

# Methodology document for calculating continuation rates at English higher education providers

## Introduction

1. This document provides information on the methodology used to calculate continuation, non-continuation and transfer rates at English higher education providers (HEPs) between the years 2010-11 and 2016-17. These values relate to full-time, UK-domiciled students at English HEPs undertaking undergraduate qualifications.
2. The data is presented in a number of ways. In addition to the overall sector-level continuation rates, interactive charts are provided that show continuation over time for a selection of student characteristics and higher education provision (both rates and benchmarked data). It is also possible to investigate two characteristics simultaneously for continuation of entrants in the academic year 2016-17.

## Continuation metrics and level of study

3. Continuation rates are now based on the student activity one year and 14 days after their start date. To align with this, the entrant year cohort is based on those students starting courses between 18 July and the following 17 July.
4. Undergraduate students who are still studying at the same provider on the census date, are studying at higher education level at another provider on the census date or who have qualified on or before the census date are described as having continued. All other students are described as non-continuers. Further details of the methodology, including those excluded from the calculations can be found in the document: Technical algorithms for institutional performance measures<sup>1</sup>.
5. For this release, two definitions of continuation rate are used:
  - a. Continuation rate – This measure represents any of the following outcomes; the student continued their studies, qualified or transferred to another higher education institution in the UK or further education college in England, studying at higher education level.
  - b. Continuation rate (excluding transfers) – For this measure, transfer rates are separated from the continuing and qualifying rates to show how transfer rates have also changed in recent years.

In both cases, the definition of non-continuation is the same; the student is no longer in higher education.

6. For all types of continuation, level of study is presented in three ways:

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<sup>1</sup> See <https://www.officeforstudents.org.uk/data-and-analysis/access-and-participation-data-dashboard/guide-to-the-access-and-participation-data-resources/>

- a. All undergraduate – all types of undergraduate qualifications. This is the same student population used to calculate Key Performance Measure 3<sup>2</sup>, which also concerns continuation rates.
  - b. First degree – undergraduate degrees, with or without a postgraduate component.
  - c. Other undergraduate – undergraduate higher education qualifications at a lower level than first degrees.
7. Throughout this release, counts are rounded to the nearest five and continuation rates and benchmark differences are rounded to the nearest 0.1. Additionally, in circumstances where the student characteristic or combination of student characteristics applies to less than 23 individuals, then neither the count nor rate is presented.

## Time series and benchmarking

8. As part of this release, continuation rates split by several different student characteristics and characteristics of higher education provision are presented as a time series for entrants in the academic years 2010-11 to 2016-17. Definitions of these different characteristics can be found in Table 1. Continuation outcomes for entrants in the academic year 2016-17 are the most recent for which this data is available as calculating these rates requires students to have completed their first year of higher education and their status in the following academic year to be assessed.
9. Benchmarking has been used to take into account factors that are known to influence continuation rates. The benchmark is a weighted sector average, it gives information about the values that might be expected for continuation if the characteristics included in the weighting are the only ones that are important. Where differences exist between the rate and the benchmark this will be due to some other characteristic which is not included in the weighting.
10. This benchmark is based on six factors: age at entry (broad), educational disadvantage (POLAR4), entry qualifications, ethnicity, level of study and subject of study, details of which can be found in Table 2. The changes document associated with this release (see [www.officeforstudents.org.uk/data-and-analysis/continuation-and-transfer-rates/how-the-data-has-changed/](http://www.officeforstudents.org.uk/data-and-analysis/continuation-and-transfer-rates/how-the-data-has-changed/)) describes how these benchmarking factors have changed compared with previous publications.
11. A full explanation of the benchmarking methodology can be found on the Higher Education Statistics Agency's website<sup>3</sup>. For these webpages, the difference between the actual rate and the benchmark is displayed, and statistical tests have been carried out to test if these differences are statistically significant<sup>4</sup>. Where a result is significant, this indicates that the difference is unlikely to be due to random variation alone. Where a

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<sup>2</sup> <https://www.officeforstudents.org.uk/about/measures-of-our-success/participation-performance-measures/gap-in-non-continuation-between-most-and-least-represented-groups/>

<sup>3</sup> [www.hesa.ac.uk/data-and-analysis/performance-indicators/benchmarks](http://www.hesa.ac.uk/data-and-analysis/performance-indicators/benchmarks)

<sup>4</sup> an alpha level of 0.05 on a single comparison (z=1.96) has been used to determine the statistical significance of the difference from the expected rate

difference is not flagged as significant, this does not mean that the difference doesn't matter, or that it is due to random variation alone, but it means that there is insufficient statistical evidence to say with any degree of certainty that the difference is not due to random variation.

