

OXFORD ECONOMICS

The economic impact of the University of Sussex

A report for the University of Sussex
December 2013



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Executive Summary

The University as an educator...

In 2012/13, 13,830 students were enrolled at the University of Sussex (12,850 on a full-time equivalent basis). While the majority of students were UK nationals, the student body was highly diverse with over 120 nationalities represented. 10,500 full-time equivalent students lived in the local area while they studied at the University. It is estimated that over 8,600 of these would have lived elsewhere if the University did not exist.

Around three-quarters of students were engaged in undergraduate study, and across all levels of study 43 per cent of all students studied a social science, 35 per cent studied a science subject, and the remainder studied humanities. 80 per cent of first degree graduates surveyed six months after leaving the University of Sussex had secured work or were engaged in full-time study.

The University as an employer...

The University is a significant employment centre for the local area, and employed 2,200 people in 2012/13 (1,960 on a full-time equivalent basis). As well as being large, the workforce is diverse: although 70 per cent of employees were UK nationals, at least 66 other nationalities were represented. 43 per cent of University employees were engaged in academic or clinical activity, and 72 per cent of staff lived in the local area.

The economic impact of the University...

The University of Sussex generates significant economic benefits for the local, regional and national economies through its own activities; the subsistence spending of students that would not otherwise have been in these areas; and the spending of those visiting these 'additional' students. Each of these contributions stimulates further activity in supply chains, and the wage-induced spending of those employed as a result of the University.

Taking into account all of the effects above, the University of Sussex supported total spending within the UK economy of £0.6 billion in 2012/13. This spending is, in turn, estimated to have generated a £274 million gross value added contribution to UK GDP. It also supported jobs for more than 5,300 people and tax revenue of £81 million.

The total gross value added contribution of the University to the local economy in 2012/13 was £197 million. This is equivalent to 2.6 per cent of total gross value added for Brighton and Hove and Lewes. Economic activity linked to the University supported almost 3,700 jobs in the local area. The University's gross value added contribution to the local area included:

- a direct value-added contribution of £124 million from the University's own activities, and an indirect contribution of £8 million as a result of the University's £16 million of procurement spent amongst local suppliers. The spending of those employed at the University and in the local supply chain generated a further induced value added contribution of £15 million;
- a £47 million value added contribution as a result of spending by students who would not have been in the local area in the absence of the University (including supply chain and induced wage consumption effects); and
- a £4 million value added contribution as a result of spending by those visiting students who would not otherwise have been in the local area (including supply chain and induced wage consumption effects).

Under the assumption that the University achieves the targets set out in its 2013-18 Strategy, it is projected to support over £1 billion of expenditure within the UK economy by 2017/18 (after

adjusting for inflation). This expenditure is estimated to generate a £462 million gross value added contribution to UK GDP. The University's total gross value added contribution to the local economy is projected to increase to £285m in 2017/18, and the number of local jobs supported by the University is predicted to increase by more than 1,600 to 5,350.

The University as a research hub...

The University of Sussex has a rich history as a centre of research. Over the last fifty years the University has counted three Nobel Prize winners, 14 fellows of the Royal Society, six fellows of the British Academy and a winner of the Crafoord Prize amongst its staff. Over 90 per cent of Sussex research activity was rated "world-leading", "internationally excellent", or "internationally recognised" in the most recent Research Assessment Exercise.

The University received £27 million of research funding in 2012/13, half of which came from UK Research Councils. 42 per cent of research income went to the Life Sciences. Staff and students produced 3,900 research outputs in 2012/13, two-thirds of which were academic articles. The University had 69 patents in its portfolio at the end of July 2013, just over three quarters of which came from the School of Engineering and Informatics. The University is also active in engaging with industry both directly and via PhD students' participation in the CASE studentships programme.

The University as a national and international gateway...

The role of the University in bringing visitors to the local area extends far beyond students, and those visiting students. A significant number of UK and overseas visitors come to the University of Sussex to attend conferences, summer courses, or make use of University accommodation during the summer vacation. It is estimated that visitors in these categories spend £2.1 million in the local economy. Conferences and other events at the University of Sussex can also have wider benefits by promoting the University and local area through media coverage and creating a positive experience that may lead to additional visits in future.

The University as a neighbour...

The local contribution of the University extends far beyond its economic impact. In 2012/13 the University ran more than 230 events with schools and colleges to encourage participation in higher education, particularly amongst those who would not traditionally go on to university. These events were attended by more than 12,000 people. In addition, University of Sussex students provided more than 4,500 hours of tutoring and mentoring in schools.

Over 1,000 University of Sussex students worked as volunteers during 2012/13, either to enhance student life through the activities of the Student's Union, or to support local community organisations.

The local economy and community also benefits from access to University facilities, such as the Sussex Innovation Centre, which plays a significant role in local economic development; the University Sports Centre; modern languages courses; and the University's contribution to "The Keep" resource centre.

1 Introduction

A university makes a significant economic and social impact to the surrounding community. It supports employment, both directly through the people it employs, and indirectly through its purchases of goods and services. Students and staff provide trade for local businesses, and once students have graduated they may join the local labour market. Moreover, students and staff act as informal ambassadors and raise the profile of the university in its local area and overseas. University students often volunteer at community groups, and a university may work with local schools and colleges to encourage students from families with little experience of higher education to continue their studies. Research conducted at the university can have far reaching benefits for society as a whole.

The University of Sussex was the first of the new wave of UK universities founded in the 1960s. It now has 13,830¹ students and 2,200 staff (12,850 and 1,960 respectively on a full-time equivalent basis). Over 90 per cent of the research submitted by the University of Sussex to the '2008 Research Assessment Exercise' was rated as "world leading", "internationally excellent" or "internationally recognised". Additionally, the University of Sussex engages with local business and its community through activities such as the Sussex Innovation Centre, public lectures and modern language courses.

1.1 Purpose of report

This report investigates the economic and social impact of the University of Sussex in its local area² and the South East region. Where possible, impacts have been quantified for the 2012/13 financial year.³

The remainder of this report is divided into six sections to highlight the different ways the University contributes to the local economy:

- Chapter 2 explores the function of the **University as an educator**, detailing the composition of the current student body and the role alumni play in the labour market.
- Chapter 3 highlights the role played by the **University as an employer**.
- Chapter 4 calculates the **economic impact of the University**, through its current and capital spending, the spending of its students, and the spending of visitors to the University and its students. This Chapter also includes a projection of the University's economic impact in 2017/18, on the assumption that the growth targets set out in the 2013-18 Strategy are achieved.
- Chapter 5 outlines the position of the **University as a research hub**.
- Chapter 6 assesses the **University as a national and international gateway** for the local area, through the conferences it hosts, the summer schools it runs and the accommodation it provides for other visitors to the area.
- Chapter 7 focuses on the benefits received by the local community through having the **University as a neighbour**, in particular the University's schemes for widening access to education, the value of student volunteering and the benefits derived from the University's facilities.

¹ Includes students at the Brighton and Sussex Medical School

² The local area for Sussex University is defined as the area covered by Brighton and Hove City Council and Lewes District Council

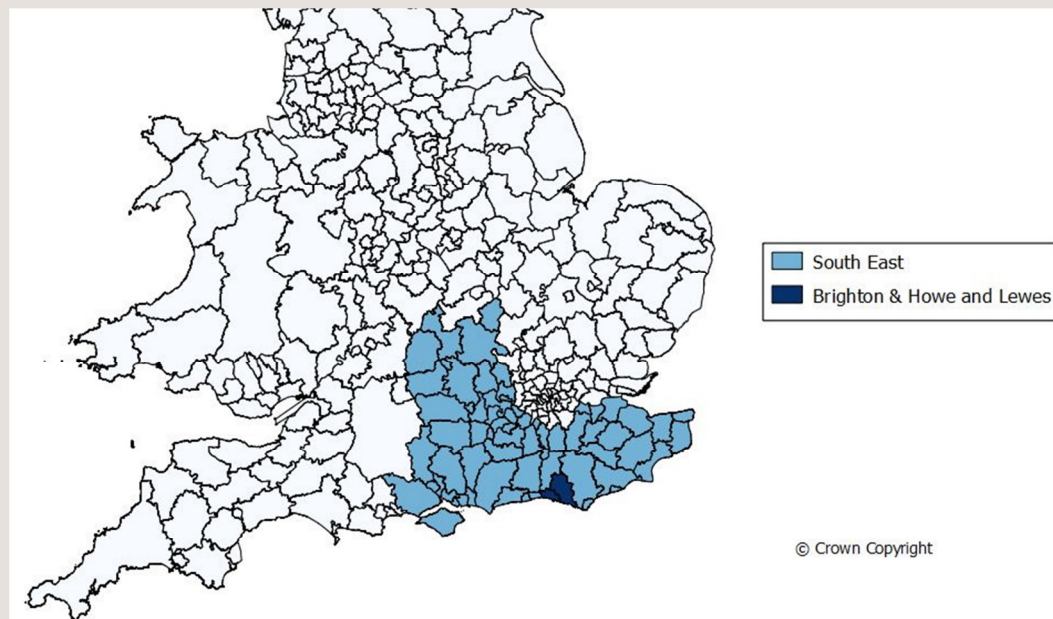
³ The 2012-13 financial year for the University of Sussex ran from 1 August 2012 to 31 July 2013.

Defining the geographical areas used in this report

Throughout this study the local area Sussex University resides within is defined as that covered by Brighton and Hove City Council and Lewes District Council (shaded dark blue in Figure 1.1). According to the 2011 Census, 370,871 people lived in the area, of whom 199,047 were economically active. In 2011, 14,110 businesses were located in the area.⁴

The wider comparison area is the South East region (shaded light blue in Figure 1.1). In 2011, the population of the region was 8.6 million, of whom 4.5 million were economically active.

Figure 1.1: University of Sussex local area and the South East



The local area is a part of the South East region, so any impacts quoted for the South East are inclusive of the impact on the local area.

⁴ ONS Business Counts – Enterprises

2 The University as an educator

Key points

- In 2012/13, 13,830 students were enrolled at the University of Sussex (12,850 on a full-time equivalent basis). While the majority were UK (71 per cent) nationals, the student body was highly diverse with over 120 nationalities represented.
- Around three-quarters of students were engaged in undergraduate study, and across all levels of study 43 per cent of all students studied a social science, 35 per cent studied a science subject, and the remainder studied humanities.
- 80 per cent of first degree graduates surveyed six months after leaving the University of Sussex had secured work or were engaged in full-time study.
- Amongst first degree graduates who were in work, around one quarter were employed in the local area, confirming the University's role as an important supplier of high-skilled labour to the local economy.

2.1 The student body in 2012/13

In 2012/13, 13,830⁵ students were enrolled at the University of Sussex (12,850 on a full-time equivalent basis). The University accounted for over five per cent of all higher education students within the South East⁶.

2.1.1 Where students came from

Over two thirds of the student body in 2012/13 were from the UK, with the largest numbers drawn from the South East (54 per cent) and London (23 per cent). Almost a quarter (22 per cent) of the student body came from the local area, the vast majority from Brighton and Hove.

