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A Feasibility Study Estimating the
Value of UK Education Imports

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About London Economics

London Economics is one of Europe's leading specialist economics and policy consultancies and has its head office in London. We also have offices in Brussels, Dublin, Cardiff and Budapest, and associated offices in Paris and Valletta.

We advise clients in both the public and private sectors on economic and financial analysis, policy development and evaluation, business strategy, and regulatory and competition policy. Our consultants are highly-qualified economists with experience in applying a wide variety of analytical techniques to assist our work, including cost-benefit analysis, multi-criteria analysis, policy simulation, scenario building, statistical analysis and mathematical modelling. We are also experienced in using a wide range of data collection techniques including literature reviews, survey questionnaires, interviews and focus groups.

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Glossary

BIS	Department for Business Innovation and Skills
CPI	Consumer Price Index
DIUS	Department for Innovation, Universities and Skills
ELT	English Language Training
FE	Further Education
FEC	Further Education College
HE	Higher Education
Hefce	Higher Education Funding Council for England
HEI	Higher Education Institution
HESA	Higher Education Statistics Agency
IPS	International Passenger Survey
ITIS	International Trade in Services
OECD	Organisation for Economic and Cultural Development
ONS	Office for National Statistics
SIES	Student Income and Expenditure Survey
TNE	Transnational Education

Executive summary

In previous research, London Economics estimated that the value of UK educational exports was approximately **£14.1 billion** in 2008/09¹. We attempted to estimate the value of educational import expenditure from the United Kingdom on a *like-for-like* basis; however, the lack of data in a number of areas resulted in us not being able to identify a robust estimate. Where we have been able to identify approximate estimates, these are presented in Table 1; however, there are some caveats and several assumptions underpinning these.

Table 1: Value of UK education and training import expenditure, 2008/09

Sector	2008/09 (£m)
Higher Education	
<i>Tuition fees</i>	151.8
<i>Other spending of UK HE students overseas</i>	229.1
<i>Transnational education (HE)</i>	≈ 11.8
<i>Income from research grants and contracts</i>	
<i>Income from licensing intellectual property</i>	
<i>Income from consulting, facilities and equipment</i>	
<i>Income from overseas alumni, international charitable organisations</i>	
<i>Other income from overseas (HE)</i>	
Further Education	
<i>Tuition fees</i>	19.6
<i>Other spending of UK FE students overseas</i>	31.6
<i>Transnational education (FE)</i>	≈ 1.4
<i>Other income from overseas (FE)</i>	
Foreign language training	
<i>Tuition fees</i>	63.8
<i>Other spending of UK ELT students overseas</i>	142.4
Qualification awarding bodies	
Independent primary and secondary schools	
Private sector training	
Education-related publishing	164.0
Education-related equipment	920.2
Education-related consultancy	
Education-related broadcasting	
Total value of UK education and training import expenditure	Not available

Source: London Economics. Shading implies no or very limited approximation possible. No shading implies that better information exists and some estimates possible, though still subject to caveats.

In Table 2, we provide a summary of the relative magnitudes of UK educational imports and exports where estimates exist.

¹ London Economics (2011), "Estimating the value to the UK of education exports", a report for the Department for Business Innovation and Skills, *BIS Research Paper 46*

Table 2: Value of UK education and training exports and imports, 2008/09

Sector	Exports(£m)	Imports (£m)
Higher Education	7,873.5	
<i>Tuition fees</i>	2,442.3	151.8
<i>Other spending</i>	4,344.9	229.1
<i>Transnational education (HE)</i>	210.8	≈11.8
<i>Research grants and contracts</i>	647.9	
<i>Licensing intellectual property</i>	46.6	
<i>Consulting, facilities and equipment</i>	84.9	
<i>Alumni, international charitable organisations</i>	34.5	
<i>Other (HE)</i>	61.6	
Further Education	1,070.3	
<i>Tuition fees</i>	138.6	19.6
<i>Other spending</i>	867.6	31.6
<i>Transnational education (FE)</i>	26.8	≈1.4
<i>Other (FE)</i>	37.3	
Language training	1,996.2	
<i>Tuition fees</i>	879.5	63.8
<i>Other spending</i>	1,116.7	142.4
Qualification awarding bodies	17.5	
Independent primary and secondary schools	478.9	
Private sector training	1,480.0	
Education-related publishing	749.0	164.0
Education-related equipment	453.0	920.2
Education-related consultancy	*	
Education-related broadcasting	24.5	
Total value	14,143.0	Not available

Source: London Economics. Red shading implies no or very limited approximation possible. No shading implies that better information exists and some estimates possible though still subject to caveats.

Context

The government is keen to support the UK education and training sector to develop international partnerships and continue attracting overseas students. Not only does this increase the United Kingdom's profile on the world stage, but also it provides the sector with opportunities to attract revenue and investment from overseas, which contribute to the UK economy.

To inform the government's policy and efforts in support of the sector, the Department for Business, Innovation and Skills (BIS) commissioned London Economics to establish a comprehensive estimate of the total value of overseas trade and investment in education-related activities to the United Kingdom economy. Having established the baseline value (**£14.1 billion** in 2008/09), the research also assembled historical trends and forecasts that will help understand the future growth potential and the United Kingdom's global share of the education-related activities over the next 10 years and beyond².

The Department was also interested in understanding whether a similar approach could be adopted to estimate the value of educational imports to the United Kingdom on a consistent basis. This report summarises the feasibility of undertaking such an approach, identifies where robust estimates may be presented and identifies those areas where there is little information available and further investigation may be required. Estimating imports of educational services on a consistent basis to exports is mainly being undertaken to support a joint evaluation by BIS and the Office for National Statistics of the official estimates that are published in the *Pink book*. These are known to be less than the estimates obtained by this and earlier British Council studies due to a number of factors including coverage, difference in categories and use of administrative rather than survey based estimates. Any changes to the official *Pink book* estimates will need to treat exports and imports coherently in order to avoid introducing a bias to the trade balance.