12. One of the benchmarking factors used is qualification on entry. For this analysis, a new categorisation was devised following the 'Guiding principles for benchmarking factors'<sup>5</sup>, which allowed the number of categories to be minimised without losing information. Starting with an expanded version of the entry qualification groupings used by the TEF (TEFENTQUALGRP)<sup>6</sup>, the continuation rates of full-time UK-domiciled students undertaking undergraduate qualifications for the five-year period between 2012-13 and 2016-17 were clustered using Ward's minimum-variance method<sup>7</sup>. Using the continuation rate clusters as a guide, the grade profiles and student numbers were considered to produce 21 entry qualification categories (including both level 3 and HE qualifications), which can be found in Table 2.
13. In circumstances where the student characteristic of interest was one of the six benchmarking factors, if the characteristic were to be included as a benchmarking factor, no difference would be recorded between the observed and expected continuation rates. To account for this, when the characteristic of interest was one of the six benchmarking factors, it was removed and benchmarking was performed using only five factors. Additionally, adjustments had to be made for the following three characteristics found in Table 1, which were not directly used as benchmarking factors, but were related to characteristics that were used as benchmarking factors:
  - a. Age at entry (detailed) – This characteristic provides more detailed entry ages than the age at entry (broad) factor used in benchmarking but was produced using the same student information (Table 2), as such when investigating age at entry (detailed), age at entry (broad) was excluded from benchmarking.
  - b. Educational disadvantage (POLAR4) – For this characteristic the POLAR4 quintiles are kept separate but in benchmarking the quintiles are grouped into two categories (Table 2). As a result, when investigating education disadvantage (POLAR4), the grouped POLAR4 quintiles were excluded from benchmarking.
  - c. Entry qualifications (Broad level 3) – To increase the readability of the interactive charts, this characteristic includes only broad level 3 qualifications, but these are directly related to the entry qualification categories used in benchmarking. As such, for this characteristic the entry qualifications benchmarking factor was excluded.
14. For mature students, the benchmarking data for age at entry (broad) and educational disadvantage (POLAR4) are identical. This is because POLAR4 is only applied to young

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<sup>5</sup>[https://webarchive.nationalarchives.gov.uk/20180405115749/http://www.hefce.ac.uk/pubs/year/2017/CL\\_162017/](https://webarchive.nationalarchives.gov.uk/20180405115749/http://www.hefce.ac.uk/pubs/year/2017/CL_162017/)

<sup>6</sup>[https://www.officeforstudents.org.uk/media/c32f61aa-ceb7-4bbb-9f87-2cfc60f2bf89/tefyearfour\\_metricstechnicalalgorithmsandrebuildinstructions\\_revised20181219.pdf](https://www.officeforstudents.org.uk/media/c32f61aa-ceb7-4bbb-9f87-2cfc60f2bf89/tefyearfour_metricstechnicalalgorithmsandrebuildinstructions_revised20181219.pdf)

<sup>7</sup>[https://support.sas.com/documentation/cdl/en/statug/63347/HTML/default/viewer.htm#statug\\_cluster\\_sect012.htm](https://support.sas.com/documentation/cdl/en/statug/63347/HTML/default/viewer.htm#statug_cluster_sect012.htm)

students. Therefore, age at entry (broad): Mature is the same as educational disadvantage (POLAR4): POLAR4 mature. As such, when benchmarking age at entry (broad), age at entry (detailed) or educational disadvantage (POLAR4), both the factors age at entry (broad) and educational disadvantage (POLAR4) were removed from the benchmarking. Table 1 details the benchmarking factors used for each student characteristic.