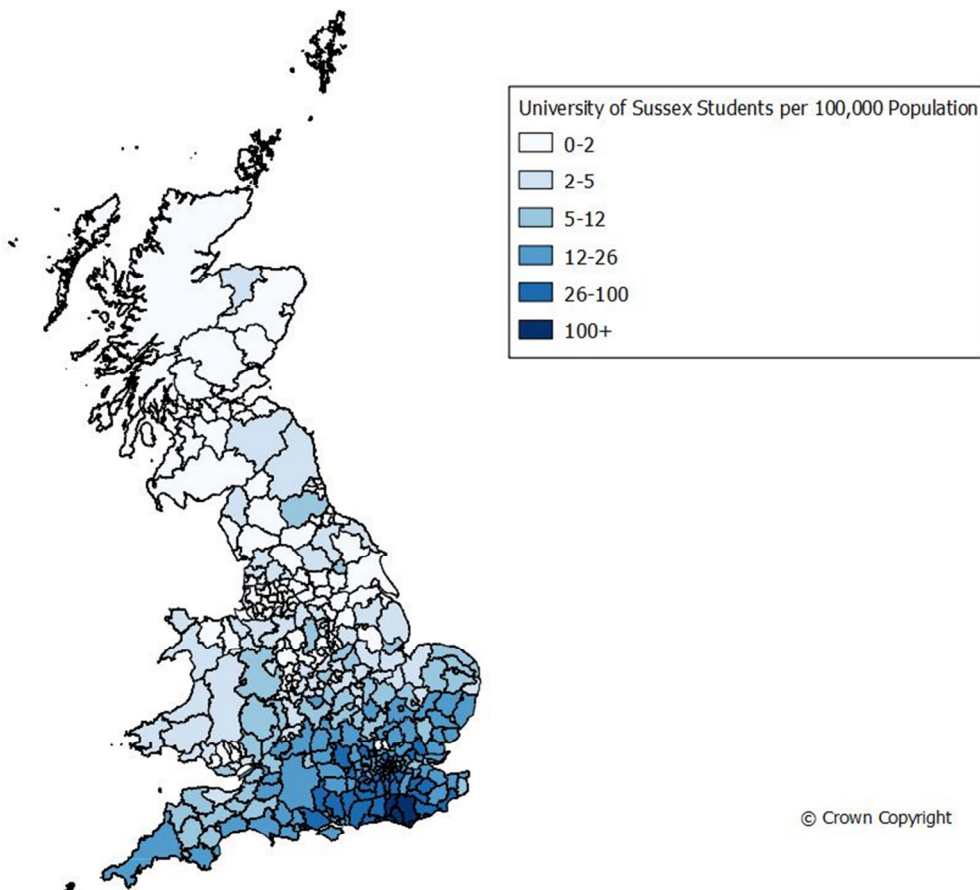
A further measure of the University's draw is its penetration rate across the UK (measured as the number of University of Sussex students per 100,000 of population). As might be expected, the University's penetration is greatest in nearby local authority districts, though it remains high throughout the South East region (Figure 2.1).

While the majority of students were UK nationals, the student body was highly diverse with over 120 nationalities represented. The largest number of overseas students came from China (23 per cent), followed by Hong Kong (11 per cent). The rest of Asia accounted for 34 per cent (Figure 2.2). Africa supplied 10 per cent of non-UK students (46 per cent of the students within this share were from Nigeria), and the Americas and Europe (excluding the UK) accounted for 10 per cent and 8 per cent respectively.

⁵ Includes students at the Brighton and Sussex Medical School

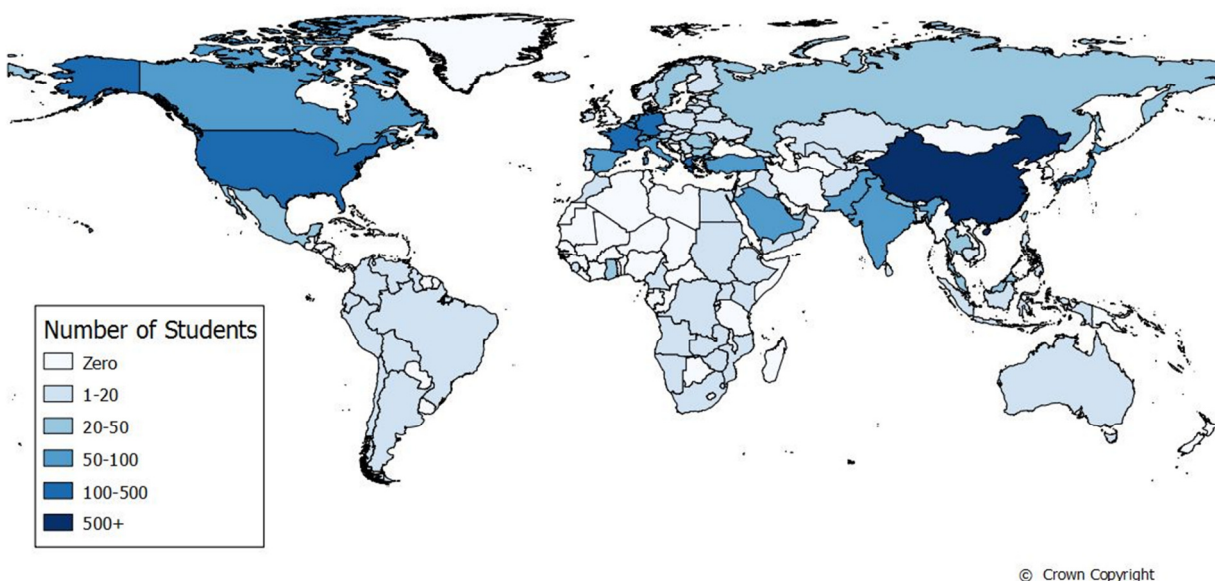
⁶ The Open University has been excluded from this analysis.

Figure 2.1: Student penetration rate of the University of Sussex in 2012/13



Between 2009/10 and 2011/12, the University saw strong growth in overseas undergraduates (78 per cent) and overseas taught postgraduates (100 per cent). This has been due to a number of factors including reputational improvement, enhanced marketing effort and an effective entry-pathway partnership with Study Group International (SGI).

Figure 2.2: Nationalities of non-UK students at the University of Sussex in 2012/13



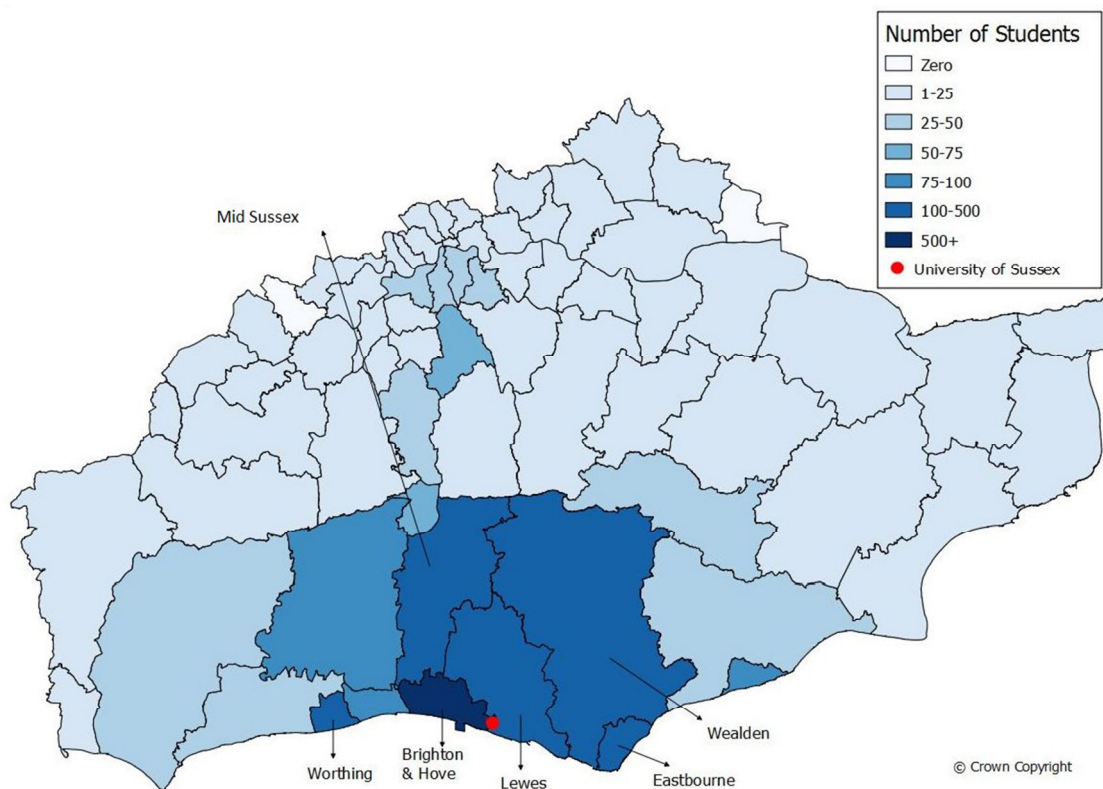
2.1.2 Where students live during term-time

University data on term-time addresses indicate that in 2012/13 10,477 full-time equivalent students lived in the local area while they studied at the University. Oxford Economics estimate that 8,649 of these would have lived elsewhere if the University did not exist⁷.

Significant numbers of students also lived in the surrounding districts of Mid Sussex, Wealden, Eastbourne and Worthing (Figure 2.3).

Figure 2.3: Distribution of students' term-time addresses in 2012/13

Numbers of full-time equivalent students

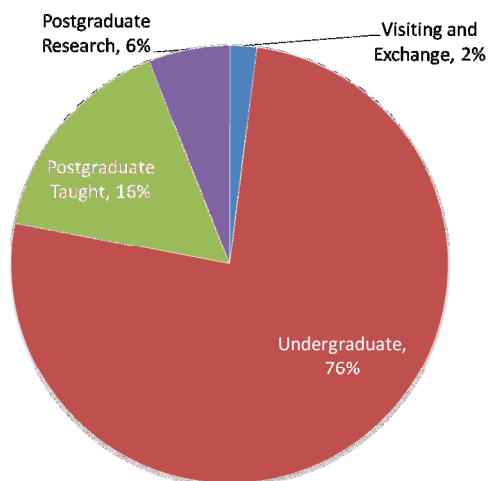


2.1.3 What students studied

In 2012/13 the majority (76 per cent) of students were engaged in undergraduate study. 22 per cent were engaged in postgraduate study, and the remaining 2 per cent were either visiting overseas students or on exchange, primarily through the Erasmus scheme (Chart 2.1).

⁷ Comparison of home and term time postcodes enables the identification of the proportion of students who have come in to the local to attend university.

Chart 2.1: University of Sussex student population by study mode in 2012/13

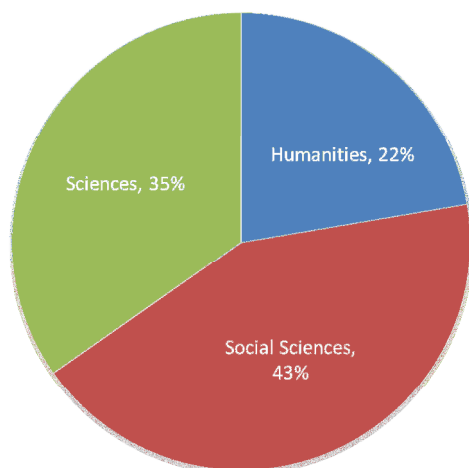


Source: University of Sussex

The most popular discipline area at the University in 2012/13 was Social Sciences, which accounted for 43 per cent of all students (Chart 2.2). The second largest discipline area was the Sciences (35 per cent) followed by the Humanities (22 per cent).

Within Social Sciences, business, management and economics made up 41 per cent of the students. Life sciences and psychology made up 44 per cent of all students in the Sciences and 31 per cent of the Humanities comprised of English students.