Definition of 'overseas trade and investment in education-related activities'

Overseas trade (or international trade) is the sale and purchase of goods and/or services across international borders. Education is a tradable sector with imports and exports like any other tradable sector, such as manufacturing. This research report focuses solely on imports, which consist of resource flows from the United Kingdom economy to overseas economies (i.e. a non-UK origin). The guiding definition for import income for inclusion in our valuation is that the income flows to an overseas source. Where an activity is partially financed from an overseas source (e.g. a US-funded scholarship for tuition fees), we attempt to offset against the import expenditure.

² London Economics (2011), "Estimating the value to the UK of education exports", a report for the Department for Business Innovation and Skills, *BIS Research Paper 46*

The definition of what constitutes an 'education-related activity' is slightly ambiguous and requires further consideration. As described in detail in the previous London Economics (2011) research relating to education exports, the first point to note is that, strictly speaking, 'education-related' is a broader concept than 'educational' activities, which may only include the activities where education is either the 'process' (e.g. teaching, training) or the 'output' (e.g. research, educational consultancy). In particular, education-related activity includes activities where education is an 'input' (e.g. import value added by non-UK-educated graduates); however, we believe that adopting this wider definition of education exports or imports incorporates many human capital related services that should not be included in this measurement exercise. Specifically, we do not think it sensible to include the imports that might be generated in the financial services sector that result from the activities of non-UK educated graduates (for instance, a non-UK educated maths graduate generating income (and profit) for a Swiss firm through commodity trading with a counterparty based in the United Kingdom). Therefore, we attempt to include all activities within the education 'process' and associated 'outputs', but exclude any activity pertaining to the education 'input'.

Finally, in the definition of education imports, we attempt to estimate the value of goods and services imported to support the education sector (e.g. educational equipment that facilitates the provision of education services in the United Kingdom whose origin is a foreign economy).

The education-import sectors of the economy covered in this research report consist of the exported teaching and research activities of Higher Education institutions (HEIs) and (the foreign equivalent of) Further Education Colleges (FECs); the provision of teaching and boarding services at primary and secondary level; the services of foreign examination and professional bodies supplied in the UK; the activities of foreign language schools; private sector training for adults; the activities of businesses providing services to these sectors originating overseas; and education-related publishing, broadcasting and consultancy activities originating overseas.

Examples of education-related activities that result in expenditure moving overseas include: fee expenditure by UK domiciled students studying at an institute of education overseas; expenditure on the accreditation of courses that devolve to overseas bodies; expenditure by UK institutions on research grants, contracts and collaborations from overseas educational organisations; contributions by UK residents to overseas educational institutions; donations to charitable organisations overseas; expenditure relating to the purchase of goods and services by UK education institutions from internationally-located spin-outs and the licensing of intellectual property overseas.

As with the previous research relating to educational exports, it is worth noting that the definition adopted may be broader than that used in the UK's official National Accounts due to difference in either categorisation or coverage. National Accounts (NA) data are collected and reported on the basis of agreed international classifications for both Industries (UN International Standard Industrial Classification of All Economic Activities, ISIC Rev.4) and Products (IMF Balance of Payments and International Investment Position Manual, BPM5). Trade in services is reported on a product basis in the UK Balance of Payments *Pink book*, but is currently reported as an identifiable education-related activity only for travel-related educational services in Higher and Further Education (fees and living expenditure). A number of other education exports may be covered by the NA data;

however, these are not separately identified as education-related (for example research and development, consultancy and broadcasting activities). Differences also arise due to the extent of coverage of the sector in the National Accounts. Education exports and imports undertaken by the non-market education sector are not covered by the ONS International Trade in Services inquiry (ITIS), which is the main source of business services trade data, and is limited to businesses that operate in the market sector.

Objectives of the research

In commissioning this research, the Department for Business, Innovation and Skills was seeking to build on the work undertaken on behalf of the Department by London Economics (2011) relating to the value of educational exports and assess the feasibility of generating *like-for-like* estimates of the value of educational imports. Where possible, broad estimates of the value of educational imports should be provided, and for the areas of educational activity where this is not possible, an indication of the evidence gaps that may exist.

The estimates should attempt to cover all forms of import activity that result in expenditure flows overseas as follows:

- **Higher Education**
 - tuition and other spending by UK students overseas
 - transnational education
 - expenditure on research grants, contracts and collaborations
 - expenditure on spinouts and licensing intellectual property
 - expenditure by UK alumni to overseas institutions
 - expenditure by UK individuals and institutions to charitable organisations based overseas, and
 - any other expenditure to HEIs located overseas
- **Further Education**
 - tuition and other spending by UK students overseas
 - transnational education, and
 - any other expenditure to FECs located overseas
- **Foreign language training**
 - tuition and any other contribution

- **Examination/ professional bodies**
- **Independent primary and secondary schools**
- **Private sector training**
- **Publishing (education component)**
- **Educational equipment**
- **Consultancy (education component)**
- **Broadcasting (education component)**

Baseline estimate of the value of UK education imports

Higher Education

Tuition fees

The first stage of the analysis involves assessing the number of UK residents that emigrate for the purposes of formal study overseas. There are two independent sources of information that provide reasonably reliable estimates on the number of students moving abroad to study. The first estimate of long-term international migration for the purposes of formal learning is from the International Passenger Survey (IPS), which estimates that for the four quarters year ending June 2009 (i.e. year ending September 2008, December 2008, March 2009 and June 2009) there were between 21,000 and 23,000 students travelling abroad for this purpose. The average number of UK students studying overseas in 2008/09 was **22,000** (with an associated standard error of approximately 18%). This compares to approximately 369,000 non-UK students (undergraduate and postgraduate) studying in UK Higher Education institutions and 77,000 non-UK students studying in UK Further Education Colleges.

