



Department
for Education

UK education related exports and transnational education activity, 2017

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Introduction

This technical document provides further information on the methodology used to calculate the revenue from education related exports and transnational education activities for 2017. Mostly, this is the same methodology used for the publication of revenue for education related exports and transnational education activities in 2016¹. Any changes from our previous methodology will be outlined in the text below. For brevity, the underlying figures used to obtain the overall figure have not been included. It is possible to calculate these figures using the steps outlined in the methodology.

Definitions of Exports and Transnational Education

Exports

Exports are transactions between UK residents and non-residents. In most of the transactions represented in this report, the non-residents travel to the UK to procure their education-related services from a UK-based organisation. Whether tuitions fees are paid in advance of arrival or once in the UK does not impact upon the nature of the transaction.

In addition to fees, any type of transaction that is carried out by the non-resident while in the UK also counts as international trade. Therefore, any money spent on living costs is counted as a UK export.

It should be noted that in our export statistics the full value of the transaction is counted as an export; no adjustment is made to subtract any costs involved in delivering the service, or in producing and shipping the goods overseas.

Transnational education (TNE) activity

Some UK-based organisations will have subsidiaries or long-term bases outside the UK from where they sell their services. In such situations, much of the initial value of transactions will flow out of the business into the local economy – local staff, rent, consumables, etc. – only the profit will be available to be repatriated to the UK.

Additionally, where there are operational profits these may be reinvested in the foreign operations rather than being repatriated. Unlike exports where the full value of the transaction is counted, here we only count the proportion of the revenue that is repatriated to the UK.

¹ <https://www.gov.uk/government/statistics/uk-revenue-from-education-related-exports-and-tne-activity>.

Data Sources

Summary

The data used to estimate education related exports and transnational education (TNE) activity are built up from many different data sources, most of which were not constructed for the purpose of estimating the export value of education services and products. This data varies in quality and in security of supply. The following sources of data have been used:

Official data sources

This includes data supplied by the Higher Education Statistics Agency (HESA) relating to, for example, international student numbers studying at Higher Education Institutions. It also includes visa application data from the Home Office. We have an understanding that the quality of this data is high and there is good reason to expect a continuation of supply.

Research evidence

Some of the figures rely on research evidence from a single study and on extrapolation of these figures to fill in gaps over time. The reports used are indicated where this is the case.

Market research from trade associations and representative bodies

These data are of varying quality and much of it is relatively new. As these organisations are often the sole source of such information it is not possible to obtain a complete understanding of the level of accuracy. Furthermore, some of the data is provided to the department through the good will of individual organisations and so there is a greater level of risk that data collection may be changed or discontinued in the future.

Publicly available data from private companies

This is the type of information published in annual reports and financial statements. In these instances, the data is not necessarily captured or presented for the purposes we are using them for so there are questions around the appropriateness of its use.

Changes in constant prices

These calculations are based on some data that is not regularly collected. In these instances, a GDP deflator has been applied to reflect the value in 2017 prices. The GDP deflators used are those published by the HMT.

Higher Education Institutions

Fee Income

Fee income data are compiled from the Higher Education Statistics Agency (HESA) finance data record².

Before 2016/17, EU (non-UK) fee income was estimated from the combined total of Home and EU domiciled student fees³ (separate totals were not collected by HESA). This was done according to HESA data on the proportion of students at each Higher Education Institution (HEI) who were UK and EU domiciled.

In 2016/17, HEIs in England and Wales started to report fee income data for Home and EU domiciled students separately and this data feeds directly into our estimates. At the time of the 2016 release, HEIs in Scotland and Northern Ireland continued to report combined Home and EU domiciled fees to HESA, as such, we continued to estimate EU domiciled fee income for these countries using the same methodology as previous years.

Since last year's 2016 publication, separate EU domiciled fee data from HEIs in Scotland and Northern Ireland has become available for 2016/17 and 2017/18. As such, the 2017 publication now uses HESA finance data on EU tuition fees directly for all HEIs without further calculation, for consistency we have also restated the 2016 estimate to reflect the revisions in the 2016/17 fee data. This change has the following impact on our 2016 estimates:

Estimated EU domiciled Fee Income 2016

	2016 original estimate	2016 new estimate	Difference
EU Fees	£810m	£840m	+£30m
(Cost to Gov't of tuition fee loans)	(£250m)	(£260m)	+£10m

HESA record the aggregate value of fees at Higher Education Institutions (HEIs) for non-EU domiciled students. These values have been used without further calculation.