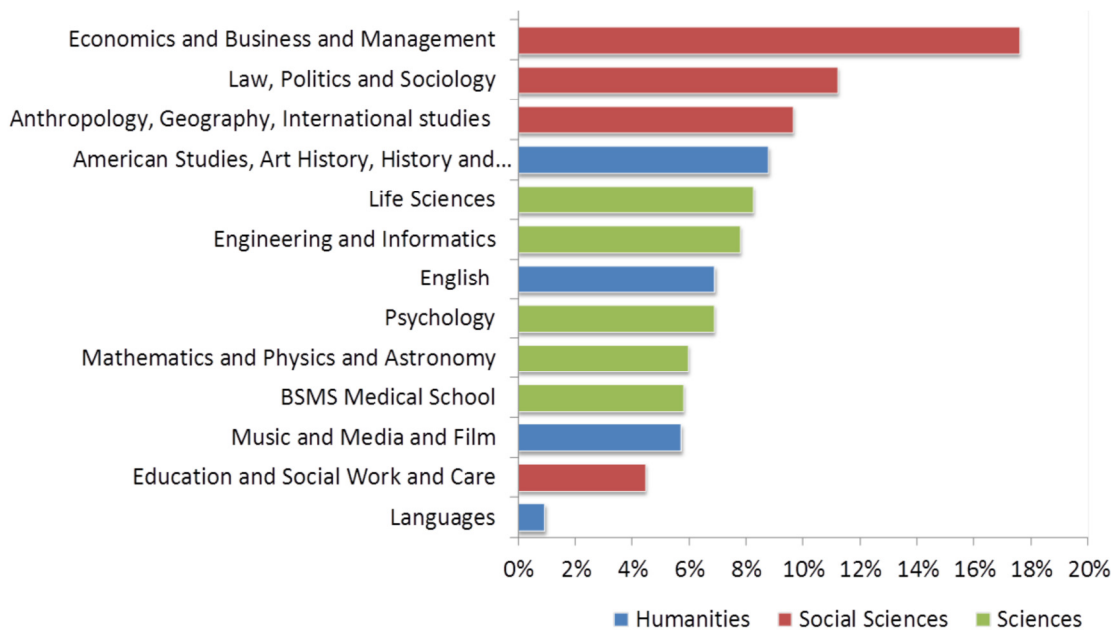
Chart 2.2: The University of Sussex student population by school of study in 2012/13



Source: University of Sussex

The most popular areas of study were all in the Social Sciences discipline area, most notably economics, business and management; law, politics and sociology; and anthropology, geography and international studies (Chart 2.3).

Chart 2.3: The University of Sussex student population by degree discipline in 2012/13

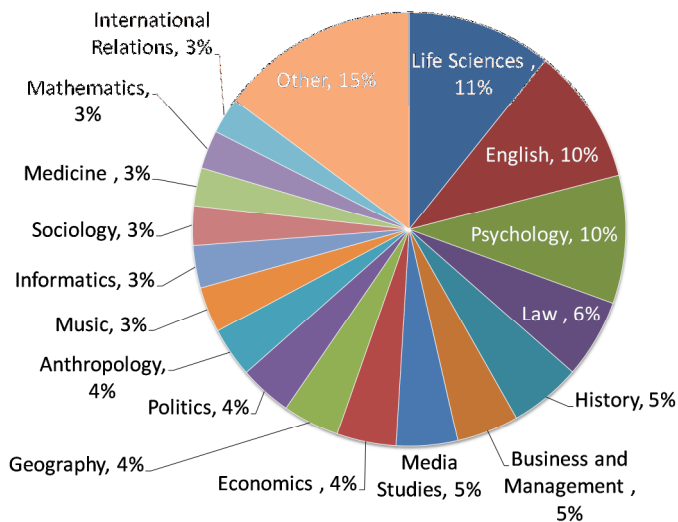


Source: University of Sussex

2.2 University of Sussex graduates

2012 first degree graduates surveyed six months after leaving the University had completed courses in a broad range of subjects. The largest numbers of graduates had studied life sciences (11 per cent), English (ten per cent), psychology (ten per cent) and law (six per cent) (Chart 2.4).

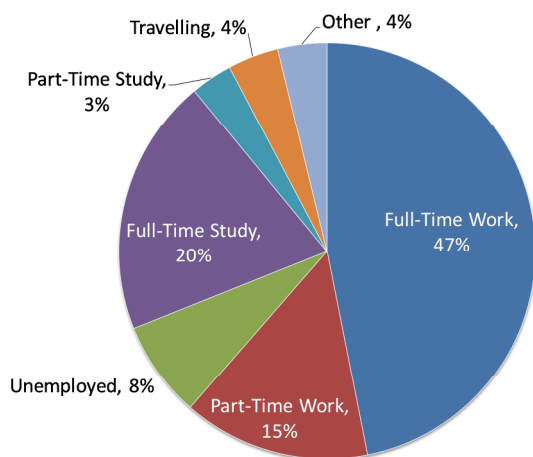
Chart 2.4: Courses completed by 2012 University of Sussex graduates



Source: University of Sussex

Destination of Leavers from Higher Education⁸ data show that just under half of 2012 first degree graduates were engaged in full-time work six months after leaving the University. One fifth of first degree graduates had continued with full-time further study and 15 per cent were engaged in part-time work. Eight per cent of graduates were unemployed, four per cent were travelling, and three per cent were in part-time study (Chart 2.5).

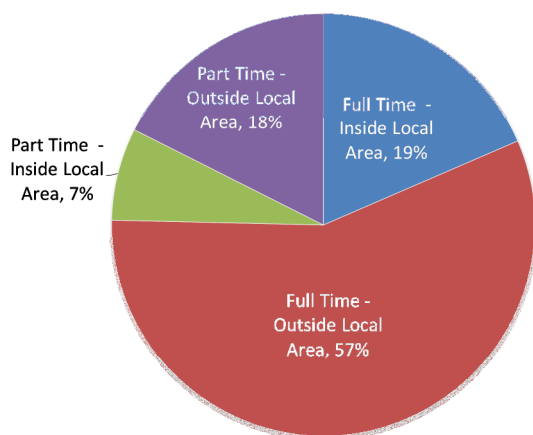
Chart 2.5: Destination of 2012 University of Sussex first degree graduates, surveyed in January 2013



Source: University of Sussex

Of the first degree graduates who were in work, around one quarter were employed in the local area on either a part-time or full-time basis, highlighting the significance of the University as a source of high-skilled labour for the local economy. A further 57 per cent of graduates who were in work were employed on a full-time basis outside the local area (Chart 2.6).

Chart 2.6: Destination of 2012 first degree graduates in employment, surveyed in January 2013

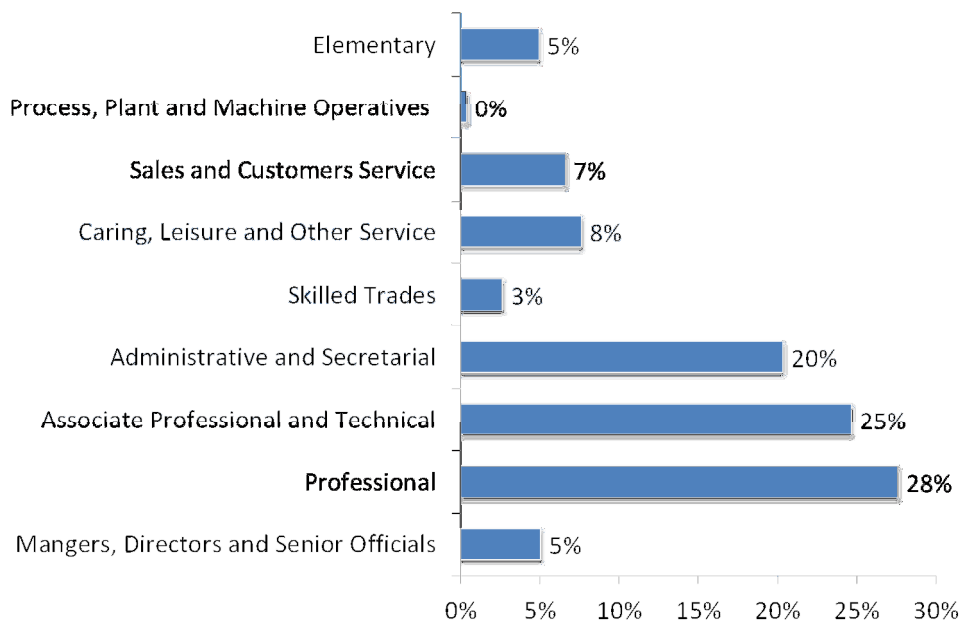


Source: University of Sussex

⁸ DLHE data are based on a survey conducted by the Higher Education Statistics Agency

The majority (73 per cent) of first degree graduates engaged in full-time work have joined one of three occupational groups: professional (28 per cent), associate professional and technical (25 per cent), or administrative and secretarial (20 per cent) (Chart 2.7).

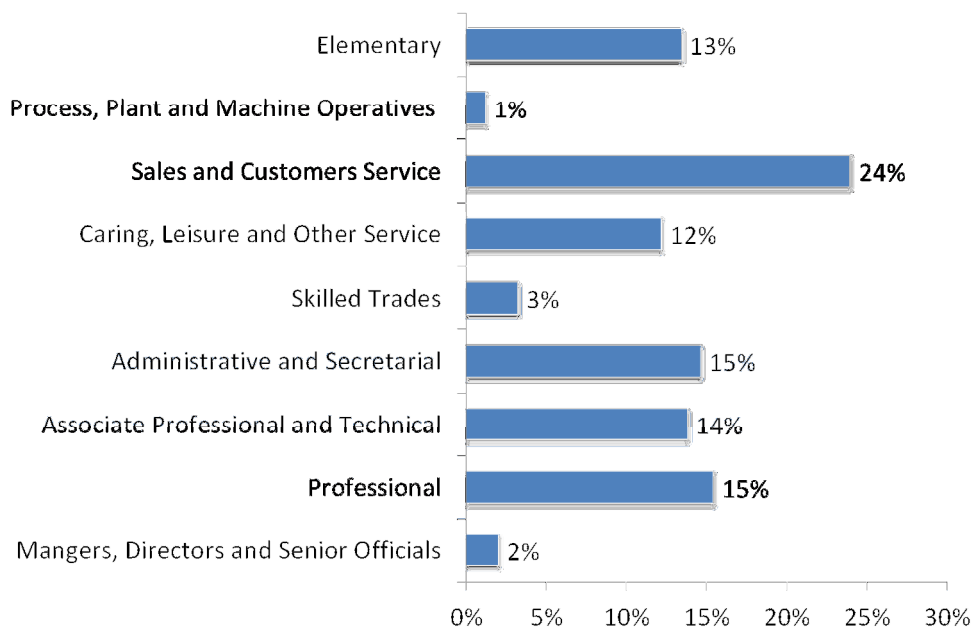
Chart 2.7 Occupations of 2012 first degree graduates in full-time work, surveyed in January 2013



Source: University of Sussex

Just less than one quarter of first degree graduates engaged part-time work had joined a sales and customer service occupation. Five occupations hold roughly equal shares of first degree graduates in part-time work: administrative and secretarial, professional, associate professional and technical, elementary and caring, leisure and other service (Chart 2.8).

