries includes Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Gibraltar, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden. Where European Union countries are shown separately, individual country figures exclude those domiciled in the Åland Islands, the Canary Islands, and the French overseas departments of French Guiana, Guadeloupe, Martinique and Réunion. These figures are included in European Union not otherwise specified. Other Europe includes Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Cyprus (Non-European-Union), Faroe Islands, Georgia, Kosovo, Macedonia, Moldova, Monaco, Montenegro, Russia, San Marino, Serbia, Svalbard and Jan Mayen, Switzerland, Turkey, Ukraine, Vatican City and Europe not otherwise specified.

Ethnicity
Students domiciled in England, Wales, Scotland, Northern Ireland, Guernsey, Jersey and the Isle of Man are required to report their ethnic origin. Data on the ethnicity of students has therefore been restricted to UK domiciled students. The coding frame is that recommended by the Office for National Statistics (ONS) for UK-wide data collection.

White includes White, White - Scottish, Irish Traveller, Gypsy or Traveller, plus Other White background.

Black includes Black or Black British - Caribbean, Black or Black British - African, and other Black background.

Asian includes Asian or Asian British - Indian, Asian or Asian British - Pakistani, Asian or Asian British - Bangladeshi, Chinese, and other Asian background.

Other includes Arab, plus other ethnic background.

Mixed includes mixed - White and Black Caribbean, mixed - White and Black African, mixed - White and Asian, other mixed background

Not known includes not known and information refused. BME includes all non-white categories excluding not known.

First degree
First degrees (including eligibility to register to practice with a health or social care or veterinary statutory regulatory body), first degrees with Qualified Teacher Status (QTS)/registration with a General Teaching Council (GTC), enhanced first degrees, first degrees obtained concurrently with a diploma and intercalated first degrees.

Full-time students
Those normally required to attend an HE provider for periods amounting to at least 24 weeks within the year of study, on thick or thin sandwich courses, and those on a study-related year out of their HE provider. During that

time students are normally expected to undertake periods of study, tuition or work experience which amount to an average of at least 21 hours per week. For qualifiers and graduates this includes writing-up status where the mode of study was previously full-time and students changing to dormant status previously full-time.

Graduate Outcomes Survey
Graduate Outcomes collects information about the activities and perspectives of graduates approximately 15 months after they complete their HE studies.

Graduates are split into four cohorts depending on the date that they completed their studies. Each cohort covers a three-month span of the graduating academic year:

August – October

November – January

February – April

May – July

Graduates in each cohort are asked about activities that relate to a seven-day census week occurring approximately 15 months after the study completion period. For example, the 2017/18 survey (C17071), followed the following pattern:

Cohort A contains graduates who completed their studies from 1 August 2017 – 31 October 2017. These were surveyed between December 2018 and February 2019, with the questions stating the census week as the first week in December 2018.

Cohort B contains graduates who completed their studies from 1 November 2017 – 31 January 2018. These were surveyed between March 2019 and May 2019, with the questions stating the census week as the first week in March 2019.

Cohort C contains graduates who completed their studies from 1 February 2018 – 30 April 2018. These were surveyed between June 2019 and August 2019, with the questions stating the census week as the first week in June 2019.

Cohort D contains graduates who completed their studies from 1 May 2018 – 31 July 2018. These were surveyed between September 2019 and November 2019, with the questions stating the census week as the first week in September 2019.

Graduates awarded multiple qualifications which fall into different cohort periods within the academic year, are surveyed multiple times; with each survey relating to the specific qualification obtained within the relevant study-completion period.

The Graduate Outcomes quality report can be found here: **Graduate_Outcomes_Quality_Report_20200618.pdf (hesa.ac.uk)**

A history and background to the survey and information about the survey design is available in the methodology statement found here: **Graduate Outcomes methodology statement part two | HESA**

Further detail on approaches and standards for dissemination is available in the dissemination policy found here: **Graduate-Outcomes-dissemination-policy-v1-20200529.pdf (hesa.ac.uk)**

HESA Graduate Outcomes population
Contains all graduates from higher education reported to HESA as obtaining relevant higher education qualifications during the reporting period 01 August to 31 July, and whose study was full-time or part-time (including sandwich students and those writing-up theses).

HESA qualifiers population

A count of student instances associated with the award of an HE qualification (excluding HE institutional credits) during the HESA reporting period 1 August to 31 July. This includes qualifications awarded from dormant, writing-up and sabbatical status, but excludes incoming visiting and exchange students.

HESA student population
A count of the number of HE student instances active at a reporting HE provider in the reporting period 1 August to 31 July. Dormant students (those who have ceased studying but have not formally de-registered); incoming visiting and exchange students; students where the whole of the programme of study is outside of the UK; students on sabbatical, and writing-up students are excluded from the population.

Higher education (HE) students
Students on courses for which the level of instruction is above that of level 3 of the Qualifications and Curriculum Authority (QCA) National Qualifications Framework (NQF) (e.g., courses at the level of Certificate of HE and above).

IB qualification
International Baccalaureate (IB) students have been identified using data supplied by the International Baccalaureate Organization which has been linked to the HESA student data. Any student known to hold an IB qualification has been categorised as an IB student regardless of other qualifications they may hold. Any student that has been identified as holding Career-related Programme is included as a CP student. In addition, any students known to hold an IB according to the HESA student data have been categorised as an IB student. Those with a RESULT_CODE of 'K' are included as CP pass; those with a RESULT_CODE of 'J' are included as CP fail.

Level of study
This illustrates the study level undertaken by the student.

