

The Economic Impact of the University of Exeter's International Students

APRIL 2012







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Foreword

The University of Exeter is proud to be home to over 5,000 outstanding students from outside the United Kingdom. Drawn from 140 different countries, and located across our campuses in Devon and Cornwall, our international students have a hugely positive impact on the life of the University and our local communities.

It is particularly gratifying to see the large numbers of local residents who join us in celebration of the many cultural events that occur on our campuses, such as Diwali and Chinese New Year. In turn, as part of this intercultural exchange, our students learn to explore and experience our own local traditions, valuing the safe and welcoming environment that residents in Exeter and Penryn readily offer. Friendships forged in the South West of England today will benefit us all long into the future.

At a time of considerable international economic uncertainty, we should also acknowledge the positive impact our international students have on local jobs and local investment. This report, by Oxford Economics, calculates that impact on both the Exeter and South West economies.

By evaluating the amount of tuition fees paid to the University, along with spending on living expenses and by friends and relatives visiting from abroad, Oxford Economics demonstrate how the presence of international students at the University of Exeter economically benefits the local community. Their independent conclusions are extraordinary.

International students at the University contribute over £88 million a year to Exeter's GDP and support 2,880 jobs, which is equivalent to 2.8% of all employment in the city. Looking at the wider region, these students contribute over £104 million each year to the South West economy, supporting 3,280 jobs.

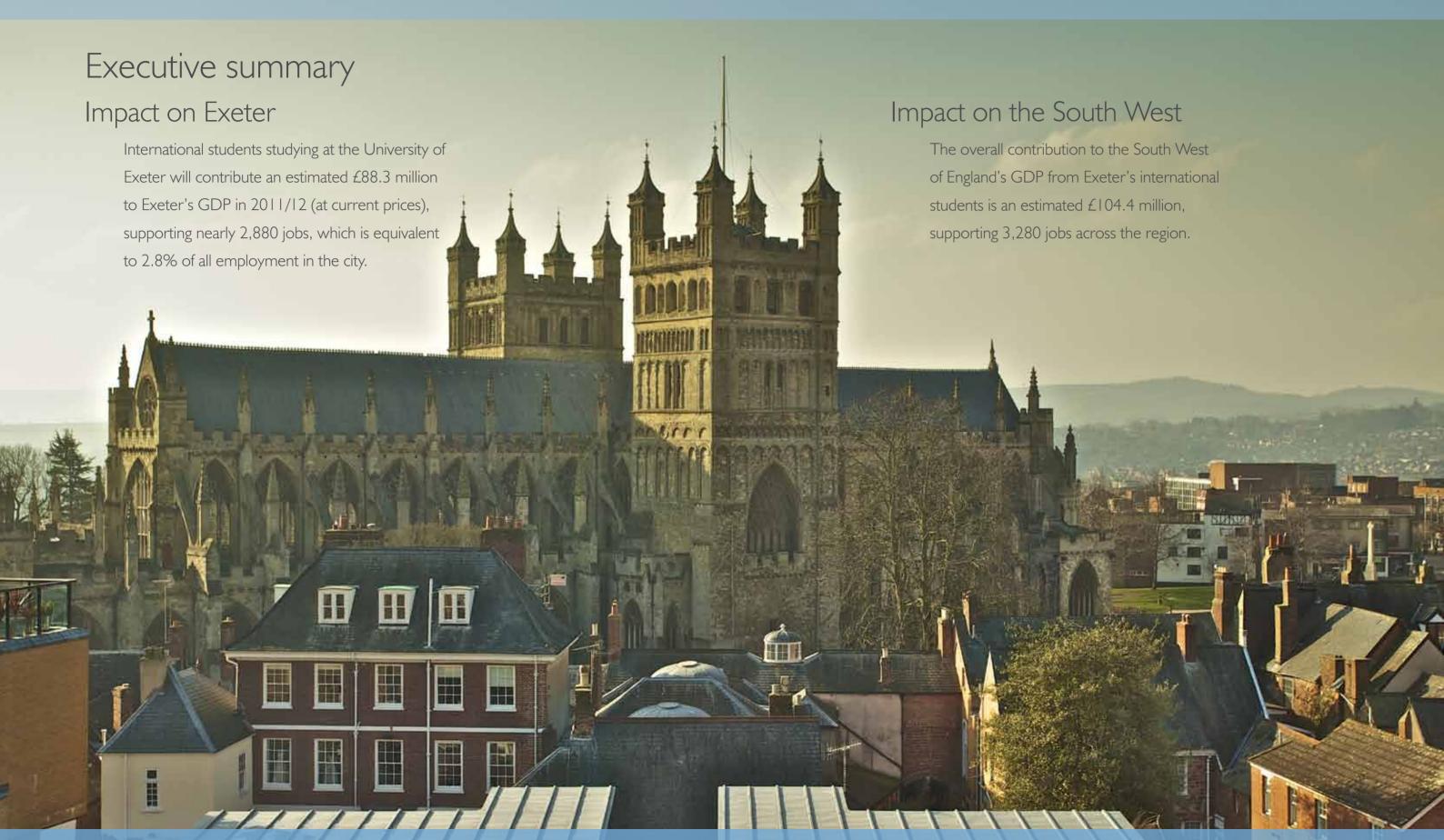
The figures are impressive enough on their own, but of significance is the fact that since we last conducted a similar analysis, in April 2010, the contribution to Exeter's GDP from the presence of international students has increased by 54%, while supported employment has increased by 36%.

