Calculating student numbers for regulatory purposes

Overview of method

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Summary

1. This document accompanies the technical document 'Calculating student numbers: 20Y1-Y2 Technical document and rebuild instructions' ([www.officeforstudents.org.uk/data-and-analysis/student-number-data)](www.officeforstudents.org.uk/data-and-analysis/student-number-data), where Y1-Y2 represents the academic year the data relates to. It provides an overview of the algorithms presented in the technical document. Some detail is omitted, and the explanations are necessarily less precise than those in the technical document. The technical document, rather than this overview, should be regarded as definitive.

Background

2. The Office for Students (OfS) calculates student numbers for various regulatory purposes. These include setting registration fees and assessing applications for degree awarding powers and university title.

3. Our broad approach to these calculations has been established through consultation, by both the Department for Education and the OfS. In summary, our calculations are based on a measure of student activity, rather than a simple headcount. We express this in terms of full-time equivalence (FTE), where one FTE is equivalent to a single full-time student. For each provider, we measure FTE per academic year, using existing individualised data that providers have signed off as accurate. This FTE is categorised according to its level, and the result is used for various regulatory purposes. For example, the total higher education FTE will be used to calculate registration fees, and a comparison of higher education and further education FTE will be used to assess applications for university title.

4. Our intention is to arrive at an approach which is fit for purpose, but does not increase regulatory burden. This is why we base the method on existing data, which providers have submitted and signed off as accurate. In some cases, this data does not contain exactly the information we need in the form we need it, so we use derivations, approximations or proxies. We have aimed to do this throughout in a way that is reasonable and supports good decision making. If you are concerned that our method distorts your student numbers in a way that is material, you should raise this with us by emailing studentnumbers@officeforstudents.org.uk.

Terminology

5. Throughout this document, we refer to individuals as 'students', regardless of their level of study.

6. Student activity is recorded differently in the three data sources we use. In the Higher Education Statistics Agency (HESA) student return, activity is returned per student instance, where an 'instance' is a coherent engagement with the provider. In the HESA student alternative return, activity is returned in instance periods, an 'instance period' being a period of time within a student instance. In the Individualised Learner Record (ILR) supplied to the Education and Skills Funding Agency, student activity is returned by learning aim, which is broadly equivalent to a course. Throughout this document, we use the general term 'record' to refer to instances, instance periods and learning aims.

7. An academic year runs from 1 August to 31 July.

Description of the method

Data sources

8. We use individualised data from the HESA student record, the HESA student alternative record, and the Individualised Learner Record. We use the most recent year of data available. We only use data that providers have signed off as accurate. We use amended data for these purposes only when OfS has formally approved this use.

Exclusions

9. We use all records returned in our calculations, with the following exceptions:

Data source	Exclusion	Reason
ILR, HESA student, HESA student alternative	Records that ended before the academic year started, or which started after it ended.	The activity does not take place during the academic year.
ILR	Higher apprentices returned by providers that submit HESA data.	This activity is also recorded in the HESA data. It is removed to avoid double counting.
ILR	Students on higher education instances financed by Advanced Learner Loans returned by providers that submit HESA data.	This activity should also be recorded in HESA data. It is removed to avoid double counting.
HESA student	Records for students who are dormant or on sabbaticals.	These are not records of student activity.
HESA student alternative	Records that have been inactive for the reporting year.	These are not records of student activity.
HESA student, HESA student alternative	Students studying wholly overseas for the whole programme; incoming exchange students.	We do not hold the necessary data for students studying wholly overseas. We count outgoing exchange students rather than incoming.
ILR	Apprentice 'wrappers'.	These are not records of student activity.
ILR	Records closed to correct LEARNPLANENDDATE.	To avoid double counting as the new corrected record will record the relevant activity.
ILR	Records relating to subcontracted in provision.	We only count registered students.

Identifying higher education and further education records

10. Our approach to calculating FTE differs for higher education and further education records. So, our first step is to categorise a record as higher or further education. In broad terms, we treat activity as higher education if it aims for a qualification or credit higher than A-level standard.

11. In the HESA data, we identify higher education records using the COURSEAIM field. In the ILR data, we identify higher education records using the NotionalNVQLevelv2 field. Records that are not of higher education are treated as records of further education.

Calculating FTE for higher education records

12. We follow a three-step approach according to the data available.

1. When STULOAD is available (from either the HESA returns or the ILR returns) we use this as the measure of the activity associated with a record. We divide STULOAD by 100 to convert it to FTE.