² HESA Finance Record - <https://www.hesa.ac.uk/data-and-analysis/providers/finances/>

³ HESA reported Home and EU domiciled fees combined – it did not separate fees paid by UK students and EU (non-UK) domiciled students.

Scholarships

Since scholarships are publicly funded the value of awards to non-EU students has been subtracted from overall fee income. The following scholarships have been included in these calculations:

- Chevening⁴
- Commonwealth Scholarships⁵
- Marshall Scholarships⁶

Cost to government of fee loans

EU students can access student loans for fees. The proportion of these loans that are not paid back is subtracted from the fee income as this value is funded by Government. DfE does not estimate the proportion of the value of fee loans to EU students. The RAB charge for all higher education student loans is currently estimated to be around 40-45%. This figure is multiplied by undergraduate EU fee income to give a high level estimate of the RAB charge to government.

Living expenditure

Weekly living costs for EU and non-EU domiciled students are estimated using the Student Income and Expenditure Survey (SIES). For 2017/18, the average weekly living costs are derived from the ad-hoc release published in support of the Post-18 Review of Education⁷.

The calculation for average weekly living costs is derived from the mean cost of a full time student living away from home in an academic year (39 weeks).

The annual living cost is calculated by multiplying the average weekly cost by the length of stay in the UK, this is assumed to be:

- 39 weeks for undergraduate EU students (it is assumed they are more likely to travel to their country of origin during the holidays)
- 42 weeks for undergraduate non-EU students (it is assumed they are less likely to travel to their country of origin during the holidays)

⁴ FCO Annual Reports: <https://www.gov.uk/government/organisations/foreign-commonwealth-office>.

⁵ Annual reports of the Commonwealth Scholarship Commission. Scholarship expenditure is estimated as total programme expenditure minus 'other programme expenditure'.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/764548/CS-report-annual-report-2018.pdf.

⁶ Annual reports of the Marshall Aid Commemoration Commission.
<https://www.gov.uk/government/publications/sixty-fifth-annual-report-of-the-marshall-aid-commemoration-commission>.

⁷ <https://www.gov.uk/government/publications/post-18-review-of-education-and-funding-supporting-statistics>

- 52 weeks for postgraduate students (reflects the longer course duration)

The number of students split by full-time/part-time, EU/non-EU, undergraduate/postgraduate in each year is taken from the HESA student record. These numbers are then multiplied by the course length (weeks) and by the weekly living costs to allow a calculation of the aggregate level of living costs for EU and non-EU students.⁸

Erasmus+

Statistics on the number of Erasmus+ students coming into the UK are published by Eurostat⁹. Higher Education students who study in the UK under the Erasmus+ scheme do not pay fees to the UK institution but to the partner institution in their country of origin. The only contribution included in calculations for Erasmus+ students is therefore living expenditure. It is assumed that all Erasmus+ students are full time, undergraduate students studying for 39 weeks.

Research and other contracts

The value of research grants and contracts split between UK and international sources are captured through data HEIs return to HESA¹⁰. This incorporates export income from academic departments' research grants and contracts, academic services and administrative/central services.

International Intellectual Property income

Information on the total value of HE Intellectual Property (IP) revenue comes from the Higher Education - Business and Community Interaction survey (HE-BCI)¹¹. This provides data on the total (domestic and international) income from IP.

To estimate the proportion of HE income from IP that is exported, the estimate from London Economics research is used¹². London Economics took data on the total revenue and export revenue for the R&D sector in 2008. They found that 38 per cent of the R&D sector revenue was generated through exports. It is assumed that this same proportion can be applied to the education sector.

⁸ For part time students there is an assumption that they will stay for the same number of weeks in the UK as a counterpart full time student, but they will also be working. However, the estimated employment income earned in the UK is not subtracted from the living expenditure because it does not agree with the standard practice for calculating exports. See last year's estimate for more detail: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/630741/UK_Revenue_from_Educational_Exports_2010-14.pdf/.

⁹ https://ec.europa.eu/programmes/erasmus-plus/about/factsheets_en.

