Article

Methodological improvements to UK education services exports

This article outlines methodological improvements that the Office for National Statistics is making to education services exports estimates within national accounts based on a review of available data sources and international best practice.

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1 . Main changes

- In the Pink Book (PB) 2022, changes were made to our estimates of exports for education-related travel, where non-resident students travel to the UK to study, as part of regular updates within our continuous improvement programme; this includes methodological improvements to the International Passenger Survey weighting process and adjustments made through the detailed annual Supply and Use reconciliation process.

- For example, in 2019, estimates of education-related travel exports were revised up by £3.1 billion in the PB 2022 compared with the 2021 publication.

- For education non-travel, where non-resident students undertake studies with UK institutions while residing outside the UK, improvements in data sources were made to transnational education estimates for the PB 2022.

- In the PB 2023, the Office for National Statistics (ONS) will introduce administrative data sources for measuring exports of education-related travel, following a review of available data sources and international best practice.

2 . Overview of UK education services exports

The recently published International Education Strategy highlights the UK's strong global presence and reputation in international education markets. The UK offers a wide range of courses at prestigious institutions, which include higher education, further education, schools, and English language training.

Education services exports are the expenditure of non-resident students taking courses with UK institutions. Given the UK is a large exporter of education services, it is important to capture this in our trade statistics and continue to review and improve our methods.

International trade in services is the provision of services by residents of an economy to non-residents. The Manual on Statistics of International Trade in Services (MSITS) 2010 (PDF, 3.36MB) provides guidance on how trade in services should be recorded, including the 2010 Extended Balance of Payments Services Classification (EBOPS 2010). The MSITS provides the following definition for education services (paragraph 3.302):

"Total education services combine international transactions relating to the provision of education services. It includes the provision of all levels of education through distance teaching, teaching services provided directly in the host economies and education services provided to non-residents who are present in the territory of the service provider."

Education services appear both under travel and personal, cultural, and recreational services in the MSITS EBOPS 2010 classification.

Travel differs from most other EBOPS 2010 categories because it is not a specific product but includes expenditure by non-residents on a range of goods and services in the economy they visit. Education services are classed as travel if a non-resident visits another economy to receive the education services. Therefore, UK exports of education-related travel services, where non-residents travel to the UK to study, include tuition fees plus other expenditure incurred while in the UK, for example spending on food, accommodation, and local transport.

Other education services provided to non-residents, where they do not travel to the UK to participate, are labelled as non-travel and are recorded under personal, cultural, and recreational services. This includes:

- education services where no travel is required by either the service provider or recipient, for example, courses provided over the internet

- education services where the education provider travels to the non-residents' economy to deliver the education services

3 . Pink Book 2022 improvements

Education services exports: travel

Current method

Education-related travel exports include the tuition fees of the course attended in the UK by a non-resident plus other expenses incurred while they were in the UK.

Currently, Office for National Statistics (ONS) estimates for education-related travel are based on the International Passenger Survey (IPS) with an adjustment made for tuition fees from the Higher Education Statistics Agency (HESA). However, HESA data only cover higher education (HE) tuition fees. Although HE is the largest contributor to tuition fees, other types of education, such as schools, further education, and English language training, are provided in the UK to non-residents that are not currently accounted for within tuition fees.

HESA financial records were introduced in the Pink Book (PB) 2017 following comparisons between HESA and IPS data that suggested the IPS was underestimating HE tuition fees. The cause of this could have been a number of reasons associated with this type of survey data collection, for example, sampling and estimation methods or the reliance on students recalling their expenditure when departing from the UK.

Other non-tuition expenses such as accommodation and food are supplied by the IPS. The IPS: quality information in relation to migration flows provides more detail on IPS methodology, including its limitations, and the Travel and tourism review: final report outlines ONS plans for improving travel-related statistics in the future.