As a leading British and international university, Exeter is committed to attracting the brightest and best students from around the world. For our local and regional economies, it is essential that the United Kingdom continues to welcome international students to its shores. This report shows that attracting such talent is having a positive and profound impact on us all.

Professor Neil Armstrong
Senior Deputy Vice-Chancellor (Internationalisation)
April 2012











Executive summary (cont.)

The University of Exeter's international students will pay around £55 million in tuition fees...

We estimate that the University of Exeter will derive around £54.9 million of revenues from tuition fees from all international students in the 2011/12 academic year. This will contribute an estimated £46.4 million to the city's economy in total, through direct and multiplier effects.

...with subsistence spending contributing a further £39.2 million to GDP in Exeter...

There are 5,477 international students (defined as non-UK domiciled students attending UK-based courses) at the University of Exeter in 2011/12, representing an increase of 35% in numbers compared to 2009/10. We estimate that the total subsistence expenditure of these students will amount to approximately £63.3 million. Once allowing for purchases and multiplier effects we find that the impact upon the city's GDP will be around £39.2 million.

...and visits by friends and relatives contributing a further £2.7 million to Exeter's GDP in 2011/12

Our estimates for the total amount of spending by international visitors to Exeter, whose primary reason for entry is to visit a student at the University, will be $\pounds 4.7$ million in 2011/12. Adjusting for purchases and multiplier effects we find that the impact on GDP will be around $\pounds 2.7$ million.

In total, international students studying at the University of Exeter will contribute £88.3 million to the city's GDP in 2011/12 (at current prices), supporting nearly 2,880 jobs, which is equivalent to 2.8% of all employment in the city...

...but the catalytic effects mean the overall contribution of Exeter's international students to the economy is far wider than these direct and multiplier effects

These wider benefits are more intangible and so less easy to quantify, but nevertheless ultimately have a very real impact upon the economies of both the city and the UK. These economic benefits result from the social and cultural links created as a consequence of international students studying in the city.

For example, contact that is initially made by individuals studying in Exeter may eventually lead to other economic links; in later life these students will often move into important roles in their home or other countries and the links they have forged with the UK during their education will tend to build a predilection for UK culture, goods and services.

The contribution to Exeter's GDP from the presence of international students increased by 54% between 2009/10 and 2011/12, while supported employment increased by 36%

The fees earned from international students at the University of Exeter increased by 82% between 2009/10 and 2011/12, which translates into an increase in the contribution to the GDP of the economy of Exeter of 54%.

The total number of jobs supported in Exeter by international students has increased from 2,120 to approximately 2,880, equivalent to a growth of 36%.

International students enrolled at the University of Exeter now support 2.1% of the city's GDP and 2.8% of its employment

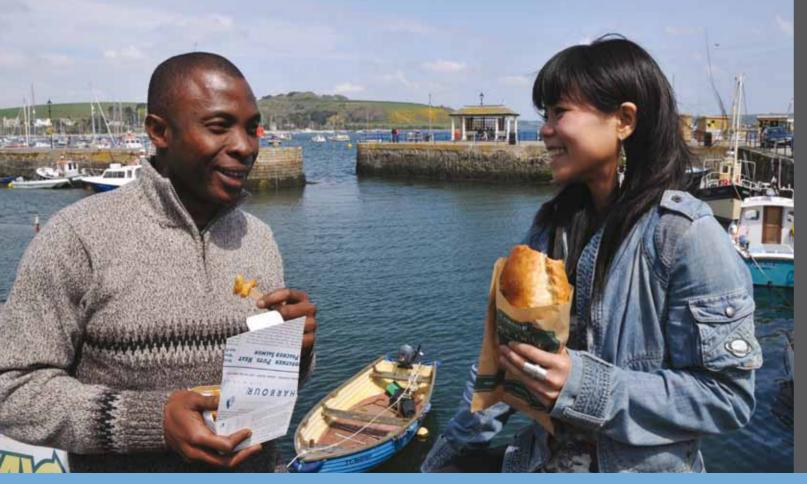
The role that international students play in supporting the economy of Exeter has grown substantially since 2009/10, with the contribution to GDP increasing from 1.6% to 2.1%, supporting 2.8% of Exeter's jobs compared with 2.3% in 2009/10.