## **Two-way splits of continuation rates**

15. The interactive charts included in this release allow continuation rates for the academic year 2016-17 to be split simultaneously by two of the 12 characteristics included in Table 1.

**Table 1. Definitions of student characteristics and characteristics of higher education provision**

<b>Characteristic</b>	<b>Categories</b>	<b>Definition</b>	<b>Notes</b>	<b>Benchmarking factors used</b>
<b>Age at entry (broad)</b>	Young Mature	As of 31 <sup>st</sup> August in the academic year of entry, if the student is under 21 they are considered young and if 21 and above they are considered mature.	Unknowns are grouped with young as age was unknown for only 110 students over the seven year period investigated (0% of population).	Entry qualifications Ethnicity Level of study Subject of study
<b>Age at entry (detailed)</b>	18 and under 19 20 21-25 26-30 Over 30	Age of student as of 31 <sup>st</sup> August in the academic year of entry.	Categories were selected by comparing continuation rates for all ages and clustering those for which continuation was similar. Data for unknown ages is not presented due to very small numbers (110 students over seven years).	Entry qualifications Ethnicity Level of study Subject of study
<b>Disability (broad)</b>	No reported disability Reported disability	Indicates whether student has reported as disabled.		Age at entry (broad) Educational disadvantage Entry qualifications Ethnicity Level of study Subject of study
<b>Disability<sup>8</sup> (detailed)</b>	No reported disability Cognitive or learning difficulties Mental health condition Multiple impairments Sensory, medical or physical impairments Social or communication impairment	Provides detail of the type of disability a student has reported with (if applicable).	Disability information is recorded on the basis of the student's own self-assessment. Changes in the number of students in this category may occur as a result of changes in data reporting. For a small number of students (1530 over seven years = 0.06% of population) the type of disability was unknown.	Age at entry (broad) Educational disadvantage Entry qualifications Ethnicity Level of study Subject of study

<sup>8</sup> Details of the data used to define these categories can be found here: <https://www.officeforstudents.org.uk/media/1b177289-43f8-41df-bad8-5eb8bab31acc/ofs-core-algorithms.pdf>

<b>Domicile location</b>	England Northern Ireland Scotland Wales	UK country of residence		Age at entry (broad) Educational disadvantage Entry qualifications Ethnicity Level of study Subject of study
<b>Educational disadvantage (POLAR4)</b>	Quintile 1 – lowest participation areas Quintile 2 Quintile 3 Quintile 4 Quintile 5 – highest participation areas	A measure of the proportion of the population that participates in HE <sup>9</sup> .	POLAR4 only applies to students under the age of 21. Those over 20 were grouped into 'POLAR4 mature' but this data is not presented as it is identical to age at entry (broad): Mature.	Entry qualifications Ethnicity Level of study Subject of study
<b>Entry qualifications (Broad level 3)</b>	A-levels A-levels and BTECs BTECs IB Other level 3 No recorded level 3	The type of level 3 qualifications possessed by the student.	In this characteristic, students are categorised based only on level 3 qualifications – if a student also has HE qualifications they are still categorised by their level 3 qualifications.	Age at entry (broad) Educational disadvantage Ethnicity Level of study Subject of study
<b>Ethnicity</b>	Asian Black Mixed Other White	Student ethnicity		Age at entry (broad) Educational disadvantage Entry qualifications Level of study Subject of study
<b>Index of multiple deprivation (IMD) 2015<sup>10</sup></b>	Quintile 1 – most deprived areas Quintile 2 Quintile 3 Quintile 4 Quintile 5 – least deprived areas	A measure of multiple deprivation of small areas.	This measure only applies to England domiciled students and data for non-England domiciled students is not presented.	Age at entry (broad) Educational disadvantage Entry qualifications Ethnicity Level of study Subject of study

<sup>9</sup> <https://www.officeforstudents.org.uk/data-and-analysis/polar-participation-of-local-areas/>

