



Department
for Education

UK education related exports and transnational education activity, 2016

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Contents

Introduction	3
Definitions of Exports and Transnational Education	3
Data Sources	4
Higher Education Institutions	5
Further Education	9
Independent Schools	10
English Language Training	11
Education Products and Services	12
Education related publishing	12
Education related equipment	12
Education related broadcasting	12
Transnational Education Activity	13
Higher Education	13
Further education	13
Schools	13
English Language Training	13
Experimental Statistics	14
Contact Details and Feedback	14

Introduction

This technical document provides further information on the methodology used to calculate the revenue from education related exports and transnational education activities for 2016. Mostly, this is the same methodology used for the publication of revenue for education related exports and transnational education activities 2015¹. 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-2015>.

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. The data vary in their quality and in their 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. For these we have an understanding that the quality of the 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 rely on extrapolation 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 not necessarily captured or presented for the purposes we are using them for so there are questions around the appropriateness of using these data.

Changes in constant prices

The calculations have been based on some data that is not regularly collected. In these instances, a GDP deflator has been applied to reflect the value in 2016 prices. The GDP deflators used are those published by 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. However, HEIs in Scotland and Northern Ireland continued to report combined Home and EU domiciled fees to HESA, meaning we have continued to estimate EU domiciled fee income for these countries using the same methodology as previous years.

The table below outlines total estimated EU domiciled fee income at UK HEIs from 2009/10 and 2016/17⁴. There is a larger than usual jump from 2015/16 to 2016/17. This £200m increase is partly explained by higher EU domiciled student numbers and the undergraduate fee cap increase from £9,000 to £9,250. However, these reasons alone are unlikely to account the full increase. Initial analysis suggests that the methodology for estimating EU fee income (prior to 2016/17 and used for Scotland and Northern Ireland in 2016/17) has historically underestimated the actual figure. We will the magnitude of this methodological issue in future publications.

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.

⁴ The EU fee income figures in “UK education related exports and transnational education activity, 2016” are reported by calendar year. These are calculated by weighting the figures outlined in the table below.

Estimated EU domiciled fee Income

UK HEIs - 2009/10 to 2016/17

Academic Year	Fee Income
2009/10	£340m
2010/11	£380m
2011/12	£400m
2012/13	£490m
2013/14	£600m
2014/15	£680m
2015/16	£750m
2016/17	£950m

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.

Scholarships

Since scholarships are publically 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:

- Chevening⁵
- Commonwealth Scholarships⁶
- Marshall Scholarships⁷

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

⁵ FCO Annual Reports: <https://www.gov.uk/government/organisations/foreign-commonwealth-office>.

⁶ Annual reports of the Commonwealth Scholarship Commission. Scholarship expenditure is estimated as total programme expenditure minus 'other programme expenditure'.
<https://www.gov.uk/government/organisations/commonwealth-scholarship-commission-in-the-uk>.

⁷ Annual reports of the Marshall Aid Commemoration Commission.
<https://www.gov.uk/government/organisations/marshall-aid-commemoration-commission>.

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%.

Living expenditure

Weekly living costs for EU and non-EU domiciled students are estimated using the Student Income and Expenditure Survey (SIES) for 2014/2015. For 2016/17 the average weekly living costs are adjusted to reflect changes in the Consumer Price Index⁸.

The calculation for average weekly living costs is based on micro-data analysis which excludes students who live with their parents. This has been done to better reflect the costs of international students.

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)
- 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.⁹

Erasmus+

Statistics on the number of Erasmus+ students coming into the UK are published by Eurostat¹⁰. 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+

⁸ An estimate of the living costs in academic year 2016/17 is needed to be able to estimate living expenditure for calendar year 2016.

⁹ 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/.

¹⁰ https://ec.europa.eu/programmes/erasmus-plus/sites/erasmusplus2/files/erasmus-plus-factsheet-2016-uk_en.pdf.

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 HESA¹¹. 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)¹². 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 used¹³. 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.

Other overseas income

This is calculated using London Economic research¹⁴, 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.

¹¹ HESA Finance Record - <https://www.hesa.ac.uk/data-and-analysis/providers/finances/>

¹² <http://www.hefce.ac.uk/ke/hebcj/>.

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

¹⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32395/11-980-estimating-value-of-education-exports.pdf.

Further Education

The number of students to Further Education (FE) has been estimated using Home office visa application data¹⁵. 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 FE¹⁶.

In 2016, 94 per cent of visa applications were granted. Using this method approximately, 13,900 non-EU students were estimated to be studying at FE colleges in 2016.

Fee expenditure

The average value of tuition fees for international FE students is estimated using research conducted by the Department for Business, Industry and Skills on Tier 4 international students¹⁷. A GDP deflator is applied to these estimates to calculate the figure for current prices.

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

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.

¹⁵ 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.

¹⁶ In 2015 an estimated 96% of 'Tier 4 – general student (main applicant)' visa applications were granted. See <https://www.gov.uk/government/collections/immigration-statistics-quarterly-release>, volume 1.

¹⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/182049/13-767-evaluation-of-value-of-tier-4-international-students-to-fe-colleges-and-uk-economy.pdf.

Independent Schools

These estimates are based on the Independent Schools Council (ISC) Annual Census¹⁸. 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 schools¹⁹ 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.

¹⁸ <https://www.isc.co.uk/research/annual-census/>.

¹⁹ <https://www.gov.uk/government/collections/statistics-school-and-pupil-numbers>.

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 year²⁰. This report estimates the revenue generated (from tuition fees and living expenditure) by ELT in the UK²¹. 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.

²⁰ <http://www.studytravel.network/magazine/online/december2017>.

²¹ In 2016, Study Travel Magazine survey estimated UK revenue from the English Language market was \$2,750,039, which is £1,927,114 (using the survey's quoted of exchange rate £0.670 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). The survey does not cover the whole sector, so the responses are scaled up using market analysis of significant non-BESA members.

Education related broadcasting

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

Using annual accounts, 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 students²². The estimates for HE TNE have been produced by multiplying the average revenue figures by TNE enrolments for 2016²³.

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 (23) and scaled up to represent the sector. A GDP deflator has been applied to estimate the value in 2016.

Schools

International School Consultancy Research provides data on schools who deliver some part of the curriculum to students outside an English speaking country. 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.

²² 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).

²³ 2016 figures are calculated by weighting 15/16 and 16/17 academic years.

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.

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 Luke Came, Higher Education Analysis Team, Department for Education: luke.came@education.gov.uk



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