The Economic Impact of the University of Exeter's International Stu



This section of the report examines the total economic contribution of international students who undertake courses at the University of Exeter in the 2011/12 academic year. This contribution is segmented into three components of spending:

- Tuition fees paid;
- Subsistence purchases by international students; and
- Visits by friends and relatives from abroad to students while they are studying at the University.



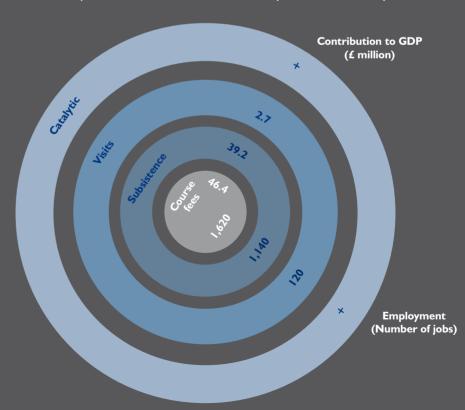
Fees

Data provided from the University of Exeter's internal financial planning systems provided a breakdown of projected income from tuition fees for the academic year 2011/12 by degree type (Undergraduate or Postgraduate), study mode (Fulltime or Part-time), and fee status (Home / EU or International).

The data however does not distinguish between UK-and non-UK domiciled students qualifying for Home / EU fee status. To overcome this gap, combining data on the headcount and "Fee Bands" by school, domicile, and campus provides a basis for estimating fee income from non-UK domiciled EU students. As a cross-check these estimates were compared with the University's own forecasts, which suggest that 6% of the population of Home / EU fee paying students were from a non-UK origin.

Table 2.1 overleaf presents the estimated fee revenue generated from international students at the University of Exeter in 2011/12, disaggregated by degree level, and student origin. The table, together with Chart 2.1, shows that for each level of study, the primary source of international student fee income is from Non-EU students – a result that is not surprising given the differential of the fees levied on Non-EU and EU students (for example a full-time EU undergraduate pays £3,375 per year, while a Non-EU student doing the same course will pay either £11,900 or £14,500 depending upon the area of study). All-told international students at the University of Exeter will spend an estimated £54.9 million on fees for the 2011/12 academic year.

Figure 1: The economic impact international students on the city of Exeter economy



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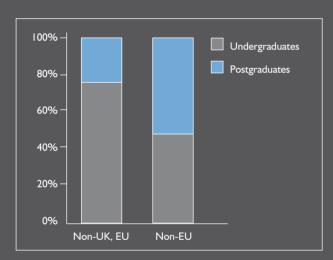
The Economic Impact of the University of Exeter's International Str

Table 2.1: Breakdown of estimated tuition fee revenue from international students 2011/12 (£ million)

	Fee Income (£m)
Non-UK, EU Undergraduate	2.2
Non-EU, Undergraduate	20.4
Non-UK, EU Postgraduate	0.7
Non-EU, Postgraduate	20.1
INTO students	11.5
Total Fee Income	54.9