Data from OECD Education at a Glance (2010) also provides information on student mobility patterns. Of the total number of students studying overseas in 2008/09 (3.342 million), the OECD estimates that approximately 0.70% of these students are normally resident in the United Kingdom. This corresponds to an estimate of **23,400** in 2008/09. We take this latter estimate to be the more appropriate for the current analysis and comparable with the previous estimates of educational exports, given the fact that there is some agreement with the IPS estimate of student numbers and the fact that the previous study on education exports made use of HESA data rather than IPS data³.

The OECD report also provides an indication of the level of study that overseas (generally) students are pursuing in the foreign country, as well as the location of overseas study. In particular, the OECD analysis suggests that approximately 12.3% of overseas students are undertaking Tertiary Type B qualifications (equivalent to more vocational related learning in the equivalent of a Further Education College); 75.9% are undertaking Tertiary Type A qualifications (undergraduate degrees), and the remaining 11.8% are undertaking programmes of advanced research.

³ The margin of error for the IPS might suggest that this level of agreement between the IPS and OECD data (which are based on data provided by countries' HE statistics agencies) is surprising given the large discrepancy between the IPS and HESA estimates relating to educational exports (foreign students studying in the United Kingdom). It may be that IPS imports data may be more reliable than exports since English speaking students may be more willing to respond to a survey than foreign speaking students, however, it is probable that the ONS take account of this factor.

Table 3: Destination of UK learners by country by level of qualification

	Proportion of UK students studying overseas	Total	Tertiary Type B (estimate)	Tertiary Type A (estimate)	Advanced Research (estimate)
Australia	5.9	1,422	205	1,156	61
Austria	0.8	193	4	171	18
Belgium	0.8	193	60	119	13
Canada	8.8	2,121	454	1,491	176
Chile	-	0	0	0	0
Czech	1.4	337	30	274	34
Denmark	1.6	386	66	302	17
Finland	0.7	169	0	144	25
France	8.8	2,121	195	1,684	242
Germany	6	1,446	71	1,374	0
Greece	0.4	96	39	58	0
Hungary	0.4	96	1	92	3
Iceland	0.1	24	0	23	1
Ireland	4.9	1,181	106	958	118
Italy	0.9	217	0	207	10
Japan	1.5	361	78	245	38
Korea	0.1	24	3	19	2
Luxembourg	-	0	0	0	0
Mexico	-	0	0	0	0
Netherlands	2.9	699	0	699	0
New Zealand	13.9	3,350	878	2,251	221
Norway	1.1	265	1	248	16
Poland	0.4	96	0	91	5
Portugal	0.3	72	0	63	9
Slovak Republic	0.1	24	0	21	3
Spain	2.5	602	208	255	139
Sweden	1.8	434	2	356	76
Switzerland	1.4	337	0	249	89
Turkey	0.4	96	5	87	5
United States	29.2	7,037	486	5,095	1,457
EU	37.2	8,965	785	7,363	817
Non-EU	62.8	14,435	2,107	10,367	1,961
Total	100	23,400	2,892	17,730	2,778

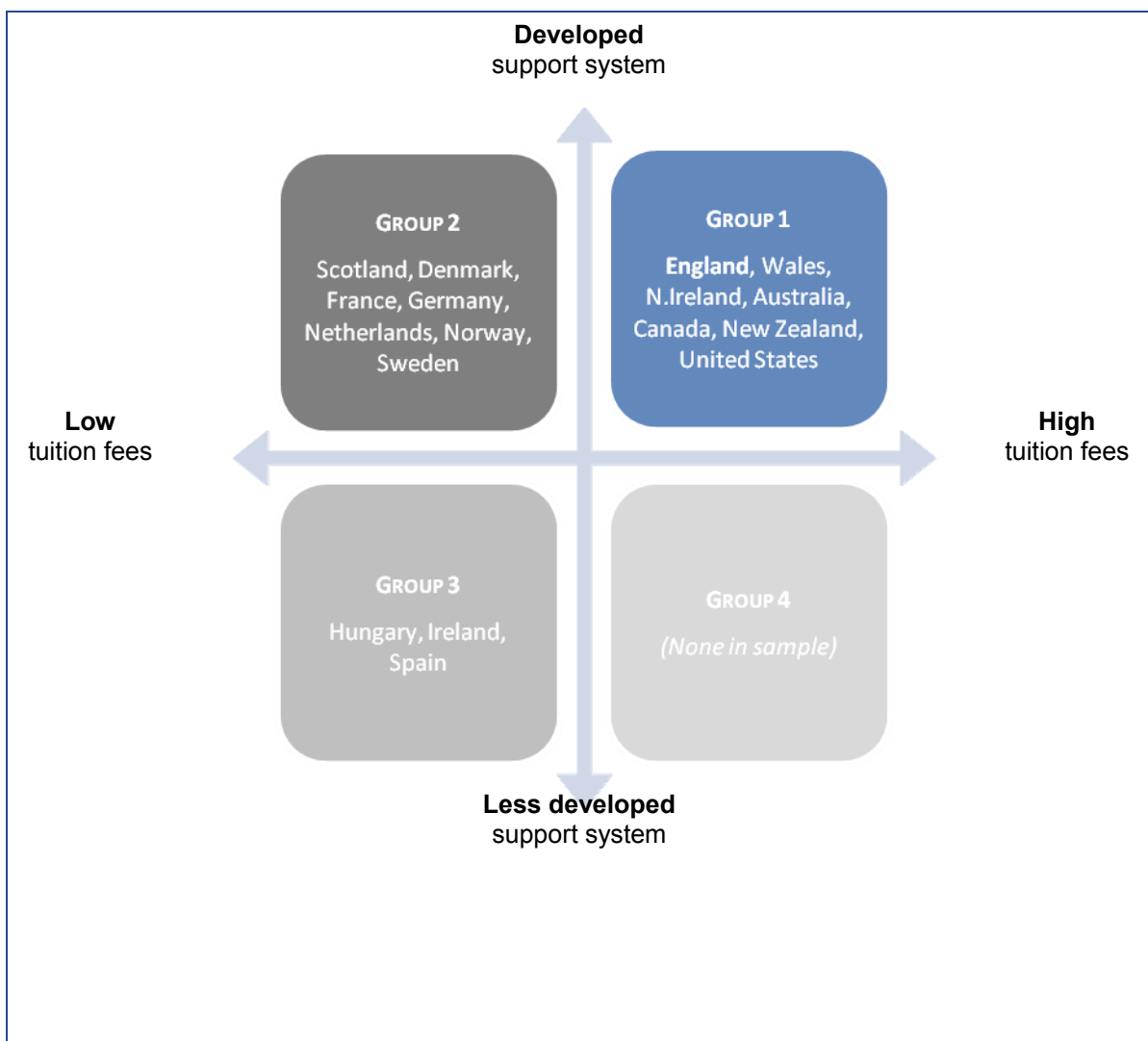
Source: London Economics analysis based on OECD 'Education at a Glance' (2010) data. Tertiary-type A programmes (ISCED 5A) are largely theory-based and are designed to provide sufficient qualifications for entry to advanced research programmes and professions with high skill requirements. Tertiary-type A programmes have a minimum cumulative theoretical duration (at tertiary level) of 3 years' full-time equivalent, although they typically last four or more years. Tertiary-type B programmes (ISCED 5B) are typically shorter than those of tertiary-type A and focus on practical, technical or occupational skills for direct entry into the labour market, although some theoretical foundations may be covered in the respective programmes. They have a minimum duration of 2 years full-time equivalent at the tertiary level