Chart 2.8 Occupations of 2012 first degree graduates in part-time work, surveyed in January 2013

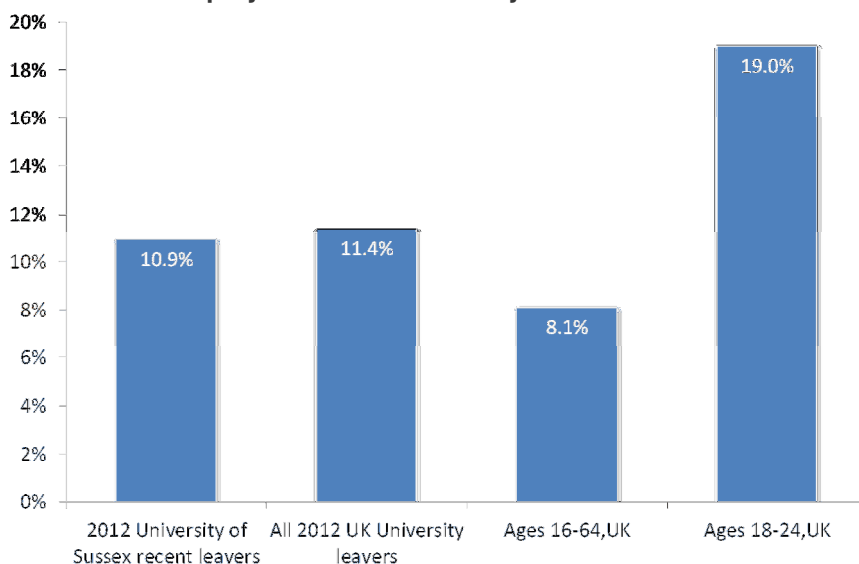


Source: University of Sussex

The unemployment rate indicates the proportion of the labour force that is unemployed, where the labour force includes all those who are either employed, or unemployed and actively seeking work.

It is therefore possible to calculate an unemployment rate amongst 2012 University of Sussex graduates using the graduate destinations data on numbers employed and unemployed. This shows that in January 2013, the unemployment rate amongst recent University of Sussex graduates was 10.9 per cent, which was slightly lower than the average for first degree graduates from all UK universities (11.4 per cent). Both figures for graduates were significantly lower than the UK average for those aged 18-24 (19.0 per cent) (Chart 2.9).

Chart 2.9: Unemployment rate in January 2013⁹



Source: University of Sussex, Oxford Economics and ONS

Chart 2.5 showed that eight per cent of University of Sussex graduates were unemployed in January 2013. That lower figure represents the unemployed as a proportion of *all* graduates surveyed. This results in a lower figure than the unemployment rate presented in Chart 2.9, which calculates the unemployed as a proportion of a smaller group – only those who were employed or unemployed. This latter definition is most commonly used in official labour market statistics.

⁹ UK average figures in chart relate to the period December 2012 to February 2013 and are taken from ONS Labour Market Statistics October 2013.

3 The University as an employer

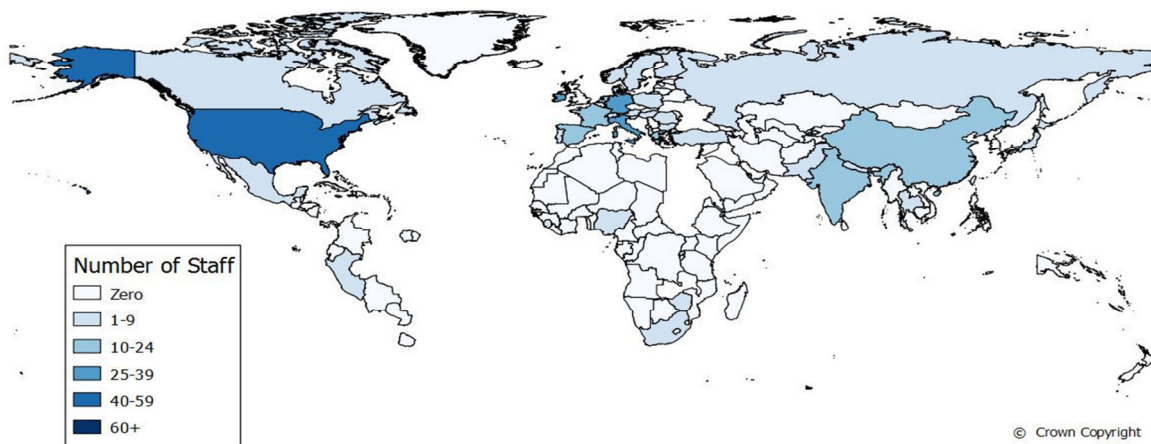
Key points

- The University employed 2,200 people in 2012/13 (1,960 on a full-time equivalent basis).
- Employees were drawn from a diverse range of backgrounds: although 70 per cent were UK nationals, at least 66 other nationalities were represented in the University’s workforce.
- 45 per cent of University employees were engaged in academic or clinical activity in 2012/13.

The University maintains a large and diverse workforce to deliver teaching and research. 2,200 people were employed in 2012/13 (1,960 on a full-time equivalent basis). 50 per cent of the University’s employees were female, compared to 47 per cent of the local area’s workforce. Although 70 per cent of employees were UK nationals, at least 66 other nationalities were represented in the University’s workforce. Just over one eighth of employees came from elsewhere in the EU, four per cent came from Asia, three per cent from the Americas, one per cent from Africa and one per cent from Australia and New Zealand. The majority (89 per cent) of employees who reported their ethnicity described themselves as “white”, the remainder classified themselves as “black or an ethnic minority”¹⁰.

Figure 3.1: Nationality of University of Sussex non-UK employees in 2012/13

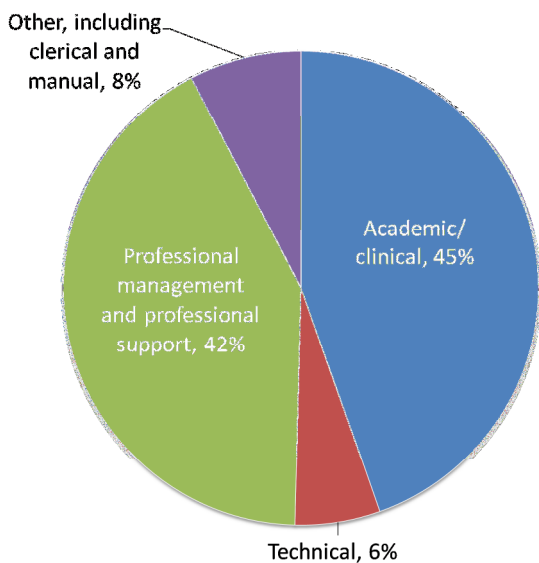
Full-time equivalent staff



45 per cent of the University’s employees were engaged in academic or clinical activity in 2012/2013; 42 per cent comprised of professional management and support; and six per cent were technical staff (Chart 3.1).

¹⁰ Note that for 497 staff members ethnicity data was not provided.

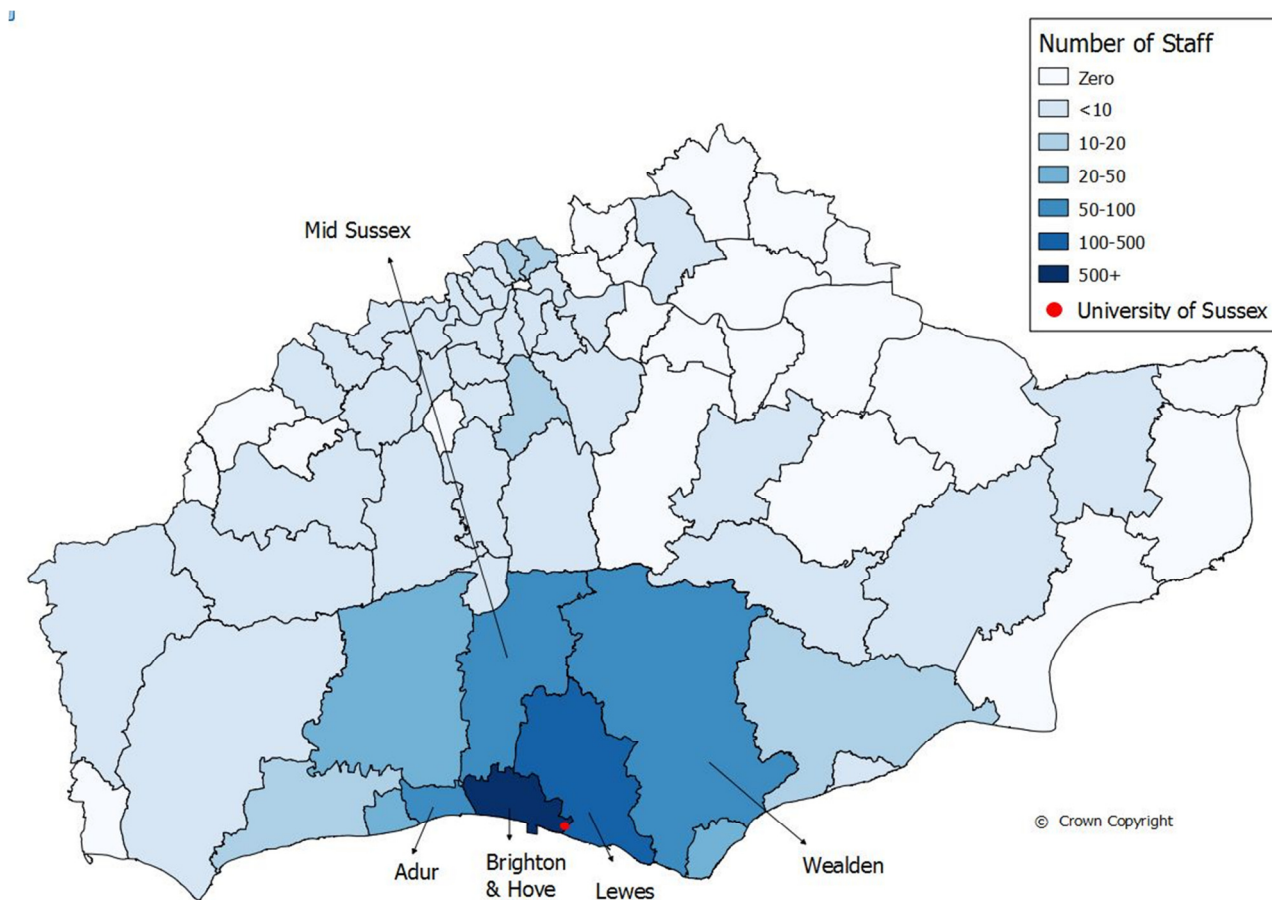
Chart 3.1: University of Sussex employees by role



Source: University of Sussex

In 2012/2013 72 per cent of staff lived in the local area (Figure 3.2). As might be expected, the highest concentrations of staff live in Brighton and Hove, or Lewes. Just over 90 per cent of staff lived in the South East region.

Figure 3.2: District of residence of University of Sussex employees in 2012/13
Full-time equivalent staff



4 The economic impact of the University

The presence of the University generates significant economic benefits for the local, regional and national economies. In the case of the latter, the University of Sussex supported total spending within the UK economy of £0.6 billion in 2012/13 which, in turn, is estimated to have generated a £274 million gross value added contribution to UK GDP. This chapter sets out the individual economic impacts which contribute to these headline figures.

4.1 Introduction to economic impact analysis

Key points

- The University contributes to the local area, South East and UK economies through its own activities, the subsistence spending of students that would not otherwise be in these areas, and the spending of people visiting these 'additional' students.
- Each of these contributions impacts the economy through three channels: direct, indirect and induced effects.
- Across each of these three channels, the economic contribution of the University is measured in terms of gross value added, employment and tax receipts.

4.1.1 How the University impacts on the economy

This study investigates four ways through which the University contributes to the local, South East and UK economies:

- the activities of the University itself;
- the subsistence spending of the 'additional' students who would not be in the local area, region or country if the University did not exist;
- the spending of visitors who come to the city or region to visit these 'additional' students while they are studying at the University; and
- the impact of the University's capital spending.