Source: Oxford Economics/University of Exeter

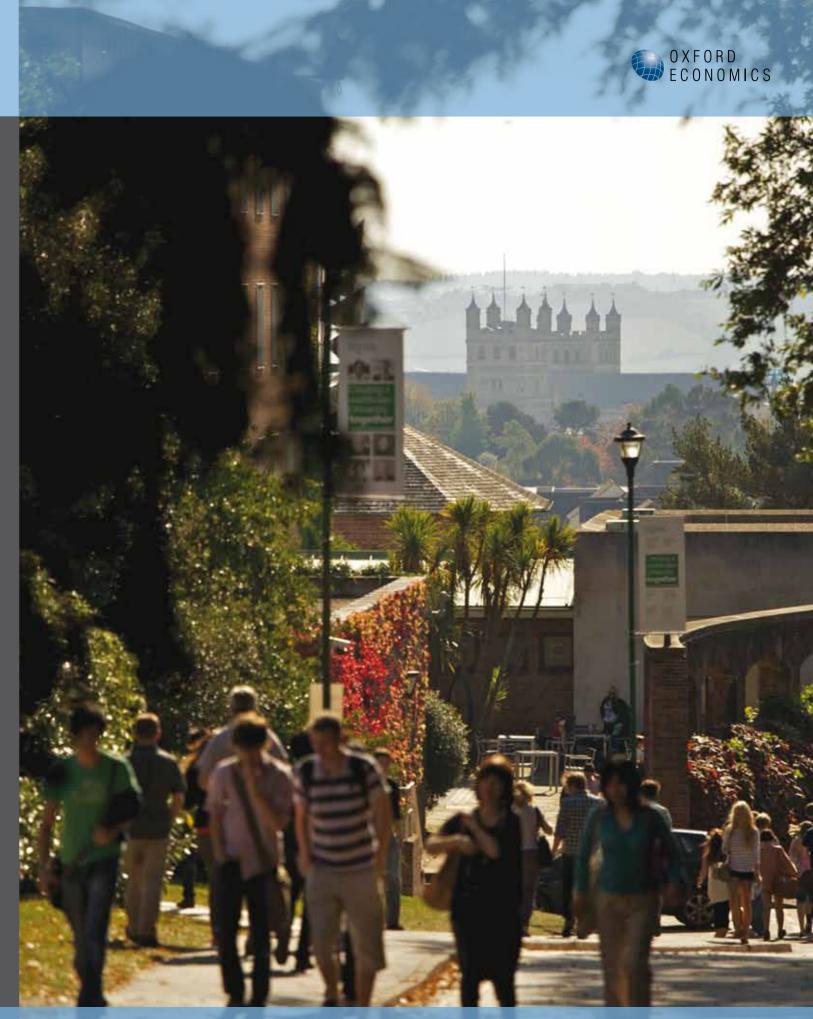
Chart 2.1: Share of tuition fee revenue from international students 2011/12 by origin/level



Source: Oxford Economics/University of Exeter

From this fee income, we have estimated the direct contribution to local (city) and regional GDP. The expenditure on fee income does not equal direct GDP. Direct GDP can be thought of as the wages paid by the University and the financial surplus that it generates before interest, taxation and depreciation. Some of the expenditure of the University consists of intermediate consumption

which spreads out to other sectors, for example electric power or cleaning services, and therefore, is not classified as direct local or regional GDP. The conversion from the figure for expenditure on fees to the University's direct GDP impact uses the ratio between expenditure and GDP in education from our Exeter and South West input-output² tables.



Total GDP contribution is composed of direct, indirect, and induced GDP

Input-output tables show the purchases that a sector, such as education, makes from other sectors of the economy







Having estimated the *direct* contribution to GDP, we then estimated the multiplier impact on GDP that is attributable to fee income using the same input-output tables. The multipliers capture:

 Indirect impacts – employment and activity supported in the local or regional supply chain, as a result of purchases of goods and services from local suppliers. Induced impacts – employment and activity supported by those individuals directly or indirectly employed spending their incomes on goods and services in the local economy. This helps to support jobs in the industries that supply these purchases, and includes jobs in retail outlets, companies producing consumer goods and in a range of service industries.

Summing each of these impacts gives the **total** contribution to GDP.

Table 2.2: Contribution to GDP of tuition fee revenue from international students 2011/12 (£ million)

Fees: Contribution to GDP	Exeter (£m)	South West (£m)
Direct Effect	37.7	38.9
Indirect Effect	1.3	4.4
Induced Effect	7.4	11.3
Total GDP Contribution	46.4	54.6

Source: Oxford Economics/University of Exete

Table 2.2 presents the contribution of international student tuition fees to the GDP of both Exeter and the South West. Utilising the output-to-GDP ratio for education, the £54.9 million expenditure made by international students on course fees will translate to a direct GDP contribution of an estimated £37.7 million in Exeter and £38.9 million in the South West region. Although all tuition fee expenditure will accrue to the University of Exeter, the difference in the figures is due to a small presence of international students based at the University's Cornwall Campus. Located near Falmouth, approximately 215 international students are permanently based in Cornwall and for the purposes of this research we have assumed their contribution to tuition fees supports economic activity only in the South West region. In addition, as the impact of spending related to the University and students spreads outside Exeter, differences also emerge at the indirect and induced effect levels.

The payment of £54.9 million in tuition fees by international students at the Universities of Exeter will contribute a total of approximately £46.4 million in GDP to Exeter's economy. By contrast, the same expenditure will contribute £54.6 million to the South West economy. The indirect and induced contributions to the South West economy are relatively larger than that for Exeter alone, as some expenditure by the University results in purchases outside the city, but within the confines of the wider regional economy. For example, the purchase of goods and services by the University from a supplier in Somerset creates GDP which is not captured in the Exeter economy, but is captured in the South West regional economy.