<sup>10</sup> <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015>

<b>Provider group</b>	Specialist providers Providers with high average tariff Providers with medium average tariff Providers with low average tariff Further education colleges and other higher education providers	Providers are grouped, primarily based on the average tariff score of their students.	Specialist higher education institutions were first identified (institutions where at least 60 per cent of provision is concentrated in one or two subjects), after which institutions were ranked by the average tariff score of their UK-domiciled, under-21, undergraduate entrants in the 2014-15 academic year and then grouped into thirds (high/medium/low).	Age at entry (broad) Educational disadvantage Entry qualifications Ethnicity Level of study Subject of study
<b>Sex</b>	Female Male	Indicates the sex of the student.	As a result of the small number of students registered as 'other sex' (520 over 7 years = 0.02% of the student population), this data is not presented.	Age at entry (broad) Educational disadvantage Entry qualifications Ethnicity Level of study Subject of study
<b>Subject of study<sup>11</sup></b>	Allied health subjects Business, law and architecture Creative arts and design Education and training Engineering and technology Humanities Medical and health sciences Natural sciences Social sciences	Subject studied, grouped using a condensed version of the Higher Education Statistics Agency Common Aggregation Hierarchy 2 <sup>12</sup> .		Age at entry (broad) Educational disadvantage Entry qualifications Ethnicity Level of study

**Note: 'unknown' categories are not shown in these webpages.**

<sup>11</sup> Details of how these subject groupings are defined can be found here: <https://www.officeforstudents.org.uk/data-and-analysis/access-and-participation-data-dashboard/guide-to-the-access-and-participation-data-resources/>

<sup>12</sup> <https://www.hesa.ac.uk/innovation/hecos>

**Table 2. Benchmarking factors categories**

<b>Factor</b>	<b>Number of categories</b>	<b>Description</b>
<b>Age at entry (broad)</b> (as at 31 <sup>st</sup> August in academic year of entry)	2	<ol style="list-style-type: none"> <li>1. Young (including unknown) – students under 21</li> <li>2. Mature – students 21 and over</li> </ol>
<b>Educational disadvantage (POLAR4)</b> (only applies to student under 21)	3	<ol style="list-style-type: none"> <li>1. POLAR4 quintile 1 or 2</li> <li>2. POLAR4 quintile 3, 4, 5 or unknown</li> <li>3. POLAR4 mature (students 21 and over)</li> </ol>
<b>Entry qualifications</b>	21	<ol style="list-style-type: none"> <li>1. HE degree</li> <li>2. Other HE qualification including foundation</li> <li>3. ACCESS</li> <li>4. IB</li> <li>5. A*A*A*A*-AAB</li> <li>6. AAC-BCC</li> <li>7. CCC-CDD</li> <li>8. DDD and below</li> <li>9. 2 A level and 1 BTEC</li> <li>10. 1 A level and 2 BTEC</li> <li>11. BTEC D*D*D*-DDD</li> <li>12. BTEC DDM-DMM</li> <li>13. BTEC MMM and below</li> <li>14. Lower graded BTEC</li> <li>15. Other level 3</li> <li>16. More than 115 tariff points</li> <li>17. 81-115 tariff points</li> <li>18. 66-80 tariff points</li> <li>19. 0-65 tariff points</li> <li>20. Other</li> <li>21. None or unknown</li> </ol>
<b>Ethnicity</b>	6	<ol style="list-style-type: none"> <li>1. Asian</li> <li>2. Black</li> <li>3. Mixed</li> <li>4. Other</li> <li>5. White</li> <li>6. Unknown ethnicity</li> </ol>



<b>Level of study</b>	4	<ol style="list-style-type: none"> <li>1. First degree</li> <li>2. Degrees including a postgraduate component</li> <li>3. Other undergraduate</li> <li>4. Other qualifications with a postgraduate component</li> </ol>
<b>Subject of study</b>	9	<ol style="list-style-type: none"> <li>1. Medical and health sciences</li> <li>2. Allied health subjects</li> <li>3. Engineering and technology</li> <li>4. Natural sciences</li> <li>5. Social sciences</li> <li>6. Business, law and architecture</li> <li>7. Creative arts and design</li> <li>8. Humanities</li> <li>9. Education and training</li> </ol>

## Contact us

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