Combining this information on student numbers and level of study, the analysis presented in Table 3 demonstrates that the greatest proportion of UK students studying overseas undertake qualifications in the United States, followed by New Zealand, Australia, Canada, Ireland and France. We cannot say categorically which level of study they are pursuing in each country, as we are only able to apply the proportions of all overseas students studying at different levels in different countries (not just those originating from the UK). Therefore, for instance we may overestimate the numbers of UK students studying at

undergraduate level in the United States and underestimate the numbers undertaking postgraduate study.

Clearly, in every country under consideration, there are different tuition fee and student support arrangements at each of the different levels under consideration. From previous work undertaken for the Department for Business Innovation and Skills by London Economics (2010)⁴ relating to international fees and student support, the analysis illustrated in general terms the distribution of fees and student support arrangements in a number of countries that are identified in Table 3.

Figure 1: Matrix of characteristic-based groupings: Tuition fees vs. Development of support system



Source: London Economics (2010) “An analysis of international student support arrangements”, a report for the Department for Business Innovation and Skills, October 2010

⁴ London Economics (2010), “An analysis of international student support arrangements”, a report for the Department for Business Innovation and Skills, October 2010

The information presented in Table 3 indicates that approximately 14,000 of the students from the United Kingdom travelling overseas to undertake formal studies do so in countries that are generally considered to have high tuition fees (with or without a developed student support system), while approximately 7,500 attend educational institutions where tuition fees are considered to be relatively low (with the remaining 3,000 students not identified). There is no way to accurately assess the average fee that is charged to UK students studying overseas, as in many countries, such as Australia, the extent of the government subsidy (which would be unavailable to UK students) and the contribution made by students depends on the subject of study. For example, in Australia, having excluded very high cost degrees (such as medicine and dentistry), the previous London Economics' analysis indicates that tuition fees could range from anywhere between £4,000 per annum to £18,000 per annum at undergraduate level.

To achieve an initial assessment of the tuition fee expenditure spent overseas, given the fact that approximately two-thirds of students from the UK travel overseas to high tuition fee countries (the UK would be considered relatively representative of these) and one third of students attend low tuition fee countries (though still positive), we have assumed that the average fee expenditure overseas is equivalent to the sum of the total tuition fee that would have been paid by these students had they remained in the United Kingdom (£3,290 per annum at undergraduate level) **plus** the Hefce teaching funding grant that every domestic student receives as a subsidy for the provision of their degree from the state (£4,096 on average in 2008/09). Thus we have assumed that the representative student going overseas to pursue formal learning in an overseas institution spends £7,386 per annum on tuition fees. Combining this with the estimate of the number of students studying overseas implies that the total tuition fee expenditure at undergraduate level stands at approximately **£130.9 million** in 2008/09.

Table 4: Tuition fee expenditure by learners from the UK by level of qualification

	Average fee expenditure (£ per annum)	Number of students	Total fee expenditure (£m)
Tertiary Type A	£7,386	17,730	£130.9 m
Advanced research	£7,507	2,778	£20.8 m
Total		20,508	£151.8

Source: London Economics' analysis of OECD Education at a Glance (2010)

Undertaking the same approach for students undertaking postgraduate degrees, we have assessed the average tuition fee spent by students in the UK at postgraduate level (£5,214 per annum)⁵ and combined this with information on average Hefce funding at postgraduate level (£2,293) to arrive at an average annual tuition fee of £7,507. Combining this with the information on the number of postgraduate students attending universities overseas, we arrive at an estimate of postgraduate tuition fee expenditure of **£20.8 million** per annum. Combining these numbers, we have estimate that total tuition fee expenditure

⁵ See <http://www.publicgoods.co.uk/>

overseas originating from UK based students stands at approximately **£151.8 million** per annum.

There is some uncertainty around this estimate. It is probable that we underestimate the proportion of UK students undertaking postgraduate degrees in the United States (where higher than average tuition fees are incurred); however, against this, a sizeable proportion of students, especially at postgraduate level, receive generous scholarships and tuition fee waivers, which we have no information on. In the absence of further information, we believe this to be a reasonable estimate of the overseas tuition fee expenditure by UK based higher education students.

Non tuition fee expenditure

There is no centrally collected information on the non-tuition fee expenditure undertaken by UK students studying overseas. Therefore, we have assumed that broadly speaking the average annual expenditure by students from the UK undertaking higher education qualifications overseas is the same as overseas students studying in the UK. We use information from the (former) Department for Innovation, Universities and Skills (DIUS) Student Income and Expenditure Survey (SIES) to estimate that total non-tuition fee expenditure by UK students overseas was approximately **£229.0 million** in 2008/09. This estimate is based on the workings explained below.