Overall, expenditure on fees by international students in Exeter generates a total GDP multiplier of 1.23 in the Exeter economy. The GDP multiplier for the South West economy from the same expenditure is higher at 1.40, due to these regional supply chain effects.

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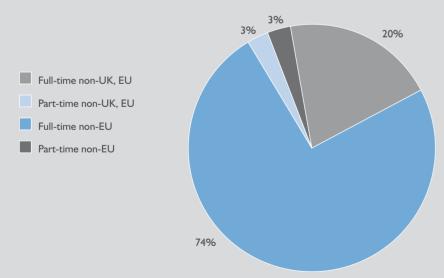
Subsistence

Subsistence spending refers to all spending by international students on goods and services other than on their tuition fees. It includes, for instance, expenditure on food, rent, travel and entertainment, as well as expenditure on books and other course materials. For estimating subsistence expenditure, we have made use of the Student Income and Expenditure Survey (SIES) published by the Department for Business, Innovation & Skills. The SIES provides a wealth of information on the spending habits of both full- and part-time students, indentifying the key areas in which these students make purchases. As this survey makes no distinction between domestic and international students, we have adjusted the overall spending figure for students to reflect the different mode of study of international students compared to domestic students.

The latest available SIES is for the 2007/08 academic year, therefore, the SIES figures were adjusted to obtain expenditure estimates for the 2011/12 academic year using the Consumer Price Index (CPI) in the UK.

In the 2011/12 academic year 5,477 international students are based at the University of Exeter undertaking full- or part-time study.³ International students represent 30% of the total University student population. Most international students (94%) are engaged in full-time study, with nearly three-quarters of all international students coming from Non-EU nations and studying full-time (Chart 2.2). For the balance undertaking part-time study, 55% are from outside the EU.

Chart 2.2: International students at the University of Exeter 2011/12



Source: Oxford Economics/University of Exeter



³The figure for international students equates to all Non-UK students at the University of Exeter, which includes students originating from the Channel Islands but excludes those students on the EdD TESOL programme in Dubai.





This estimate of subsistence expenditure provides the base for the calculation of the *direct* contribution to local and regional GDP. Expenditure does not equal *direct* GDP, because some of the goods and services bought by the students would be sourced from outside the city and outside the wider South West region. However, students will also spend their money, for instance, on local services such as transportation, pubs and restaurants employing local people, therefore contributing to direct regional GDP. Again, we have estimated what proportion of

expenditure directly contributes to local and regional GDP, using regional input-output tables.

This estimate of the direct contribution to local and regional GDP allows us to calculate the multiplier impacts on local and regional GDP that stem from purchases of supplies made by businesses patronised by international students. Summing the direct and multiplier effects gives the total contribution to local and regional GDP.

Table 2.3: Contribution to GDP of subsistence spending by international students 2011/12 (£ million)

Subsistence: Contribution to GDP	Exeter (£m)	South West (£m)
Total International Subsistence expenditure	60.8	63.3
Direct Effect	34.7	36.2
Indirect Effect	1.8	6.2
Induced Effect	2.7	4.3
Total Subsistence GDP Contribution	39.2	46.6

Source: Oxford Economics

Table 2.3 presents the estimates for expenditure by international students in Exeter for the 2011/12 academic year. It is estimated that total spending by international students at the University of Exeter (including those based in Cornwall) will be £63.3 million. However, at least some of that expenditure is likely to be on imports and so will not result in a boost to the local or regional economies. Accounting for this we estimate that the boost to GDP in 2011/12 from student spending will be approximately £34.7 million in Exeter and £36.2 million in the South West.

When local supply chains and employee expenditure are taken into account the boost to Exeter's GDP generated by the subsistence expenditure of

international students at the University's of Exeter will grow to an estimated £39.2 million. This results in a GDP multiplier for subsistence spending of 1.13 in Exeter. As seen with expenditure on fees, the total boost to the South West economy from subsistence spending is greater than that experienced by Exeter, due to lower leakage levels – that is fewer of the purchases made are on goods and services from outside the geography under consideration. In total, the subsistence spending of international students at the University of Exeter will boost the South West regional GDP by an estimated £46.6 million; a GDP multiplier of 1.29.