2. When STULOAD is absent, we derive the activity associated with a record as follows:

   a. We find the expected hours of study for the course associated with the record, from the following sources (in descending order of preference):

      i. Total qualification time, in hours, from the Office of Qualifications and Examinations Regulation (Ofqual) Register of regulated qualifications.

      ii. Maximum guided learning hours, from the from the Ofqual Register of regulated qualifications.

      iii. Total credits, from the Ofqual Register of regulated qualifications – we convert credits into hours by multiplying by 10.

      iv. Total hours of the course, as stated in the course title listed on the Learning Aim Reference Service. Where there is a range of hours we take the highest value.

      v. Total credits associated with the course, as stated in the course title listed on the Learning Aim Reference Service. Where there is a range of credits we take the highest value.

   b. We find the expected length of the course from the learning start date and the learning planned end date.

   c. We divide the expected hours of the course by its expected length, to arrive at an average number of hours studied per day over its duration.

   d. We multiply this by an estimate of the days studied during the academic year, in order to estimate the total hours studied in the academic year. We cap this result so that it cannot exceed the total hours of study for the course.

   e. We convert this into an FTE by dividing it by 540.[1]

3. For a small number of higher education records, all from the ILR data, we cannot use the approaches above because we lack STULOAD and any information about the expected hours of study for the course. In these cases, we assign the record a value of 0.25 FTE.

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[1] We treat 540 hours of learning as approximately equivalent to 1 FTE. The Education and Skills Funding Agency, which is responsible for the ILR, uses either 540 or 450 as a threshold for full-time study, depending on the student's age. We have modelled the impact of both possible thresholds, and found that 540 gives a more credible result.

Calculating FTE for further education records

13. We follow a four-step approach, according to the data available and the source of this data.

1. For records from either of the HESA returns we use STULOAD as the measure of the activity associated with a record.

2. For records from the ILR we use planned learning hours where this information is available. We divide this by 540 to convert it to FTE. Planned learning hours record the total learning hours associated with a student, rather than a course.[2] For students who have a mixture of higher education and further education courses in the ILR, their planned learning hours will therefore include their higher education. To avoid inflating further education FTE, we therefore subtract the higher education FTE already calculated for the student from the FTE derived from planned learning hours.

3. Some records do not include planned learning hours. In these cases, we derive an FTE using expected hours of study for a course, as described in paragraph 12, step 2.

4. When STULOAD and planned learning hours are missing, and we have no information about the expected hours of study, we assign a proxy value of 0.1 FTE to each record.

14. Planned learning hours are not reduced for students who withdraw from their course earlier than planned. We recognise that as a result, step 2 of paragraph 13 above may slightly overstate the further education FTE for some providers.

Capping FTE

15. Some programmes of study have an intensity greater than 1 FTE. This is true, for instance, of accelerated degree programmes, which generally have an intensity of 1.5 FTE. We recognise this additional intensity up to and including 1.5 FTE. We do not count intensity above this point, as our review of the data suggests that this is generally due to peculiarities in the source data rather than reflecting additional activity.

16. In practice, this means that higher education FTE from the HESA student record is capped at 1.5 FTE per student instance. In the HESA student alternative data, an instance can include several levels of study and we need an FTE for each level to assess applications for degree awarding powers. We therefore cap higher education from the alternative provider student data at 1.5 per instance and level, where the levels in question are Level 4, Level 5, and Levels 6 and above. The ILR data does not contain a concept of instance, and it would not be effective to cap per record, as it is usual for a single student have multiple records. We instead implement the cap on higher education FTE per student and per level, where the levels in question are Level 4, Level 5 and Levels 6 and above. Further education FTE is capped at 1.5

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[2] More precisely, for '16-19 funded leaners', planned learning hours includes only hours spent on DfE approved qualifications. For other learners, planned learning hours include all planned timetabled contact hours for the learner for the year. A large majority of students returned in the ILR who have both further education and higher education learning aims are not 16-19 funded learners, which is why subtracting higher education FTE is appropriate.

FTE per student regardless of the source of data. Because we do not want to cap FTE unnecessarily, we have set the caps to be as permissive as they can while remaining effective.

Level of study

17. For applications for university title, we assess the proportion of the total activity at the provider which is higher education activity. We identify higher education records and further education records as described in paragraphs 10 and 11, and calculate the total and higher education FTE as described in paragraphs 12 to 16.

18. For applications for degree awarding powers, we assess the proportion of higher education delivered by the provider which aims for qualification or credit at Level 6 or above. For applications for foundation degree awarding powers, we assess the proportion of higher education delivered by the provider which aims for qualification of credit at Level 5 or above. Our understanding of levels derives from the Framework of higher education qualifications of UK degree-awarding bodies published by the Quality Assurance Agency for Higher Education[3] and Ofqual's Regulated qualifications framework.[4] We treat the latter as mapping directly to the former: for example, we treat both a bachelors' degree and a Level 6 BTEC as Level 6 qualifications.

19. From the HESA data we use COURSEAIM field to determine the level of higher education activity. From the ILR data we use the NotionalNVQLevelv2 field. The mapping of fields to levels is shown in the technical specification. The total FTE at each level is calculated using the method described in paragraphs 12 to 16.

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[3] Available at www.qaa.ac.uk/en/quality-code/the-existing-uk-quality-code/part-a-setting-and-maintaining-academic-standards.

[4] Further information about this framework is available at https://www.gov.uk/government/news/ofqual-to-introduce-new-regulated-qualifications-framework.