The most recent SIES data available covers the period 2007/08 and suggest that the average expenditure by English domiciled full-time students is £12,254 for the academic year 2007/08 (covering a period of 39 weeks)⁶. This total expenditure includes tuition fees, living expenses, housing, participation and spending costs. Living costs in different countries will vary due to exchange rates and differences in purchasing power. However, as indicated in Table 3, the majority of students are studying in developed OECD countries where these differences relative to the UK are not so pronounced and these effects are not directly taken into account in the estimates.

Participation costs, as defined in SIES, include tuition fees, the costs of course-related books, equipment and stationery, the costs of travelling to and from university, childcare and course fees. Since we are only interested in non-tuition fee expenditure by overseas students, we have omitted the tuition fee component of the participation cost in our estimate (to avoid double counting, as tuition fee expenditure is reflected in the tuition fee income of institutions estimated above). On average, a full-time English domiciled student spent £2,251 on tuition fees in 2007/08, and so the average *non-tuition fee* expenditure per full-time student is estimated to be **£10,003** in the academic year 2007/08 (and **£10,304** in 2008/09).

In the previous work undertaken relating to education exports, we assumed that on average, an EU undergraduate spends 39 weeks in the UK and a non-EU undergraduate student spends 42 weeks in the United Kingdom⁷. This assumption is based on the

⁶ Academic year 2007/08 is September 2007 to June 2008.

⁷ However, there may be significant variability in the number of weeks a non-UK student stays in the UK, depending on a number of factors such as country of origin, and parental income etc.

supposition that EU students are likely to return home (during vacations) more often than non-EU students, due to the relative ease and low cost of transport⁸. We also assumed that all overseas postgraduate students (EU and non-EU) spend 52 weeks in the UK due to dissertations undertaken in the summer. Clearly, there is some potential uncertainty around the assumptions relating to stay-durations.

To ensure a *like-for-like* analysis, for UK students studying overseas, we have assumed that UK undergraduate students in the EU spend 39 weeks abroad; UK undergraduate students in non-EU countries spend 42 weeks abroad; and UK postgraduate students in both the EU and non-EU spend 52 weeks abroad.

Extending the 39 week academic year (September to June) expenditure figures to the assumed stay-durations above and inflating the 2007/08 value (£10,003) to 2008/09 prices using the Consumer Price Index, our estimated 2008/09 average non tuition fee expenditure figures by type of UK student overseas are shown in Table 5⁹.

Table 5: Average ‘other expenditure’ per full-time UK student by type of student, 2007/08 and 2008/09

	EU Undergraduate (39 weeks) £	Non-EU Undergraduate(42 weeks) £	EU/Non-EU Postgraduate (52 weeks) £
2007/08	10,003	10,772	13,337
2008/09	10,304	11,097	13,739

Source: DIUS SIES 2007/08 report, London Economics (current prices)

Combining average non-tuition fee expenditure with the numbers of students in each category by location (presented in Table 3) generates an aggregate estimate of non-tuition fee expenditure by UK higher education students overseas of **£229.1 million** in 2008/09. This is presented in Table 6 overleaf.

⁸ We have assumed that non-EU students are considered more likely to go home for summer only, rather than for Christmas and Easter as well.

⁹ Specifically, to generate the average non tuition fee expenditure for non-EU undergraduates in 2008/09, we multiply £10,304 by 42 and divide by 39 = £11,097 (rounded), while for EU/non-EU postgraduates we multiply £10,304 by 52 and divide by 39 = £13,739 (rounded).

Table 6: Average ‘other expenditure’ per full-time UK student by type of student, 2008/09

	EU Undergraduate	Non-EU Undergraduate	EU/Non-EU Postgraduate	Total
Number visiting EU countries	7,363		817	8,180
Number visiting Non-EU countries		10,367	1,961	12,328
Non tuition fee expenditure per student (£)	10,304	11,097	13,739	£11,170
Total expenditure (£ million)	£75.9m	£115.0m	£38.2m	£229.1m

Source: DIUS SIES 2007/08 report, London Economics (current prices)

Transnational education (HE)

Transnational education refers to education provision where students are based (domiciled and resident) in a country other than that in which the awarding institution is based. For the purposes of the current exercise, this means students based in the UK studying for overseas education qualifications. Transnational education can be classed as an educational import if the overseas-based awarding institutions receive a part of the tuition fees paid by the UK students to the provider institution, providing a flow of expenditure out of the UK economy. Examples of transnational education include distance learning and studying at a UK campus of an overseas Higher Education Institution (HEI).

We were unable to find any robust information on the expenditure by UK individuals/learners to overseas higher education institutions with either a physical presence in the UK or provision by distance learning. Given the fact that the UK export value of transnational education was estimated to be approximately £210.8 million in 2008/09, we would assess that the approximate value of TNE imports would be broadly proportionate to the relative size of higher education imports to higher education exports (based on tuition fees and non tuition fee expenditure). This proportion stands at approximately 5.6%, which is equivalent to approximately £11.8 million.

London Economics have been unable to find any robust information for imports of the following categories:

Expenditure on research grants and contracts from overseas educational institutions

Overseas higher education institutions also receive income from UK sources through research grants and contracts. The HESA definition of income from research grants and contracts is ‘...all income in respect of externally sponsored research carried out by the institution or its subsidiary undertaking for which directly related expenditure has been incurred’.

Expenditure on licensing intellectual property

Expenditure to overseas higher education institutions could also be associated with the purchase of the licensing of intellectual property of new technologies or shares in spin-off companies created by overseas Higher Education Institutions.

Expenditure on consultancy contracts, facilities and equipment

Another source of expenditure to overseas Higher Education Institutions is associated with consultancy contracts, facilities and equipment services. Consultancy contracts differ from research contracts because consultancy is defined as 'the receipt of expert advice and work', whereas research contracts are related to UK sponsored research undertaken by overseas higher education institutions.