Methodological improvements

As part of regular updates to our continuous improvement programme, changes were made in the PB 2022 publication. These changes include:

- methodological improvements to the IPS weighting process

- a review of education exports within the Supply and Use reconciliation process

Methodological improvements were made to the travel and tourism estimates from the IPS, related to the survey's weighting process. The new method uses Home Office landing card data to inform these changes and addresses concerns raised by users that visitors from some countries may be under-represented in the estimates, notably China and Southeast Asia.

The Supply and Use reconciliation process incorporates the components of the three approaches to measuring gross domestic product (GDP) at a detailed product and industry level to enable a single estimate of GDP to be determined. Further information on Supply and Use tables is provided in Section 6 of A guide to the UK National Accounts: March 2020.
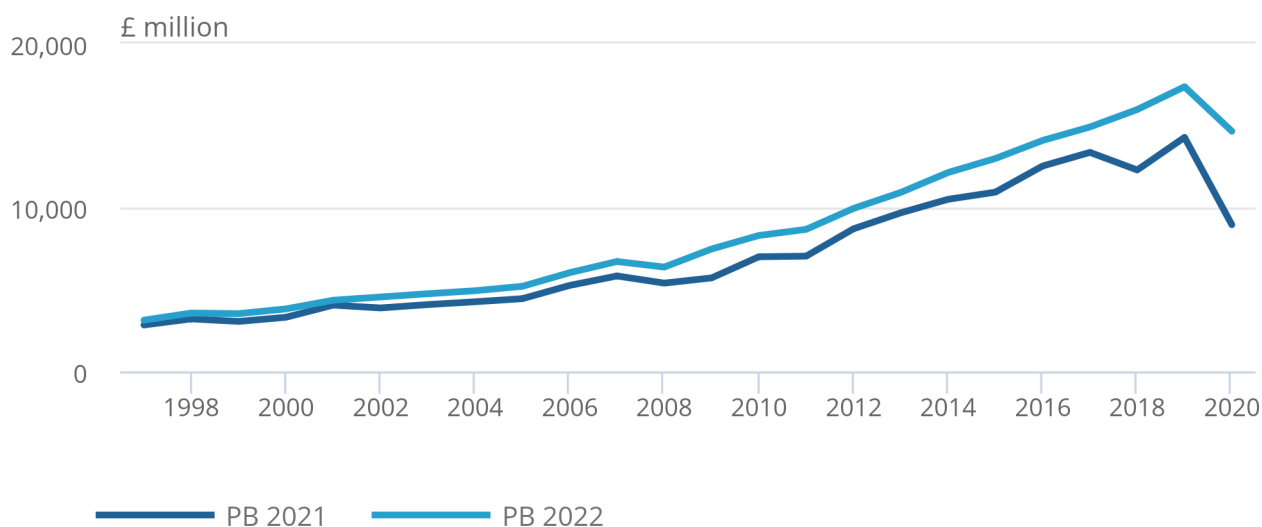
Impacts

The result of this methodological change is to revise up estimates of education-related travel exports. Estimates for 2019, for example, rose by £3.1 billion to £17.4 billion compared with PB 2021 estimates, as a result of the IPS weighting improvements and reviewed Supply and Use balancing. A time series of ONS PB 2021 and PB 2022 estimates of education-related travel exports is shown in Figure 1.

Figure 1: ONS estimates for education-related travel exports

Education-related travel exports, UK, 1997 to 2020

Figure 1: ONS estimates for education-related travel exports

Education-related travel exports, UK, 1997 to 2020

Source: Office for National Statistics – UK Balance of Payments, The Pink Book

Education services exports: non-travel

Non-travel-related education services exports include expenditure on courses provided by UK institutions to students that reside overseas through distance teaching or through teaching provided directly in host economies.

For the non-travel component of education services exports, we have introduced improved estimates for the PB 2022. Outdated sources have been replaced with data for transnational education student numbers from the HESA Aggregate Offshore Record, supplementing this with the Business, Energy and Industrial Strategy report (PDF, 4.19MB) for data on overseas student spend.

Updated data from HESA on research grants and contracts from bodies based outside the UK have also been introduced for the PB 2022 to replace outdated sources. This feeds into the exports of research and development services.