4.1.2 The channels of economic impact

The study undertakes a standard economic impact assessment, looking at three forms of expenditure (Figure 4.1). These are:

- the *direct* effect of economic activity generated by the University itself, and in the businesses supplying goods and services where 'additional' students and their visitors spend money;
- the *indirect* or supply chain effect. This reflects the economic activity which results from the procurement of goods and services by the University and businesses providing goods and services to 'additional' students and their visitors; and
- the *induced* effect, which captures the economic activity generated when staff and those employed in the University's direct supply chain spend their wages on consumer goods and services.

The indirect and induced impacts are calculated using multipliers calculated from regional input output tables. These are developed by combining ONS (2011) input output data for the whole UK

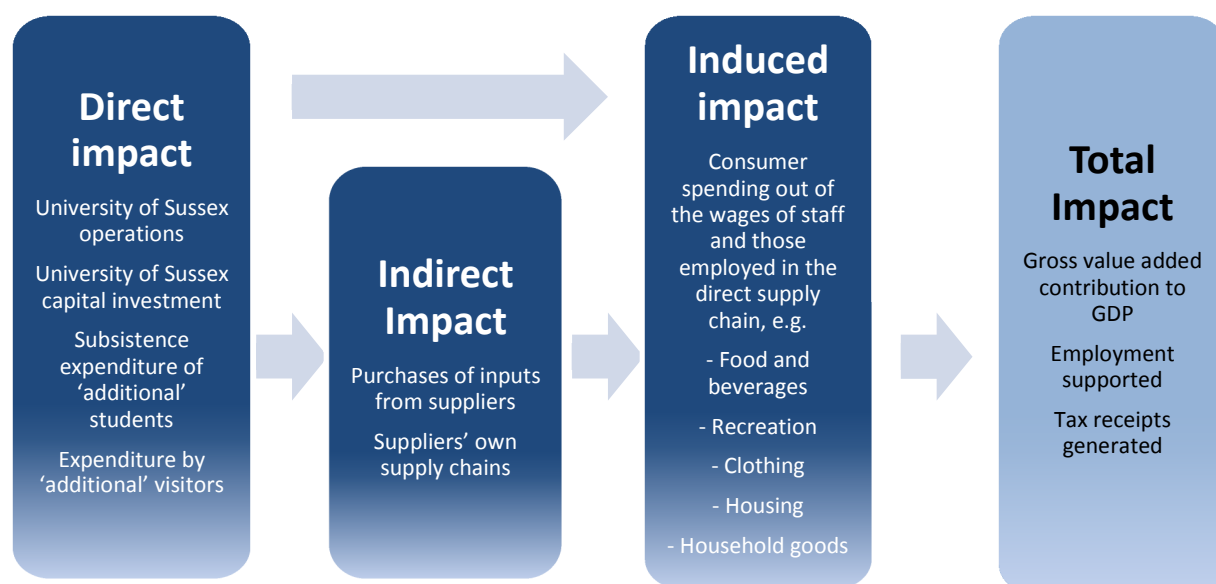
with the techniques developed by Flegg, et al. (1995)¹¹. Employment and tax estimates are calculated using ONS data on labour productivity, average earnings in each industrial sector and tax rates for 2012/13.

4.1.3 The metrics of economic impact

The scale of the University's economic contribution is measured using three metrics:

- *Gross value added (GVA)* – the contribution an institution or company makes to Gross Domestic Product (GDP).¹² GVA is most simply understood as the value of the output (i.e. turnover) minus the cost of bought in goods and services used up in the production of an output.¹³
- *Employment* – measured in headcount terms rather than full-time equivalence to facilitate comparison with ONS employment data.
- *Tax receipts* – this study considers the receipts generated from Income and Corporation taxes, employee and employer National Insurance contributions, and other indirect taxes paid by employees (including Council Tax and VAT).

Figure 4.1: The channels of economic impact



¹¹ Flegg, Webber & Elliot, 1995. On the appropriate use of location quotients in generating regional input-output models. *Regional Studies*, 29(6)

¹² GDP is the main 'summary indicator' of economic activity in the UK economy. References to the rate at which the UK economy is growing (or when it enters recession) are made using GDP.

¹³ Gross value added is also equivalent to the sum of employee costs and profits (defined as earnings before interest, taxation, depreciation and amortization (EBITDA))

4.2 The impact of the University's activities

Key points

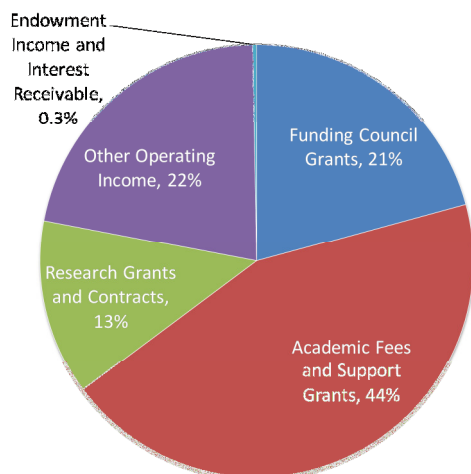
- In total, the University's activities supported a £146 million value added contribution to the local economy in 2012/13. This provided 2,700 local jobs and generated £42 million in tax revenues.
- The direct value-added contribution of the University to the local area was £124 million in 2012/2013. The £16 million of University procurement spend amongst local suppliers generated an indirect value added contribution of £8 million, and supported 220 jobs in the local area.
- University employees living within the local area received £36 million in wages after tax. The spending of this income on consumer goods and services, combined with the spending of those employed in the University's local supply chain, generated an induced value-added contribution to the local economy of £15 million. This supported 310 jobs.
- In the South East region, the University's activities supported a total of £174 million in gross value added, almost 3,300 jobs and more than £52 million in tax revenues.
- Across the entire UK, the University's activities supported a value-added contribution of £225 million, 4,300 jobs and £67 million in tax revenues.

4.2.1 Direct impact of the University

The University received £202 million in income in 2012/13 (Chart 4.1). Of this, 44 per cent (or £89 million) came from tuition fees and support grants. Specifically, £47 million was paid in fees by full-time UK and EU students, while non-EU students paid £38 million. Part-time or other courses and short courses raised £2 million each and research training support grants raised £275,000.

Other operating income represented the second largest source of income for the University (£44 million). The third largest source of income was council funding grants, which raised 21 per cent (£42 million) of total income. The main contributor of this source of income was the recurrent teaching grant from the Higher Education Funding Council for England (HEFCE), which provided £37 million. The remainder (£27 million) of the University's income was sourced from other research grants and contracts.

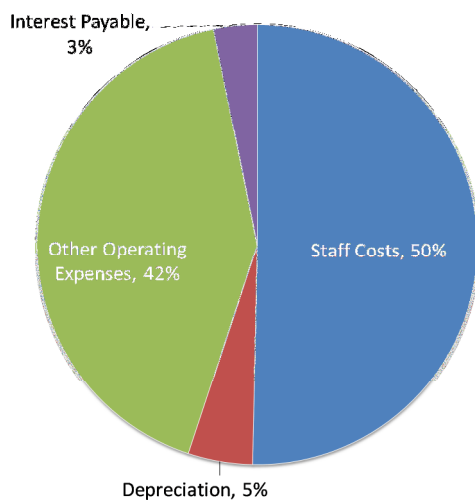
Chart 4.1: University of Sussex income by source in 2012/13



Source: University of Sussex and Oxford Economics

The University spent £187 million in 2012/2013 on current expenditures (Chart 4.2). The University's single largest expenditure was its payment of wages and salaries to its 2,200 employees. Including other employee costs such as pension and National Insurance Contributions, staff costs amounted to £94 million. Other operating expenditures, including the purchase of inputs of goods and services and restructuring costs, accounted for a further £78 million. Depreciation and interest payments amounted to £9 million and £6 million, respectively.

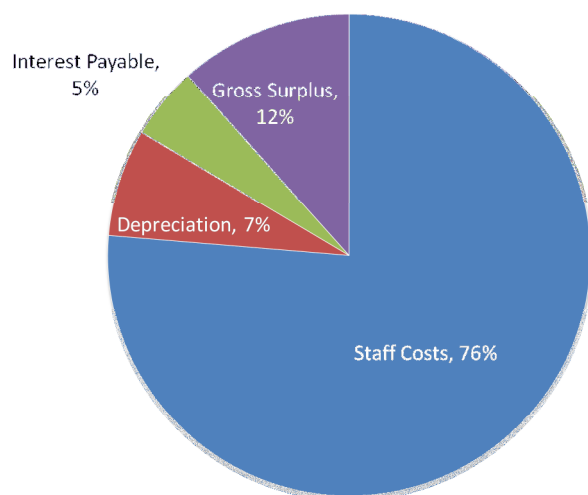
Chart 4.2: University of Sussex current expenditure by type in 2012/13



Source: University of Sussex and Oxford Economics

The financial statements report that the University recorded a £14 million surplus in 2012/2013. Therefore, the direct value added contribution of the University to the local area, calculated as the sum of employment costs and the surplus on operations before depreciation and interest costs, was £124 million (Chart 4.3).

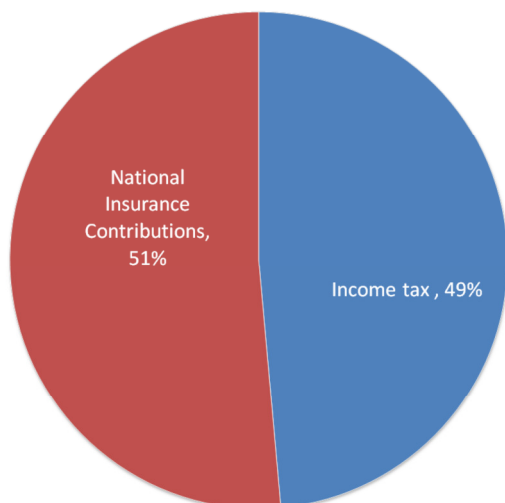
Chart 4.3: University of Sussex gross value added by source in 2012/13



Source: University of Sussex and Oxford Economics

The University and its employees paid over £28 million in taxes in 2012/13, split almost evenly between National Insurance Contributions (both employee and employer) and income tax.

Chart 4.4: University of Sussex direct tax contributions by type in 2012/13

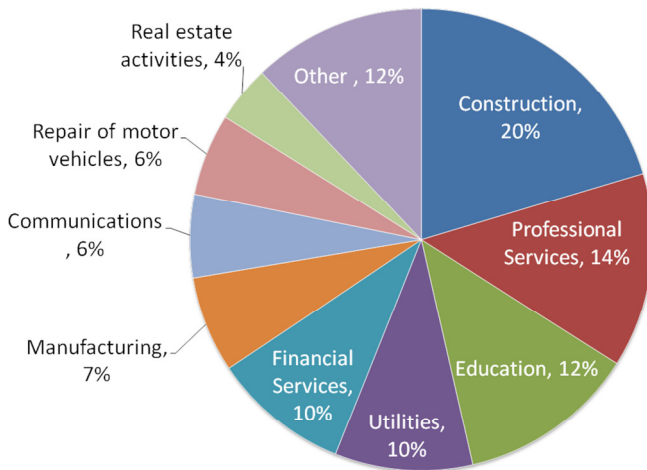


Source: University of Sussex and Oxford Economics

4.2.2 The University's supply chain

In 2012/2013, the University spent £72 million on inputs of brought-in goods and services from UK-based suppliers. The construction sector accounted for 20 per cent of goods and services procured by the University. 14 per cent of the University's procurement of goods and services was from the professional services sector; 12 per cent was from the education sector; and utilities and financial services each accounted for 10 per cent.