Expenditure by UK based alumni of overseas institutions to international charitable organisations or educational institutions

Summary of Higher Education exports

The analysis undertaken on the expenditure of UK-based individuals and institutions resulting in income generated by overseas higher education institutions is partial. We have been able to generate estimates of tuition fee and non-tuition fee expenditure only, and even then there are some uncertainties associated with the estimates. On a *like-for-like* basis (i.e. comparing just tuition fee and non tuition fee expenditure), the value of educational imports is estimated to be approximately £380.9 million per annum, which is approximately 5.6% of the value of educational exports.

Further Education

Tuition fees

Data on the number of UK students undertaking formal learning overseas by qualification level is presented in Table 3. The information from the OECD suggests that of the 23,400 students overseas, approximately 2,892 are undertaking Tertiary Type B studies, which are broadly equivalent to vocational or occupational related training in the equivalent of a UK Further Education College. Approximate estimates of the distribution of these students by destination country are also available, resulting in an estimate of 785 of these students studying in the European Union and approximately 2,107 studying outside the European Union. As with the analysis relating to higher education students studying overseas, there is no central source of information relating to tuition fee income; however, approximately 2,000 of the students are studying in countries where post compulsory tuition fees are comparable to the United Kingdom, with approximately 900 studying in countries with relatively low post compulsory tuition fees. However, there is some degree of uncertainty about this.

We have adopted a similar approach to that adopted for higher education students. We have assumed that the average fee paid by a UK student undertaking formal Tertiary Type B learning in an overseas educational institution is equal to the average tuition fee paid by a domestic student (£1,707) plus the total amount of central government support (£5,070

in 2008/09¹⁰). This suggests that the average tuition fee paid by UK students overseas is approximately £6,777, though clearly some of this may be subsidised by the destination institution (especially in the EU) so this may be an overestimate of the fee paid. Combining this information with the number of learners, we arrive at an estimate of **£19.6 million**, which may be an overestimate of the true value of fee expenditure overseas.

Table 7: Tuition fee expenditure by FE learners from the UK

	Average fee expenditure (£ per annum)	Number of students	Total fee expenditure (£m)
Tertiary Type B	£6,777	2,892	£19.6 m

Source: DIUS SIES 2007/08 report, London Economics (current prices)

Other spending of FE overseas students in the UK

In addition to tuition fees, overseas students also pay for accommodation and other day-to-day expenses incurred over the duration of their study. There is no data available on the non-tuition fee expenditure of UK students whilst overseas. Therefore, we replicate the analysis we applied to the estimate of non-tuition fee expenditure in higher education (based on SIES as before).

We use data from the SIES report on the non-tuition fee expenditure of UK-domiciled students studying at FE Colleges. However, this estimate only takes into account those students studying either a bachelor's degree, a HND/HNC or a PGCE and omits those studying for shorter courses (which may overestimate the actual non-tuition fee expenditure taking place). **We assume that the level and pattern of expenditure by overseas domiciled UK students is similar to English domiciled students.** From SIES, we have estimated that the average non-tuition fee expenditure of overseas students in FE Colleges of £11,824 and we have assumed that this is a reasonable estimate of the potential expenditure incurred by UK students studying overseas over the course of an academic year.

We have adjusted this estimate of the non-tuition fee expenditure based on the assumption that these UK students would spend approximately 36 weeks overseas per annum (to ensure comparability with the work undertaken relating to educational exports). Based on these assumptions, and combining with the information from the OECD on the number of UK based students studying overseas for Tertiary Type B qualifications, we estimate the non-tuition fee expenditure by UK students overseas to be **£31.6 million** in 2008/09.

Transnational education (FE)

We were unable to find any robust information on the expenditure by UK individuals/learners associated with the purchase of educational services from overseas further education institutions. Given the fact that the UK export value of transnational education in

¹⁰ Department for Innovation and Skills Departmental Report 2009

Further Education was estimated to be approximately £26.8 million in 2008/09, we would assess that the approximate value of TNE imports would be broadly proportionate to the relative size of further education imports to further education exports (based on tuition fees and non tuition fee expenditure). This proportion stands at approximately 5.0%, which is equivalent to approximately **£1.4 million** in 2008/09.

Other sources of income from overseas

We were unable to find any robust information on the import expenditure by UK based individuals or institutions to overseas charitable organisations or educational institutions.

Summary of export income in Further Education

The analysis undertaken on the expenditure of UK-based individuals resulting in income generated by overseas education establishments is again patchy. We have been able to generate estimates of tuition fee and non tuition fee expenditure only, and even then there are some significant uncertainties associated with the estimates. On a *like-for-like* basis (i.e. comparing just tuition fee and non-tuition fee expenditure), the value of educational imports stands at approximately **£51.2 million** per annum, which is approximately 5.0% of the value of educational exports.

Foreign language training

Tuition fees

The approach we have adopted to better assess the extent of expenditure by UK based individuals on foreign language training is based on information from a Eurostat 2006 Eurobarometer¹¹ publication assessing the incidence and perceptions of European Union citizens in relation to foreign language knowledge and use.

Using a representative sample of the United Kingdom population, the publication suggests that the proportion of individuals resident in the United Kingdom with English as their mother tongue stands at 92%. Across the entire sample, the analysis suggests that the proportion of individuals that have attempted to improve their language skills in the last *two* years stands at 18% and that approximately 3% of individuals normally resident in the United Kingdom have ever used language courses in a country where the language is spoken. Combining these estimates implies that in the last year, approximately 0.50% of individuals normally resident in the United Kingdom may have undertaken foreign language training in a country where the language is spoken. This may actually overstate the proportion of individuals that have used language classes overseas given the fact that there may be a relatively high concentration of individuals who state that this has been a route they have followed who do not have English as their mother tongue but are now resident in the UK (i.e. may have taken English language classes in the UK before moving to the UK permanently).