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Additional visitor impact

The final element of the calculation of the impact of international students at the University of Exeter is the expenditure by friends and relatives from abroad visiting international students who were domiciled in Exeter during 2011/12. The source used for this data is the International Passenger Survey (IPS). This provides detailed expenditure by various types of visitor to the UK as a whole, to the South West region and also to the city of Exeter, including data on those who describe the primary reason for their journey as visiting friends and relatives. The data is also partially broken down by the country of origin of the visitors. However, there are three areas in which the data is still insufficiently detailed:

• The IPS data merely specifies that visitors are visiting friends and relatives. It does not specify who their friends and relatives are, or whether or not they are students. We have assumed here that visitors are all visiting foreign nationals from their own country and that the percentage of these visits that are to students are proportionate to the percentage

of the population of that nationality that is made up of students. For example, by assuming that the population share of US-nationals living in the South West identified by the 2001 Census remains constant, the most recent population figures suggests that there were over 11,000 persons of US citizenship living in the South West in 2011, while the University of Exeter data shows that there were slightly less than 150 US students in Exeter at that time. Consequently we have assumed that around 1.3% of the American visitors to the South West in 2011/12 who claimed to be visiting friends or relatives were visiting students in Exeter.

 Finally, the IPS data does not specify where within Exeter / the South West visitor spending takes place.
 Therefore, we have assumed that those visiting students at the University of Exeter conduct all their spending in Exeter, with the exception of visitors to students based in Cornwall.

Table 2.4: Spending by visitors to Exeter visiting international students in Exeter 2011/12 (£ million)

Additional Visitors: Contribution to GDP	Exeter (£m)	South West (£m)
Total Additional Visitor Expenditure	4.7	4.9
Direct Effect	2.3	2.4
Indirect Effect	0.1	0.5
Induced Effect	0.2	0.4
Total Additional Visitors GDP Contribution	2.7	3.3

Source: Oxford Economics

Table 2.4 shows our estimates for the total amount of spending by visitors to Exeter whose primary reason for entry is to visit a student. Total expenditure by all such visitors to Exeter in 2011/12 is estimated to be £4.7 million, while the equivalent figure in the South West is £4.9 million (including those students permanently based in Cornwall). However, as some of this expenditure will be on goods and services sourced from outside the city and the South West region, the impact upon GDP will be lower. Adjusting for this we find that the impact upon

GDP will be approximately £2.3 million in Exeter and £2.4 million in the South West. Spending by visitors of students in Exeter has a GDP multiplier of 1.17. Thus, the additional visitors attracted by international students at the University of Exeter will boost Exeter GDP by an estimated £2.7 million in the academic year 2011/12. Once again the corresponding GDP multiplier for the South West is greater, at 1.38. Consequently, the GDP boost experienced by the South West region as a result of these additional visitors will be approximately £3.3 million.







Total contribution to Exeter and South West GDP

The overall estimated contribution to GDP is summarised in Table 2.5 and Chart 2.3. The total impact of international students studying at the University of Exeter on the GDP of Exeter in 2011/12 will be an estimated £88.3 million (at current prices). The largest contribution will be from the payment of tuition fees, which is estimated to be £46.4 million (equivalent to 53% of total GDP

contribution); subsistence expenditure by students is estimated to contribute £39.2 million (44%), while the impact of spending by visitors will be relatively minor £2.7 million (3%). In the context of the economy of Exeter, the GDP boost generated by international students at the University of Exeter will equal 2.1% of total GDP.

Table 2.5: Overall contribution to GDP by international students 2011/12 (£ million)

Overall GDP Contribution by international students 2011/12	Exeter (£m)	South West (£m)
Fees		
Direct Effect	37.7	38.9
Indirect Effect	1.3	4.4
Induced Effect	7.4	11.3
Total	46.4	54.6
Subsistence spending		
Direct Effect	34.7	36.2
Indirect Effect	1.8	6.2
Induced Effect	2.7	4.3
Total	39.2	46.6
Additional visitors		
Direct Effect	2.3	2.4
Indirect Effect	0.1	0.5
Induced Effect	0.2	0.4
Total	2.7	3.3
Overall Total GDP Contribution	88.3	104.4

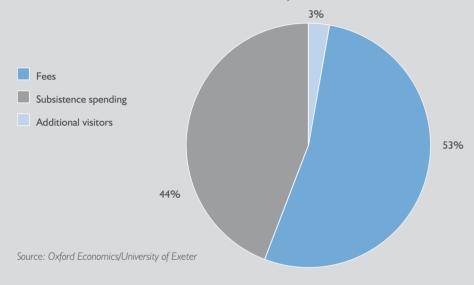
Source: Oxford Economics

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Table 2.5 also presents the total GDP contribution of international students at the University of Exeter on the economy of the South West region. The overall GDP impact in 2011/12 will be an estimated £104.4 million (at current prices). As with the results for Exeter the payment

of tuition fees will be the largest contributor, equalling £54.6 million. Subsistence spending by students will contribute a further £46.6 million, while additional visitors will generate a GDP boost of approximately £3.3 million.