¹⁰ HESA Finance Record - <https://www.hesa.ac.uk/data-and-analysis/providers/finances/>

¹¹ <http://www.hefce.ac.uk/ke/hebcj/>.

¹² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32395/11-980-estimating-value-of-education-exports.pdf.

Other overseas income

This is calculated using London Economics' research¹³, which conducted a survey of Tier 4 sponsors. HEIs responding to questions on income sources were also asked about any income that they earn from an overseas source that is not covered elsewhere. It is therefore not clear what is covered in this category. Results were grossed up from 14 responses to the population of 165 HEIs, suggesting a high level of uncertainty in these estimates. London Economics estimated £61.6 million of HE income from other sources in 2008/09.

The growth rate over the 2004/05 to 2008/09 period was calculated by London Economics to be 12.3 per cent. This was carried forward to future values.

Further Education

The number of international students in Further Education (FE) has been estimated using Home office visa application data¹⁴. This data is only submitted by non-EU applicants, and therefore does not include the number of EU students studying at FE providers. This means our figures will not fully capture this component of the value of education exports.

The volume figures are revised downwards to reflect the number of applications that are granted. This is estimated based on the proportion of Tier 4 applications granted, which will include students in other education sectors, not just FE¹⁵.

An estimated 98 per cent of visa applications were granted. Using this method, approximately 14,500 non-EU students were estimated to be studying at FE colleges in 2017.

Fee expenditure

The average value of tuition fees for international FE students is estimated using a survey conducted by the Association of Colleges¹⁶.

Living expenditure

It is assumed that the weekly living expenditure for FE international students is the same as for HE students. The course duration is assumed to be 36 weeks.

Other income

¹³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32395/11-980-estimating-value-of-education-exports.pdf.

¹⁴ In 2016 14,586 visa applications were sponsored by tertiary, Further education or other colleges <https://www.gov.uk/government/collections/immigration-statistics-quarterly-release>, sponsorship tables.

¹⁵ In 2018 an estimated 97% of 'Tier 4 – general student (main applicant)' visa applications were granted. See <https://www.gov.uk/government/statistics/immigration-statistics-year-ending-december-2018>.

¹⁶ <https://www.aoc.co.uk/system/files/AoC%20International%20Survey%20Report%202018.pdf>.

This estimate is based on a London Economics' survey of Tier 4 sponsors. FE colleges were asked to state what other income they receive that is not covered elsewhere. The responses of 21 providers (out of 429) have been scaled up to represent the whole sector.

It is difficult to identify what has been included in other income, as institutions have not specified.

Independent Schools

These estimates are based on the Independent Schools Council (ISC) Annual Census¹⁷. This provides estimates of the number of EU and non-EU students studying at member schools.

Since not all EU and non-EU students study at ISC member schools, Department for Education data on independent schools¹⁸ has been used together with ISC data to identify the number of non-UK students studying at British Independent Schools.

Based on ISC data, 93 per cent of students are identified as boarders. Using this figure, it is possible to estimate the course fees and living expenditure of international students studying at independent schools.

No estimate for the value of living expenditure for day pupils has been produced as there is no appropriate data source for this information.

English Language Training

All estimates for the value of English Language Training (ELT) in the UK are obtained from the Study Travel Magazine, which publishes a Global Market Report each year¹⁹. This report estimates the revenue generated (from tuition fees and living expenditure) by ELT in the UK²⁰. It is assumed that all ELT delivered in the UK will be for international students, so all revenue can be counted as an export.

The ELT market is made up of public and private providers. In 2012, 80 per cent of ELT providers were private providers, the remainder were public providers. As such, the Global Market Report revenue figure for the UK has been reduced by 20 per cent to reflect the risk of double counting public providers in FE estimates.

¹⁷ <https://www.isc.co.uk/research/annual-census/>.

¹⁸ <https://www.gov.uk/government/collections/statistics-school-and-pupil-numbers>.

¹⁹ <https://studytravel.network/magazine/issues/789/articles/26156>

²⁰ In 2017, Study Travel Magazine survey estimated UK revenue from the English Language market was \$2,536,136,568, which is £1,951,550,496 (using the survey's quoted of exchange rate £0.769 to the dollar).

Education Products and Services

Education related publishing

Education related publishing covers school, ELT and academic and professional books that are published and exported overseas, either physically or digitally.