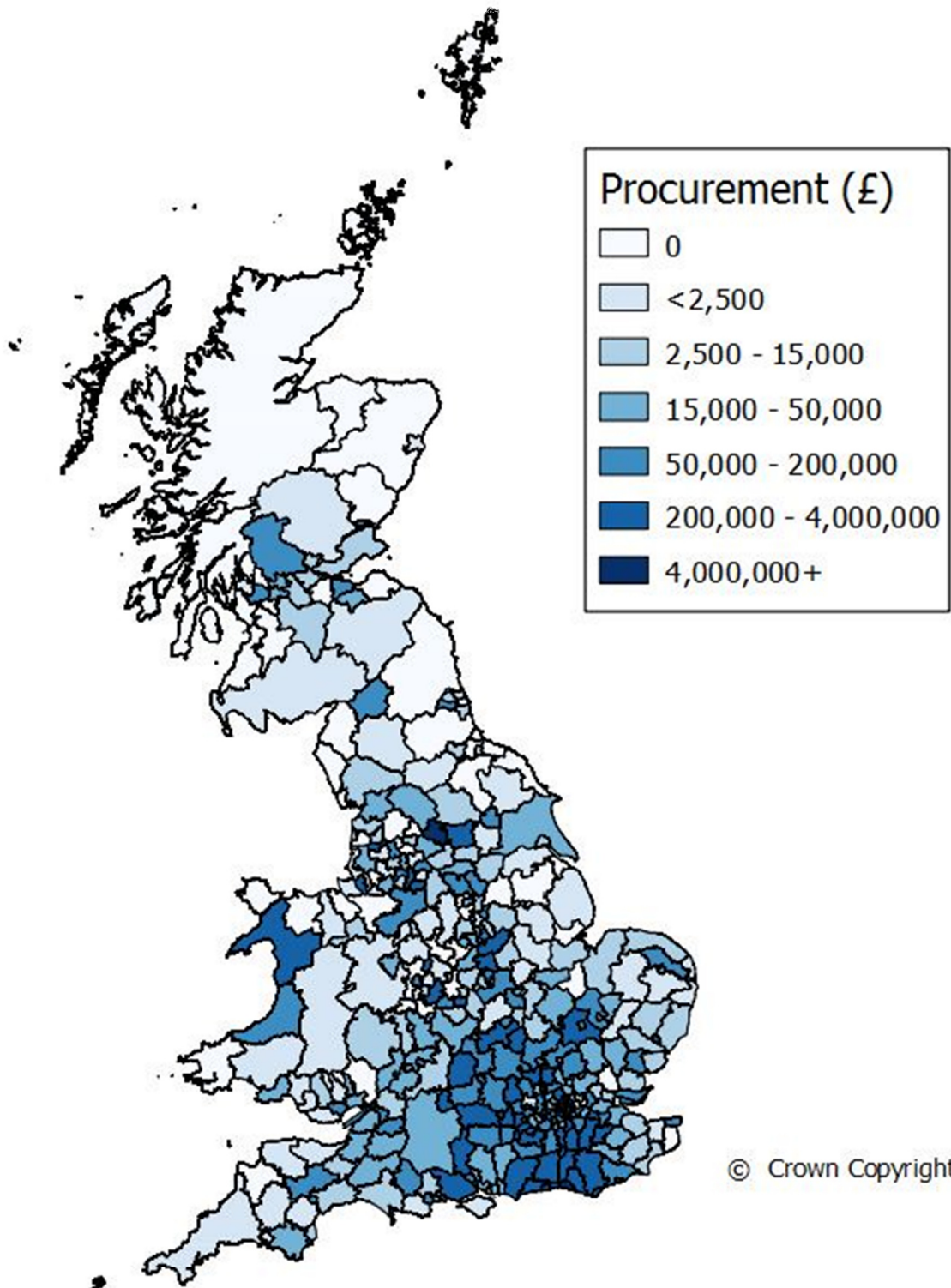
Chart 4.5: University of Sussex procurement of goods and services from UK-based suppliers in 2012/13



Source: University of Sussex and Oxford Economics

Procurement data indicate that firms in the South East provided £34 million (or 48 per cent) of these goods and services. £16 million (22 per cent) of supplies came from the local area (Figure 4.2).

Figure 4.2: Geographic distribution of University of Sussex procurement of goods and services from UK-based suppliers in 2012/13



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Impact on the local area

The £16 million of procurement the University sources from suppliers in the local area generated a value added contribution of £8 million in the local economy in 2012/2013. This activity supported 220 jobs in the local area and generated tax receipts of £3 million.

Impact on the South East

The £34 million of University purchases from suppliers in the South East region resulted in a £19 million value added contribution to the regional economy. This activity supported 450 jobs in the South East and generated tax receipts of £6 million.

Impact on the UK

Overall, the £72 million of University purchases from suppliers across the UK resulted in a £53 million value added contribution to the national economy. This activity supported over 1,110 jobs in the UK and generated tax receipts of £17 million.

4.2.3 The University's induced impact

Impact on the local area

In 2012/2013, 1,573 University employees (1,409 FTEs) lived within the local area. The wage-financed spending of these employees on consumer goods and services, combined with the wage-financed spending of those employed in the University's direct local supply chain, generated a £15 million value added contribution to the local economy. This supported 310 jobs and generated £13 million in tax receipts¹⁴.

Impact on the South East

University employees who reside within the South East, plus those employed in the University's South East supply chain, supported over 650 jobs in the region and a value added contribution of £32 million. This activity resulted in £17 million of tax receipts for the Exchequer.

Impact on the UK

University employees who reside within the UK, plus those employed in the UK supply chain, supported over 1,000 jobs in the UK and a value added contribution of £49 million to the UK economy. This activity resulted in £22 million of tax receipts.

4.2.4 Total impact of the University's activities

The total economic impact of the University's activities on the economies of the local area, the South East and the UK is the sum of the three expenditure impacts (direct, indirect and induced) in each area.

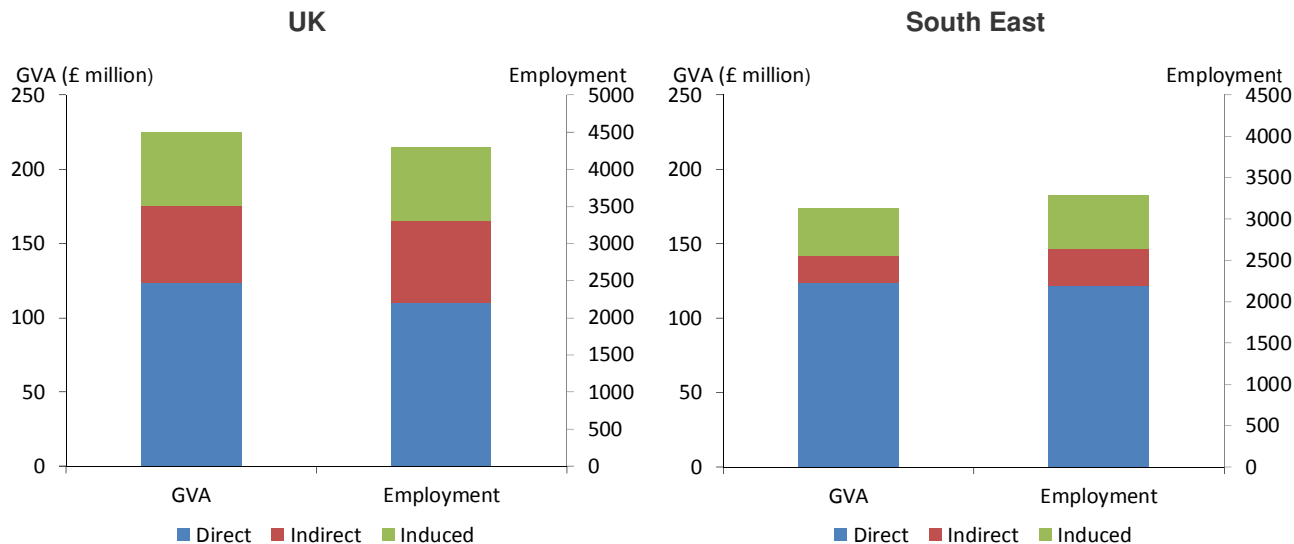
¹⁴ This figure includes indirect taxes (such as VAT and excise duties) on purchases by employees and those in the University's supply chain.

In 2012/2013, the University's activities supported a £146 million contribution to local value added, 2,700 local jobs, and a £42 million in tax revenues (Chart 4.6).

In the South East region, the University's activities supported a value added contribution of £174 million, almost 3,300 jobs and £52 million in tax revenues.

In the UK as a whole, the University's activities supported a value-added contribution of £225 million, 4,300 jobs and £67 million in tax revenues.

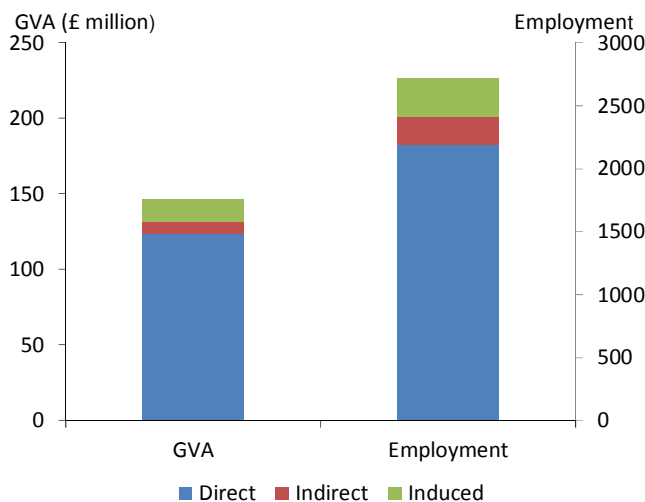
Chart 4.6: The economic impact of the activities of the University of Sussex in 2012/13



Source: Oxford Economics

Source: Oxford Economics

Local area



Source: Oxford Economics

4.3 The impact of students' subsistence spending

Key points

- In 2012/13 an average full-time student enrolled in a UK university spent £10,095 in the year, while part-time students spent £18,184.
- Of the 12,850 full-time equivalent students at the University of Sussex, it is estimated that 8,649 would not have been in the local area in the absence of the University. The local spending of these 'additional' students amounted to £97 million, which translates into a local value added contribution of £47 million. This spending also supports 820 local jobs.

The University attracts students from throughout the UK and overseas to the local area, the South East and the UK. The subsistence spending of students who would not otherwise have been in the local area can be considered part of the overall impact of the University. In contrast, the spending of students living in the local area prior to attending University is not deemed to be additional to the local economy as it is likely these students would have spent money in the local economy if they were not attending the University.

Similar logic can be applied to consider the 'additionality' of students to the South East or UK economies. For example, if a student was a UK resident before attending the University of Sussex then that student has not been included in the student subsistence spending analysis for the UK. Table 4.1 details the number of additional students within the local area, South East and the UK.