4 . Pink Book 2023 planned improvements

Education services exports: travel

As part of the improvements to our estimates of education-related travel exports, we will be implementing the following changes in the Pink Book (PB) 2023:

- expanding the use of administrative data sources for estimating tuition fees to also cover schools, further education (FE), and English language training (ELT)

- using administrative data to estimate other non-tuition expenditure of students in the UK instead of International Passenger Survey (IPS) data

Where possible, we have used financial records, but if unavailable, we have obtained estimates by multiplying student numbers with average student spend on tuition fees and non-tuition expenses such as accommodation, food, and other living costs.

These changes will provide larger coverage of the UK's education sector and move away from the uncertainties currently associated with IPS data. Countries with large education sectors such as Australia, Canada and the United States use administrative data to measure education-related travel exports.

We have collaborated with the Department for International Trade (DIT) and the London School of Economics (LSE), as well as with other important stakeholders such as the Department for Education (DfE), to make sure all available data sources and methods were considered. Following a research project led by the LSE, the Office for National Statistics (ONS) are working with the DIT and DfE to review and develop a revised taxonomy for education exports, with the aim of improving data accuracy. The LSE report, including its recommendations, will be published in due course and has been used to guide the changes described in this article.

Table 1 outlines current data sources and planned data sources to be used from the PB 2023 to measure education-related travel exports and the contribution of each education sector to total education-related travel exports in 2019.

Table 1: Current and planned data sources and contributions to total education-related travel exports

Education sector	Contribution in 2019	Current data sources	Planned data sources
Higher education	88%	International Passenger Survey, Higher Education Statistics Agency	Higher Education Statistics Agency, Student Income and Expenditure Survey, Eurostat
Non-Higher Education			
Schools	6%	International Passenger Survey	Independent Schools Council
English language training	5%	International Passenger Survey	English UK, Visit Britain
Further education	1%	International Passenger Survey	Education Skills Funding Agency, Home Office, Student Income and Expenditure Survey

Source: Office for National Statistics

Higher education

Higher education (HE) is by far the largest subcomponent, making up almost 88% of education-related travel exports in 2019. HE tuition fees estimates are obtained from Higher Education Statistics Agency (HESA) financial records. For non-tuition expenses, which include housing and living costs, the best available source identified is the Student Income and Expenditure Survey (SIES) 2014 to 2015 (PDF, 5.06MB), uprated in line with the Consumer Price Index. These estimates have been quality assured by comparing with data published on universities' websites. We recognise there are further improvements that could be made to HE non-tuition fee expenses and will review improving these in the future.

Non-higher education

The non-HE sectors contribute a smaller proportion to total education exports in comparison with HE. These sectors include schools (6% of total), ELT (5% of total), and FE (1% of total). For schools, tuition fees and accommodation data have been obtained from the [Independent Schools Council annual census reports](). A combination of [English UK student statistics reports]() and the [Visit Britain report (PDF, 671KB)]() for average student spend has been used to obtain ELT estimates. FE international students' tuition fees have been obtained from the [Education Skills and Funding Agency financial reports](), alongside a combination of [Home Office visa applications data]() and the SIES for other non-tuition expenses.

5 . Future developments

External stakeholder engagement

Improving our methods has involved consistent engagement with external stakeholders such as the London School of Economics, Department for International Trade, Department for Education, English UK, and other education providers. The Office for National Statistics strives to provide best estimates and will continue collaborating with our stakeholders to achieve this.

6 . Related links

[UK Balance of Payments, The Pink Book: 2022]()
Bulletin | Released 31 October 2022
Balances between inward and outward transactions, providing a net flow of transactions between UK residents and the rest of the world and reports on how that flow is funded.

[UK Balance of Payments, The Pink Book: 2021]()
Bulletin | Released 29 October 2021
Balances between inward and outward transactions, providing a net flow of transactions between UK residents and the rest of the world and reports on how that flow is funded.

7 . Cite this article

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