Low-participation neighbourhoods (POLAR4)
POLAR4 is based on the HE participation rates of people who entered a HE course in a UK higher education provider or English or Scottish further education college, aged 18 or 19, between academic years 2009-10 and 2013-14.

The POLAR4 classification is formed by ranking 2001 Census Area Statistics (CAS) wards by their young participation rates. This gives five quintile groups of areas ordered from '1' (those wards with the lowest participation) to '5' (those wards with the highest participation), each representing 20 per cent of UK young cohort. Students have been allocated to the neighbourhoods on the basis of their postcode. Those students whose postcode falls within wards with the lowest participation (quintile 1) are denoted as being from a low participation neighbourhood.

Rounding strategy
HESA implements a strategy in published and released tabulations designed to prevent the disclosure of personal information about any individual. This strategy involves rounding all numbers to the nearest multiple of 5. This rounding strategy is also applied to total figures, the consequence of which is that the sum of numbers in each row or column rarely matches the total shown precisely. Average values and proportions values prepared by HESA have been calculated on precise raw numbers. However, percentages calculated on populations which contain fewer than 22.5 FPE have been suppressed and represented as '..' as have averages based on populations of 7 or fewer. More information can be found here **https://www.hesa.ac.uk/support/definitions/students#rounding-and-suppression-strategy**.

Sex
This records the sex of the student. Other is included for students whose sex aligns with terms such as intersex, androgyne, intergender, ambigender, gender fluid, polygender and gender queer.

Socio-economic classification (SEC)
SEC is used to identify the socio-economic classification of students participating in HE. This data is compulsory for undergraduate students entering through UCAS. 'Not classified' is a valid code and includes students; occupations not stated or inadequately described and not classifiable for other reasons. Percentages are based on those students with classified known SEC data. In line with the Performance Indicators (http://www.hesa.ac.uk/pi), SEC data has been grouped into categories with examples (Office for National Statistics, 2010) : SEC 1-3: 1 Higher managerial and professional occupations (e.g., Solicitors, Architects, Medical practitioners , Chief executives, Economists 2 Lower managerial and professional occupations (e.g., Social workers, Nurses, Journalists, Managers and directors in retail and wholesale, Teaching professionals (Further education/ Secondary education/

Primary and nursery/ Special needs)) 3 Intermediate occupations (e.g., Paramedics, Nursery Nurses and assistants, Police officers (sergeant and below), Bank and post office clerks, Graphic designers SEC 4-7: 4 Small employers and own account workers (e.g., Farmers, Shopkeepers and proprietors – wholesale and retail, Taxi and cab drivers and chauffeurs, Driving instructors, Window cleaners) 5 Lower supervisory and technical occupations(e.g., Mechanics, Chefs, Train and tram drivers, Plumbers, Electricians 6 Semi-routine occupations (e.g., Receptionists, Shelf fillers, Care workers and home carers, Telephonists, Fitness instructors 7 Routine occupations (e.g., Bar staff, cleaners and domestics, Butchers, Bus and coach drivers, Van drivers) 8 Never worked and long-term unemployed 9 Not classified.

Standard Industrial Classification (SIC)
Describes the employing organisations of those HE graduates who were employed, using the UK Standard Industrial Classification of Economic Activities 2007 (SIC 2007). Standard industry codes for economic activity are used to describe the relationship between the inputs and outputs of such activity. In cases where multiple activities take place, classification usually relates to the single most important activity. In the case of DLHE statistics, this will usually be the most important activity undertaken by an employer (or self-employed person). Economic activities are measured by enquiring into the nature of an employer's (or self-employed person's) business.

Standard Occupational Classification (SOC)
Describes the types of job of those HE graduates who were employed, using the SOC2010 Standard Occupational Classification.

STEM subject marker
Identifies students studying in Medicine & dentistry; Subjects allied to medicine; Biological sciences; Veterinary science; Agriculture & related subjects; Physical sciences; Mathematical sciences; Computer science; Engineering & technology; Architecture, building & planning.

Non-STEM subject areas are: Social studies; Law; Business & administrative studies; Mass communications & documentation; Languages; Historical & philosophical studies; Creative arts & design; Education; Combined.

Subject areas/ FPE
Uses the Joint Academic Coding System (JACS) Version 3 subject coding frame (www.hesa.ac.uk/jacs3). Additionally, a procedure of apportionment is used. Under apportionment, each student instance is, where necessary, divided in a way that in broad-brush terms reflects the pattern of a split course. For split courses not involving an ITT component, institutions assign their own percentages based on a broad assessment of the relative contribution of subjects to a course, rather than detailed analysis of the contributions of subjects to individual students' courses of study. The recommended standard percentages are: 50% for each of the two subjects for balanced combinations; 67% and 33% for major – minor combinations and 34%, 33% and 33% for triple combinations. The sum of the percentages allocated to each subject studied on a course must equal 100%. 86 Initial Teacher Training (ITT) students at undergraduate level who also have specialism subjects recorded (typically, secondary ITT students) are apportioned 50% to the ‘Education’ subject area and the remaining 50% is further assigned according to the percentages recommended above. Where no subject other than education is recorded, or where the student is on a PGCE course, apportionment is 100% to the ‘Education’ subject area.

Year of study/ first year marker
First years includes those students who commenced their programme instance within the reporting period and is based on the HESA standard registration population. In some cases, the student's first year of study may be the second or subsequent year of a programme. All years includes all student instances regardless of their commencement date and is based on the HESA standard registration population.