Table 4.1 Number of full-time equivalent students that may be considered 'additional' to the local area, South East and UK in 2012/13

	Term-time address is in...		Home address is in...		Additional students in...
Local area	10,397	-	1,748	=	8,649
South East	11,584	-	4,626	=	6,958
UK	12,851	-	9,153	=	3,698

Source: University of Sussex and Oxford Economics

4.3.1 Student subsistence expenditure

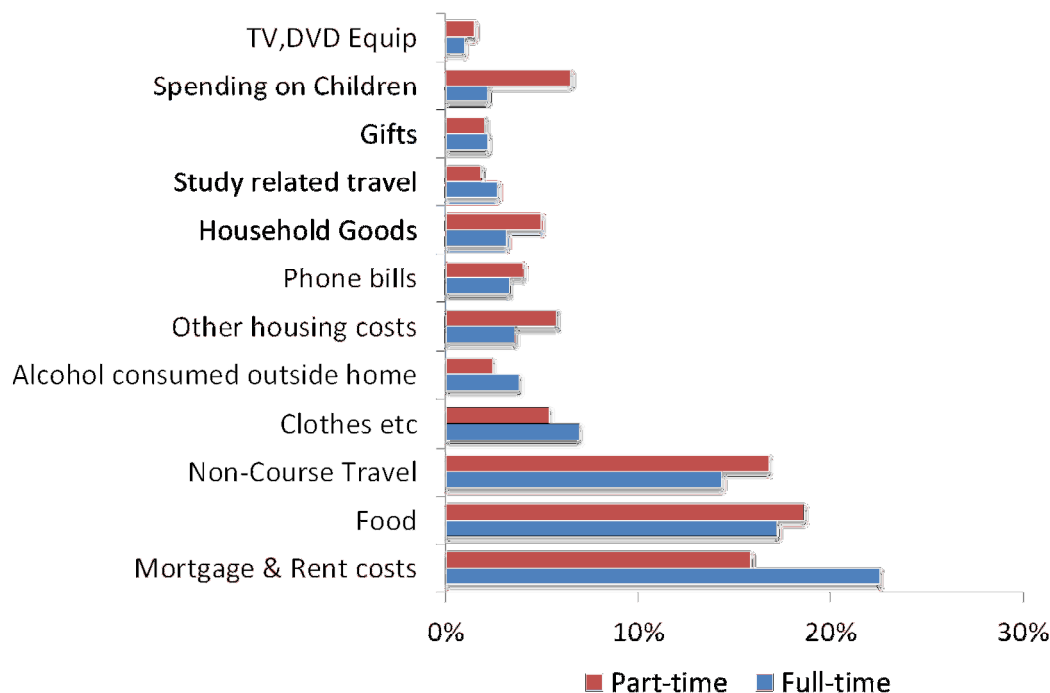
Students' subsistence expenditure is all spending (with the exception of tuition fees) that students make while studying at university for one year. These payments include purchases of items required for study (such as transport to university and books) and other consumer expenditure (including spending on food, leisure and social activities). Payments for tuition fees are excluded from subsistence spending as they have already been captured in the revenues of the University, and its direct economic impact.

The Department for Business Innovation Skills undertakes periodic surveys of subsistence expenditure by students. The most recent covered the 2011/12 academic year¹⁵. Making allowance for the change in living costs between 2011/12 and 2012/13 using the consumer price index, it is estimated that each full-time student spent £10,095 in the year, while part-time students spent

¹⁵ Department for Business Innovation and Skills (2013) Student Income and Expenditure Survey 2011/12, BIS Research Paper Number 115

£18,184. Housing, food and non-course travel made up the largest share of student spending in 2012/13 (Chart 4.7).

Chart 4.7: Student subsistence expenditure by sector in 2012/13



Source: Oxford Economics, Department for Business Innovation and Skills

4.3.2 Impact on the local area

In 2012/13, there were 8,649 additional full-time equivalent students from outside the University of Sussex local area. These students spent £97 million in businesses in the local area. When all of the subsequent supply chain and wage consumption impacts are considered, the spending of the University’s students generated a gross value added contribution of £47 million for the local economy (Chart 4.8). This activity supported employment for 820 people in the local area and generated £11 million in tax receipts.

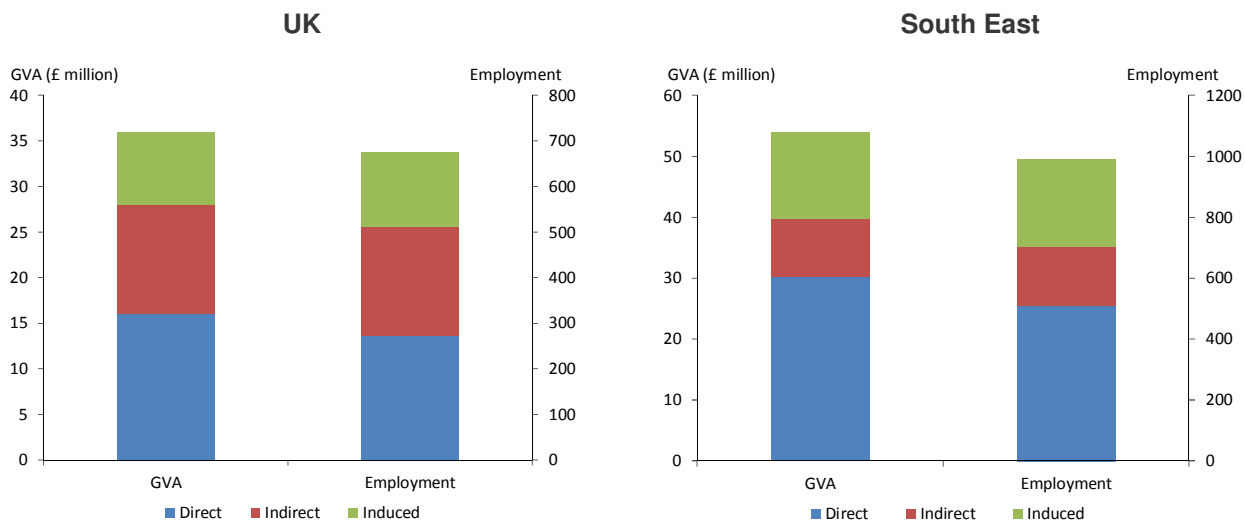
4.3.3 Impact on the South East

The spending of University of Sussex students within the South East amounted to £78 million. Including supply chain and wage consumption effects, this spending generated £54 million in gross value added for the South East economy in 2012/13. This spending also supported 990 people in employment and generated £14 million in tax receipts.

4.3.4 Impact on the UK

University of Sussex students spent £42 million within the UK. When all of the subsequent supply chain and wage consumption impacts are considered, this spending generated a gross value added contribution of £36 million for the UK economy. This activity supported 680 people in employment and £9 million in tax receipts.

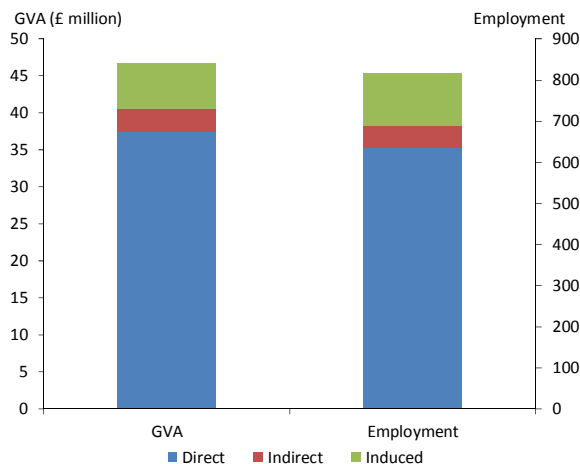
Chart 4.8: The economic impact of the subsistence spending of University of Sussex students in 2012/13



Source: Oxford Economics

Source: Oxford Economics

Local area



Source: Oxford Economics

4.4 The impact of additional visitors to students

Key points

- Friends and relatives visiting students spend money amongst local businesses, generating economic activity and employment, both within the local area and in supply chains.
- In 2012/2013, visitors to University of Sussex students spent an estimated £9 million in the city's hotels, restaurants and recreational sectors. This supports a local gross value added contribution of £4 million and jobs for 140 people.
- At the UK level, spending by visitors to University of Sussex students generated a £7 million contribution to gross value added and jobs for more than 200 people.

Friends and relatives visiting additional students (as defined in the previous section) spend money in the local area, South East and the UK, generating economic activity and supporting employment in businesses in these areas and their supply chains.

The additional visitors the University attracts to the area and region come from other parts of the UK and overseas. The spending profile of the two types of visitors (domestic and international) differs by a visitor's origin, and a different method is used to calculate the spending impact of each group.

4.4.1 Visitors from overseas

ONS *International Passenger Survey* (IPS) data capture the level of spending of international visitors to the UK and its regions, including those who have travelled for the purpose of visiting friends or relatives.¹⁶ Using the IPS it is possible to identify the level of spending by overseas visitors who travel to the local area and the South East to visit friends or relatives, split by the nationality of the visitor. The IPS does not record whether the friends and relatives that these tourists are visiting are students. Therefore, it is assumed that these visitors are all visiting friends and relatives who share their nationality, and that spending by travellers visiting students is similar to other visitors to friends and relatives of that nationality.

For example, there are 11,000 Chinese nationals living in the South East. Total spend by Chinese nationals visiting friends and relatives is £4.7m, so spend per Chinese national living in the South East is estimated at £4.7 million / 11,000 = £426. This number is then multiplied by the number of additional students from China living in the South East area.

Applying this methodology to the University's 3,510 overseas full-time equivalent students who were living in the local area indicates that visitors to these students spent almost £8.3 million in the local area in 2012/13.

The number of overseas students living in the wider South East region while studying at the University in 2012/13 was slightly higher, at 3,570 full-time equivalents, which resulted in an estimated visitor spend of £8.4 million.

¹⁶ Office for National Statistics (2012)

The number of overseas students living in the UK while studying at the University in 2012/13 was slightly higher again, at 3,700 full-time equivalents, which resulted in an estimated £8.6 million of visitor spend.

4.4.2 Domestic visitors

The University's domestic students also attract visitors to the local area and the South East. Although no information is available on how many visitors each student from outside the local area and South East receives, data do exist on the average spend of a visitor from each part of the UK to friends and relatives in the local area and the South East.¹⁷ Using a similar approach to that employed for overseas students it is possible to estimate the level of spending these domestic visitors introduce into the local area and South East economies. This study assumes, therefore, that each student from outside the local area and the South East gets one visitor from their home region each year. With the likelihood that some students receive multiple family visits over the course of an academic year; that parents are often involved in the transport of personal effects at the beginning and end of session; and that families may make additional visits for graduation, this is probably a very conservative assumption.¹⁸

Following this approach, the 5,150 UK full-time equivalent students who came to the local area to study at the University in 2012/13 attracted visitors who spent £435,000 in the local area. Similarly, visitors to the 3,390 additional full-time equivalent students living in the South East spent £416,000¹⁹ in the region in 2012/13.

4.4.3 Impact on the local area

Visitors to students at the University of Sussex spent £9 million in the city's hotels, restaurants and recreational sectors. Taking account of the subsequent supply chain and wage consumption impacts, this spending supported a local gross value added contribution of almost £4 million, employment for 140 people (Chart 4.9) and £1 million in tax receipts.

4.4.4 Impact on the South East

Visitors to students that were additional at the South East level also spent around £9 million in the region which, when supply chain and wage consumption effects are considered, generated a value added contribution of £6 million to the regional economy, supported more than 180 people in employment, and generated £2 million in tax receipts.