Chart 2.3: Overall contribution to Exeter's GDP by international students 2011/12



Impact on employment

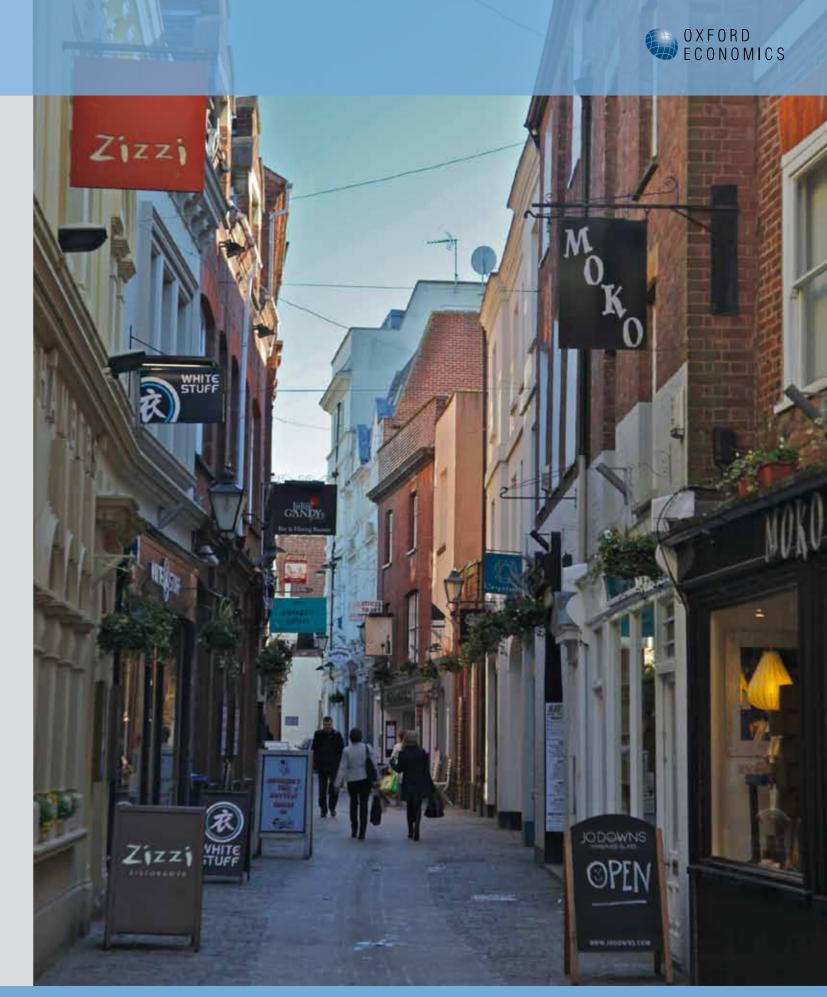
The impact of international students on employment can be derived by dividing the GDP figure by an estimate for the productivity of employees in the South West region. As with the GDP impacts it is possible to calculate the direct, indirect and induced employment impacts. At each level of impact we use the productivity of the industry in which spending is taking place, which we determine using input-output analysis. For example, to calculate the direct employment generated by fees we have used an estimate of GDP per employee in higher education (which is in the order of £28,000 of GDP per employee).

Table 2.6 displays the results of these calculations, suggesting that the GDP generated directly from international students at the University of Exeter will support an estimated 2,480 jobs in Exeter and 2,570 in the South West. International students in Exeter will support an estimated total of 2,880 jobs in the city through supply chain (indirect) and employee spending effects (induced). This equates to approximately 2.8% of Exeter's workforce. In the South West region as a whole, the spending of international students in Exeter will support an estimated 3,280 jobs.