¹¹ Eurobarometer (2006) "Europeans and their languages", European Commission DG Education Arts and Culture

Information from the ONS on the mid-year population estimate for the United Kingdom for those aged over 15 (the sampled population from the Eurobarometer study) was 50.6 million in 2008 and 51.0 million in 2009. Taking the average over the two years (50.8 million), and combining this information with the proportions calculated above, suggests that approximately **126,000** UK residents may have used foreign language classes overseas to improve their language skills in the last year.

The average weekly tuition fee expenditure for foreign students studying in the United Kingdom stands at **£763** per student. According to the Language Travel Magazine¹² the cost of a 1 month language course in France, Spain and Italy (in common currency) is approximately 66% of the average training fee charged in the United Kingdom (equivalent to £505 average training fee expenditure). Combining this information with the total number of students that may have undertaken foreign language training, we arrive at an estimate of tuition fee expenditure of approximately **£63.8 million** in 2008/09. This is presented in Table 8.

Table 8: Tuition fee expenditure by foreign language learners from the UK

	Average fee expenditure (£)	Number of students	Total fee expenditure (£m)
Tuition fee expenditure	£505	126,187	£63.8 m

Source: London Economics' analysis of Language Travel magazine

Other spending of UK FLT students overseas

In addition to tuition fees, overseas students also pay for accommodation and other day-to-day expenses incurred overseas over the duration of their study. As before, there is no data available on the non-training fee expenditure of UK foreign language training students whilst overseas. Therefore, we again use the data from SIES and, as before, assume that the weekly expenditure of UK foreign language training students is the same as for overseas ELT students coming to the UK.

From the previous work relating to educational exports, we have estimated that the average non-training fee expenditure to be £304 per week. This may be higher than the actual estimate of non-tuition fee expenditure overseas given the fact that the UK is a relatively high cost country, however, in the absence of better information, we have little alternative. The Language Travel Magazine (LTM) looks at global language markets. This publication estimates that the average stay of a student studying English overseas is 5.9 weeks; however, assuming that there are equal proportions of learners undertaking language learning in France, Italy and Spain, the average stay duration of learners in stands at 3.7 weeks (France (3.1 weeks), Spain (3.5 weeks) and Italy (4.5 weeks)). Given the high incidence of those English speaking learners studying overseas in these countries, we have assumed that this is the average stay duration of UK students studying foreign languages overseas stands at approximately 3.7 weeks.

¹² <http://www.hothousemedia.com/ltn/ltmbackissues/mar11web/mar11status.htm>

Combining the average non-tuition fee expenditure, with the total number of students and the average length of stay, we have estimated that the total non-tuition fee expenditure by UK students studying overseas is approximately **£142.4 million** in 2008/09.

Summary

We have estimated that the total tuition fee and non tuition fee expenditure of UK residents studying foreign languages overseas stood at approximately **£206.2 million** in 2008/09. This is approximately 10.3% of the estimate of total export income generated by the ELT sector in 2008/09 (**£1,996.2 million**).

Qualification awarding bodies

We were unable to find any robust information on the expenditure by UK institutions, individuals or learners associated with the purchase of educational services from overseas qualification awarding bodies.

Independent primary and secondary schools

Published information from the International Passenger Survey (3-series) show that the outflow of migrants from the United Kingdom aged less than 15 in 2009 was approximately 17,000. However, this estimate relates to the total number of young people emigrating from the United Kingdom and not necessarily the number of young people that might be attending a primary or secondary school overseas (as a boarder). This distinction is important given the fact that when estimating the value of educational exports, we considered only those individuals from overseas who were boarding at either primary or secondary school in the United Kingdom.

We also accessed Travepac data, which provides some information on the length and purpose of overseas travel, as well as some information on the personal characteristics of those undertaking that travel. However, there were no observations in the sample of individuals aged less than 15 travelling overseas for more than 3 months for study purposes. Even extending the search to stays of between 1 and 3 months, there were only 7 observations. When aggregated using weighting factors, this corresponds to an estimate of approximately 1,000 individuals. It is unreasonable to base any estimate on a sample size this small, especially when there is no information relating to whether these individuals were staying with relatives/friends and attending a school on a day basis (for instance) or as a boarder.

As such, we were unable to find any conclusive information on the expenditure by UK households, individuals or learners associated with the purchase of educational services from overseas primary or secondary schools.

Private sector training

We were unable to find any robust information on the expenditure by UK institutions, individuals or learners associated with the purchase of educational services from overseas private sector training organisations.

Education-related publishing

The Publishers Association Statistics Yearbook 2009 provides data on imports of school, ELT and academic books. The value of educational publishing imports is derived from taking away 'sales at end purchaser prices' from 'sales at end purchaser prices plus imports'. This gives a value of **£164.0 million** for the calendar year 2009 (Table 9).

Table 9: Publisher imports of education-related books

	Sales at end purchaser prices (£m)	Sales at end purchaser prices plus imports (£m)	Value of imports (£m)
School/ELT	223.0	223.0	0.0
Academic/Professional	547.0	711.0	164.0

Source: Table A4, Derivation of UK book market size 2008-2009, The Publishers Association Statistics Yearbook 2009

This figure may underestimate the true value of education-related publishing imports because there is an assumption that the value of School/ELT imports is zero. The value of educational imports stands at approximately **£164.0 million** per annum, which is approximately 21.9% of the value of educational exports.

Education-related equipment

The MQ10 UK Trade in Goods Analysed in Terms of Industries reports imports of general office equipment. In particular, the estimate of the value of chairs and other office shop furniture imported stands at £1,758 million; office machinery imported stands at £2,123 million, while the import of computers and processing equipment stands at £11,984 million. However, these estimates include all office furniture and machinery and not education related activity in particular.