The Publishing Association (PA) collects data on the sales of members and non-members. This data is scaled up to produce an estimate for the whole sector.

Education related equipment

Education-related equipment includes either physical products or software supplied to customers in the education sector. This data is collected through a survey by the British Educational Suppliers Association (BESA).

Education related broadcasting

These estimates are based on publicly available figures from annual reports from the BBC, Channel 4 and the Open University. These broadcasters account for the majority of education-related broadcasting.

Using annual accounts and OFCOM reports, it is possible to estimate education related broadcasting revenue. A London Economics report assumes that 10 per cent of this broadcasting revenue is from exports. This figure has been applied to calculate the revenue repatriated to the UK from education related broadcasting.

Transnational Education Activity

Higher Education

The number of HE TNE students enrolled at UK institutions overseas can be identified from HESA aggregate Offshore Records (AOR).

The Department for Business, Innovation and Skills (BIS) conducted research in 2012/13 looking at the average student revenue from HE TNE students²¹. The estimates for HE TNE have been produced by multiplying the average revenue figures by TNE enrolments for 2017²².

Further education

The estimates for TNE income for FE colleges is based on a London Economics Survey of Tier 4 sponsors. This estimate was based on a small number of responses

²¹ BIS Research Paper on the value of TNE.

(https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387910/bis-14-1202-the-value-of-transnational-education-to-the-uk.pdf).

²² 2017 figures are calculated by weighting 16/17 and 17/18 academic years.

(23) and scaled up to represent the sector. A GDP deflator has been applied to estimate the value in 2017.

Schools

We are currently reviewing this figure and the methodology behind it, as such our estimate has a significant level of uncertainty associated with it. In a change to the previous years, we have uplifted last year's total revenue received by schools who deliver some part of the curriculum to students outside an English-speaking country by inflation and converted to sterling, using rates published by HMRC. As before, an arbitrary 10 per cent of the revenue from these activities is estimated to be repatriated to the UK. This proportion is not based on any empirical evidence.

English Language Training

This figure is based on accounts published by the British Council and Pearson, who report on the income generated from activity that develops a wider knowledge of the English Language. It is assumed that 10 per cent of the income generated from ELT overseas activity from the British Council and Pearson is repatriated to the UK.

Experimental Statistics

These estimates are experimental statistics since they are still to be fully developed and rigorously tested to ensure they meet the required standard for national statistics. This is because the data used to compile these estimates come from multiple sources, some with varying quality or limited coverage. In other areas we have had to make assumption where there is very little empirical evidence to draw on. These are indicated in the explanation above.

Particular areas where the data is presently incomplete include: data on exports from privately funded providers (so-called 'Alternative Providers'); income from EU students attending Further Education Colleges; income from on-line education-related courses; and fees collected from visas granted to individuals coming to the UK from outside the EU for the purposes of study.

DfE is committed to improving the quality of these statistics over time. To improve the quality and meet our commitment, we are reviewing our methodology internally. At the same time, we are working with other government departments and engaging with the sector to explore ways we can work together to improve the quality of the statistics. This will meet our action laid out in the International Education Strategy to provide a clearer picture of exports activity by improving the accuracy and coverage of our published data (action 5)²³.

²³ <https://www.gov.uk/government/publications/international-education-strategy-global-potential-global-growth/international-education-strategy-global-potential-global-growth>

As improvements are best made by publishing the data and opening up the discussion with data users, we would welcome feedback on the usefulness of the statistics and on the methodology we have used to produce them. We would also welcome ideas for appropriate data sources which could be used to assess the value of exports in these areas and suggestions on additional areas, outside of those already identified, which might contribute to the overall value of education-related exports.

Aspects which we would like to consider further during the experimental statistics phase include:

- *coverage* – bringing in sectors currently excluded due to data quality concerns or lack of data
- *accuracy* – refining the assumptions used to improve our overall estimates
- *explanation* – better communication of the limitations of the data sources used
- *consistency* – with other statistics on exports and imports; and
- *presentation* – publishing the data in the right format to meet user needs

Contact Details and Feedback

As these statistics are currently experimental we welcome feedback on the methodology and definitions used. Please contact Caitlin Brown, Higher Education Analysis Team, Department for Education: caitlin.brown@education.gov.uk