Table 2.6: Overall employment supported by international students 2011/12

Employment supported	Exeter (jobs)	South West (jobs)
Direct Effect	2,480	2,570
Indirect Effect	70	230
Induced Effect	330	480
Total employment supported	2,880	3,280

Source: Oxford Economics



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The Economic Impact of the University of Exeter's International S



Catalytic effects of international students on Exeter's GDP

The main focus of the report is on the direct and more easily measurable impacts of international students upon Exeter's economy. However, we will conclude by saying something about other effects which will be longer term, are more intangible and so are less quantifiable, but will nevertheless ultimately have a very real impact upon the economies of Exeter, the South West and the UK. We have termed these economic benefits, which result from the social and cultural links that build up as a result of international students studying in Exeter, 'catalytic effects'. They include:

 The injection into the workforce of additional well educated, highly skilled and dynamic workers. However, even if these students return home rather than seeking employment in Exeter, the links that they establish with the city could materialise in other ways. For instance, some may work for UK-based companies later in their careers and the language and other social skills that they will have acquired in their time as students will undoubtedly be beneficial.

- International students who studied in Exeter are also likely to develop a predilection for UK products both in their personal and professional lives. Over time this should act as a boost to UK exports.
 - Indeed the benefits of these personal links should not be underestimated. Many of these international students will return home to eventually play important roles in their country. So a predilection for or even bias in favour of anything British will potentially have a considerable impact upon the UK economy.

Comparing 2012 to 2010

The 5,477 international students at the University of Exeter will contribute an estimated £54.9 million in tuition fees in 2011/12. This compares with a figure of £30.3 million from 4,000 international students in 2009/10 and represents an increase in receipts of 81%.

This higher number of international students translates into an increase in the GDP impact of the University of Exeter's ability to attract students from outside the UK. Table 2.7 and 2.8 summarise the change in the total effects from 2009/10 to 2011/12 by category of impact.

For Exeter the increase in importance of international students between 2009/I0 and 2011/I2 translates into an increase of an estimated 54% in the GDP

contribution that they make, rising from £57.4 million to £88.3 million. Two factors have acted as a brake on this increase. The latest input-output data shows that the multipliers from the direct GDP effects are lower than those applied in 2009/10. Additionally, the new level of detail available from the IPS for calculating the level of subsistence expenditure has resulted in a greater degree of accuracy, albeit a lower spending impact, compared to 2009/10. Thus, while the GDP contribution from fees from international students shows an increase of 67%, that for subsistence spending has only risen by 61%; while the additional visitor contribution to Exeter's GDP has fallen by 48% from £5.2 million to an estimated £2.7 million.

Table 2.7: Overall GDP contribution to Exeter 2009/10 and 2011/12 compared

Overall contribution by international students Exeter	(£m) 2009/10	(£m) 2011/12	(% change)
Fees Direct Effect Indirect Effect Induced Effect Total	21.9	37.7	72%
	0.9	1.3	44%
	4.9	7.4	51%
	27.7	46.4	67%
Susbsistence spending Direct Effect Indirect Effect Induced Effect Total	20.4	34.7	70%
	1.2	1.8	53%
	2.8	2.7	-4%
	24.4	39.2	61%
Additional visitors Direct Effect Indirect Effect Induced Effect Total	4.4	2.3	-47%
	0.3	0.1	-53%
	0.6	0.2	-63%
	5.2	2.7	-48%
Overall Total GDP Contribution	57.4	88.3	54%

Source: Oxford Economic

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For the same reasons the picture for the overall impact on South West regional GDP is similar to that for Exeter. The overall contribution to the South West's GDP from international students at the University of Exeter has risen by 54% in the two years since 2009/10, from £67.8 million to an estimated £104.4 million. The contribution from fees is up by 69% and that from subsistence spending is up by 60%. The contribution to the region's GDP from additional visitors is down by 48%.

The total number of jobs supported by international students has increased from 2,120 to an estimated 2,880 in Exeter, a 36% increase; and from 2,410 to 3,280 in the South West region as a whole, also a 36% increase.

In terms of impact on Exeter's overall economy, international students enrolled at the University of Exeter now support 2.1% of the city's GDP and 2.8% of its employment, up from 1.6% and 2.3% respectively in 2009/10.

Table 2.8: Overall GDP contribution to the South West 2009/10 and 2011/12 compared

Overall GDP contribution by foreign students South West	(£m) 2009/10	(£m) 2011/12	(% change)
Fees Direct Effect Indirect Effect Induced Effect Total	21.9	38.9	77%
	3.0	4.4	48%
	7.4	11.3	52%
	32.3	54.6	69%
Susbsistence spending Direct Effect Indirect Effect Induced Effect Total	20.4	36.2	77%
	4.2	6.2	47%
	4.6	4.3	-7%
	29.2	46.6	60%
Additional visitors Direct Effect Indirect Effect Induced Effect Total	4.4	2.4	-45%
	0.9	0.5	-46%
	1.0	0.4	-65%
	6.3	3.3	-48%
Overall Total GDP Contribution	67.8	104.4	54%

Source: Oxford Economics





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