Table 10: Value of Imports of office equipment and machinery

	2008	2009
Manufacture of chairs and seats (£m)	1,882	1,612
Manufacture of other office and shop furniture (£m)	205	146
Manufacture of office machinery (£m)	2,025	2,123
Manufacture of computers/process equipment (£m)	13,277	11,984
Total (£m)	17,389	15,865

Source: MQ10Q110 Table 2 imports by industry

When estimating the value of education-related equipment exports, we used data from British Educational Suppliers' Association (BESA) to estimate the proportion of total exports of office equipment and machinery that is education related. In 2008, this proportion was 5.7% and in 2009 it was 5.8%. In the absence of available data, we have assumed that the same proportion applies to imports. Therefore, the total imports of education related equipment and machinery is £920.2 million in 2009.

Table 11: Value of Imports of office equipment and machinery

	2008	2009
Total imports of office equipment and machinery (£m)	17,389	15,865
Proportion education related	5.7%	5.8%
Total imports from education equipment (£m)	991.2	920.2

The value of educational imports stands at **£920.2 million**. This is approximately twice the value of educational exports, although there may be some uncertainty around this estimate.

Education-related consultancy

We were unable to find any robust information on the expenditure by UK institutions, individuals or learners associated with the purchase of education related consultancy from overseas organisations.

Education-related broadcasting

We were unable to find any robust information on the expenditure by UK institutions, individuals or learners associated with the purchase of education related broadcasting services from overseas organisations.

Summary

In previous research, London Economics estimated that the value of UK educational exports was approximately **£14.1 billion** in 2008/09. We attempted to estimate the value of educational import expenditure from the United Kingdom on a *like-for-like* basis; however, the lack of data in a number of areas resulted in us not being able to identify a robust estimate. Where we have been able to identify approximate estimates, these are presented in Table 12; however, there are some caveats and several assumptions underpinning these.

According to the most recent *Pink book* (2010), which provides an assessment of the UK Balance of Payments, education related travel exports cover the tuition fees and other expenditure of students who are funded from abroad and studying in the UK (imports cover the expenditure of UK students studying abroad). The figures also include the fees and other expenditure of pupils in UK private schools and students at other colleges and language schools. Income received directly from abroad by examining bodies and correspondence course colleges is included within personal, cultural and recreational services.

To place our estimates in context, the 2010 *Pink book* estimates that the total value of education related travel exports stood at £3.8 billion in 2009, while the total value of education related travel imports stood at £159.0 million. As described in detail in the previous work by London Economics relating to educational exports, there are a number of

reasons why the *Pink book* may underestimate the total value of exports¹³. However, it is informative to assess the ratio of imports to exports in education related services. When using estimates from the *Pink book*, this ratio is estimated to be approximately 4.2%, which compares to an estimate of approximately 6.5% in this study.

Table 12: Value of UK education and training import expenditure, 2008/09

Sector	2008/09 (£m)
Higher Education	
<i>Tuition fees</i>	151.8
<i>Other spending of UK HE students overseas</i>	229.1
<i>Transnational education (HE)</i>	≈ 11.8
<i>Income from research grants and contracts</i>	
<i>Income from licensing intellectual property</i>	
<i>Income from consulting, facilities and equipment</i>	
<i>Income from overseas alumni, international charitable organisations</i>	
<i>Other income from overseas (HE)</i>	
Further Education	
<i>Tuition fees</i>	19.6
<i>Other spending of UK FE students overseas</i>	31.6
<i>Transnational education (FE)</i>	≈ 1.4
<i>Other income from overseas (FE)</i>	
Foreign language training	
<i>Tuition fees</i>	63.8
<i>Other spending of UK ELT students overseas</i>	142.4
Qualification awarding bodies	
Independent primary and secondary schools	
Private sector training	
Education-related publishing	164.0
Education-related equipment	920.2
Education-related consultancy	
Education-related broadcasting	
Total value of UK education and training import expenditure	Not available

Source: London Economics. Shading implies no or very limited approximation possible. No shading implies that better information exists and some estimates possible, though still subject to caveats.

In Table 12, we provide a summary of the relative magnitudes of UK educational imports and exports where estimates exist.

¹³ The comparable total estimate from London Economics' estimations was **£10.3 billion** [calculated as the sum of Higher Education tuition fees (£2,442.3 million), Other spending of overseas HE students in the UK (£4,334.9 million), Further Education tuition fees (£138.6 million), Other spending of overseas FE students in the UK (£867.6 million), English language training tuition fees (£879.5 million), other spending of overseas ELT students in the UK (£1,116.7 million), and tuition and boarding fees of independent primary and secondary schools (£478.9 million)]. The London Economics' estimate is more than twice the size of *The Pink Book* value based on the *IPS* data

Table 13: Value of UK education and training exports and imports, 2008/09

Sector	Exports (£m)	Imports (£m)
Higher Education	7,873.5	
<i>Tuition fees</i>	2,442.3	151.8
<i>Other spending</i>	4,344.9	229.1
<i>Transnational education (HE)</i>	210.8	≈11.8
<i>Research grants and contracts</i>	647.9	
<i>Licensing intellectual property</i>	46.6	
<i>Consulting, facilities and equipment</i>	84.9	
<i>Alumni, international charitable organisations</i>	34.5	
<i>Other (HE)</i>	61.6	
Further Education	1,070.3	
<i>Tuition fees</i>	138.6	19.6
<i>Other spending</i>	867.6	31.6
<i>Transnational education (FE)</i>	26.8	≈1.4
<i>Other (FE)</i>	37.3	
Language training	1,996.2	
<i>Tuition fees</i>	879.5	63.8
<i>Other spending</i>	1,116.7	142.4
Qualification awarding bodies	17.5	
Independent primary and secondary schools	478.9	
Private sector training	1,480.0	
Education-related publishing	749.0	164.0
Education-related equipment	453.0	920.2
Education-related consultancy	*	
Education-related broadcasting	24.5	
Total Value	14,143.0	Not available

Source: London Economics. Red shading implies no or very limited approximation possible. No shading implies that better information exists and some estimates possible though still subject to caveats.

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