4.4.5 Impact on the UK

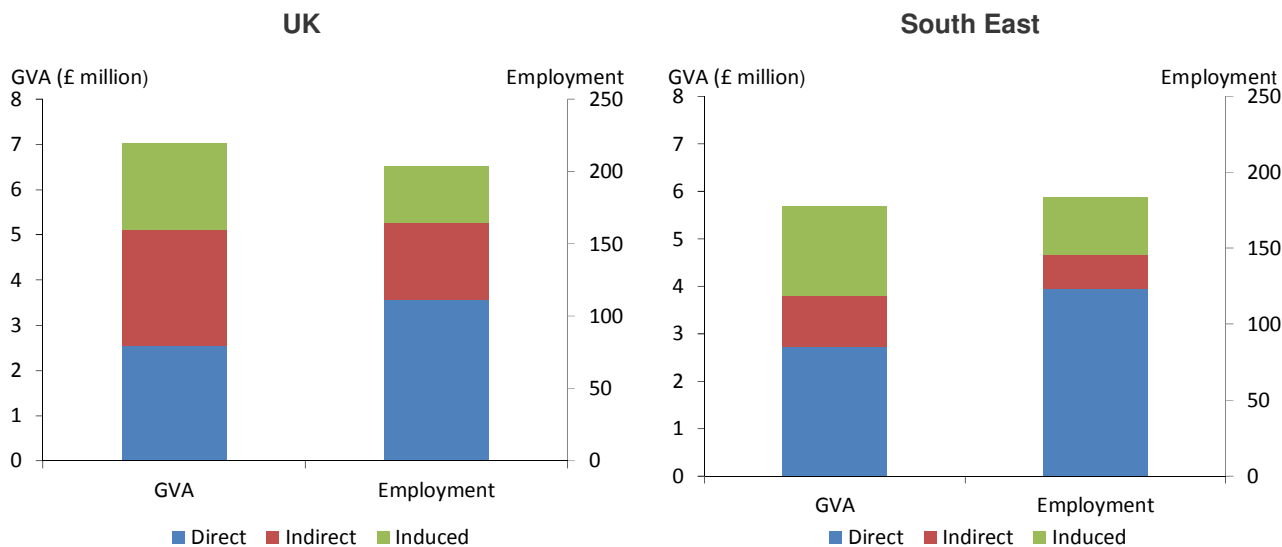
The impact of visitor spend on the UK only takes into account visitors to overseas students, since they are the only students additional to the country as a whole. In total these visitors spent around £9 million which, when supply chain and wage consumption effects are considered, results in a value added contribution of £7 million to the national economy. This also supports more than 200 people in employment and generates £2 million in tax receipts.

¹⁷ Visit Britain (2012)

¹⁸ For example, the University tentatively estimates that each family visiting Brighton for a graduation ceremony spends around £250.

¹⁹ The domestic visitor spend figures for the local area and South East are similar because it is conservatively assumed that visitors from the South East visiting students that are additional to the local area do not spend money during their visit.

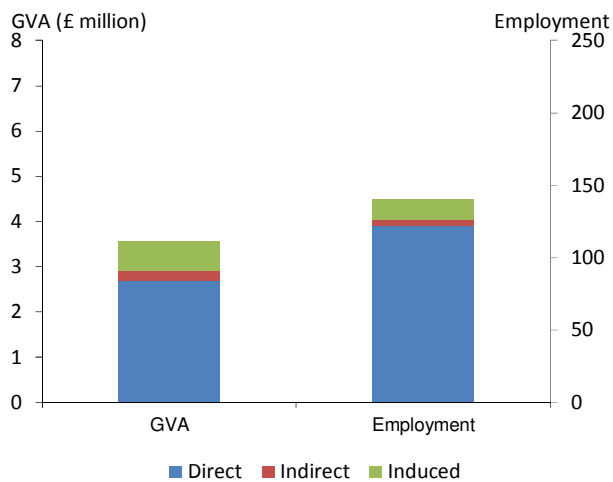
Chart 4.9: The economic impact of the spending of visitors to University of Sussex students in 2012/13



Source: Oxford Economics

Source: Oxford Economics

Local area



Source: Oxford Economics

4.5 Impact of the University's capital expenditure programme in 2012/2013

Key points

- The University spent £7 million on capital investment with UK-based suppliers in 2012/2013. £574,000 of this was spent with suppliers in the local area, generating a local gross value added contribution of £300,000.
- Across the South East, the gross value added contribution generated by the University's capital spending was £1.7 million, and for the UK as a whole it was £7 million. It also supported employment for more than 150 people in the UK, and generated £2 million in tax receipts.

The University spent £7 million on capital projects with UK-based suppliers in 2012/13, over and above the current expenditure reported in section 4.2. This section assesses the impact of this investment.

4.5.1 Impact on local area

Of the University's capital expenditure in 2012/13, £574,000 was spent with local businesses. This spending generated activity in these businesses and their supply chains, and the employment supported generated wage consumption impacts in the local economy. Taking account of the entire impact chain (direct, indirect and induced) the University's capital spending led to a value added contribution of £300,000 for the local economy (Chart 4.11). This activity supported seven people in employment and generated £109,000 in tax receipts.

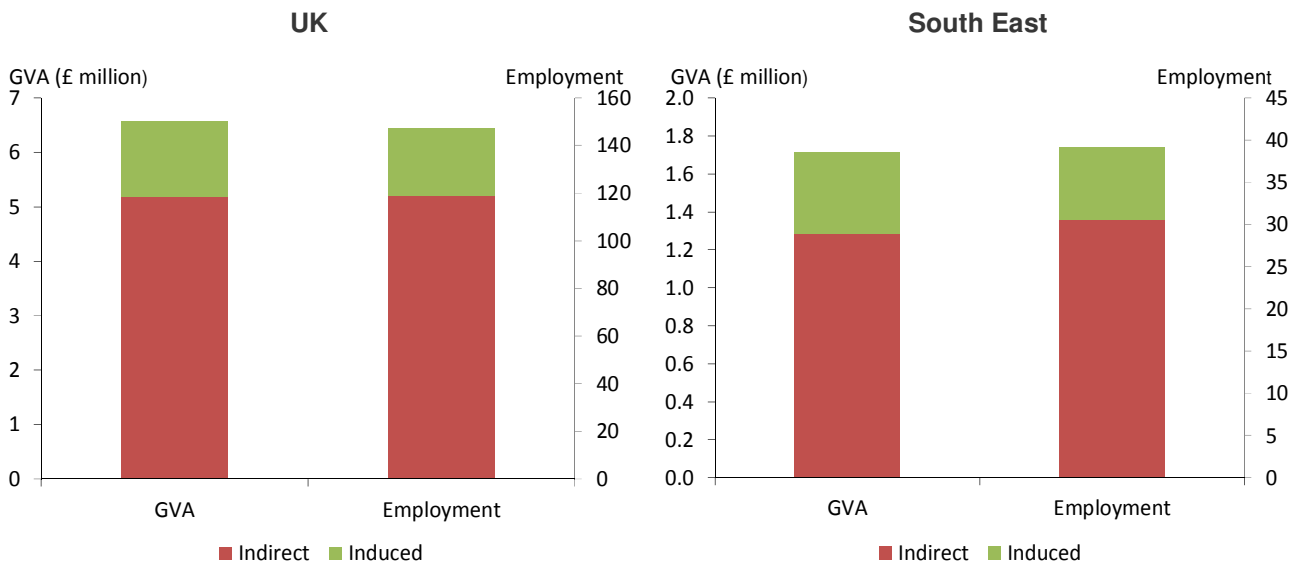
4.5.2 Impact on the South East

The University's capital spending with businesses across the whole of the South East was £2.4 million. When supply chain and wage consumption impacts are considered, this capital spending delivered a £1.7 million value added contribution to the region's economy, supported 39 people in employment and generated £589,000 in tax receipts.

4.5.3 Impact on the UK

The University's capital spending with businesses across the UK was £7 million. When supply chain and wage consumption impacts are considered, this capital spending delivered a £6.6 million value-added contribution to the national economy, supported almost 150 people in employment and generated £2.2 million in tax receipts.

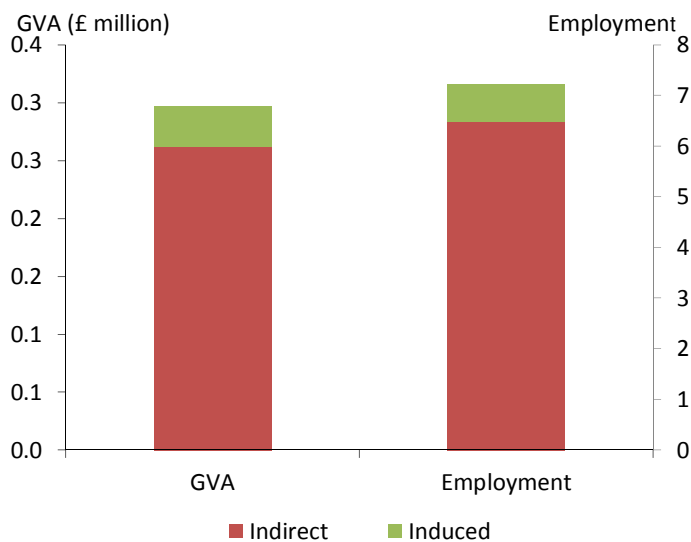
Chart 4.11: The economic impact of University of Sussex capital spending in 2012/13



Source: Oxford Economics

Source: Oxford Economics

Local area



Source: Oxford Economics

4.6 Total impact of the University in 2012/13

Key points

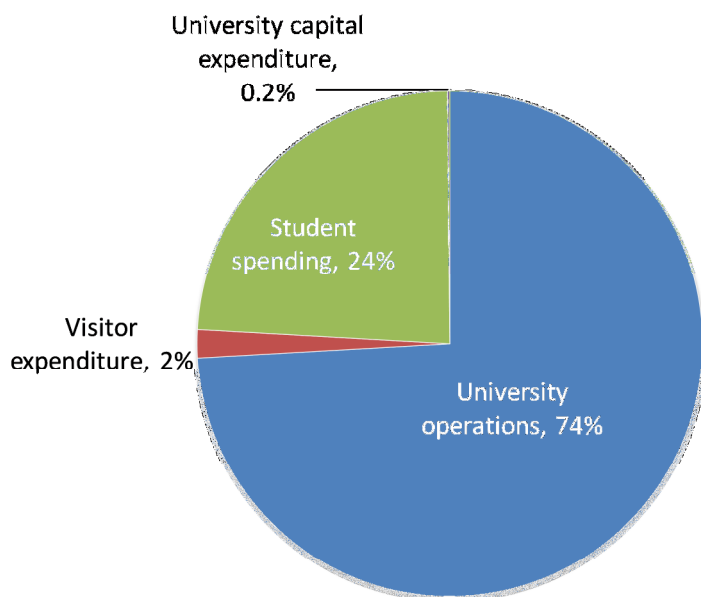
- Taking into account all of the effects identified in the previous sections, the University of Sussex supported total spending within the UK economy of £0.6 billion in 2012/13. This spending is, in turn, estimated to have generated a £274 million gross value added contribution to UK GDP. It also supported jobs for more than 5,300 people and tax revenue of £81 million.
- The total contribution of the University to the *local* economy in 2012/13 was £197 million of gross value added, equivalent to 2.6 per cent of the entire local economy. The University also supported almost 3,700 jobs and £55 million of tax revenues.
- Across the South East region, the University's total gross value added contribution is estimated to have been £235 million. It is also estimated to have supported employment for more than 4,500 people.

The total impact of the University on the local area, region and the UK in 2012/13 is the sum of the impacts set out in the preceding sections – the University's activities, the subsistence spending of additional students, the spending of visitors to additional students, and the University's capital spending. Each of these contributions stimulates further activity in supply chains, and the wage-induced spending of those employed as a result of the University.

4.6.1 Total impact on the local area

In total, the University of Sussex is estimated to have supported a value added contribution of £197 million to local economy in 2012/13. This is equivalent to 2.6 per cent of the entire GVA of Brighton and Hove and Lewes. Almost three quarters of the University's impact stems from the activities of the University itself. The subsistence spending of students ranks second in importance, accounting for 24 per cent of the total impact (Chart 4.12).

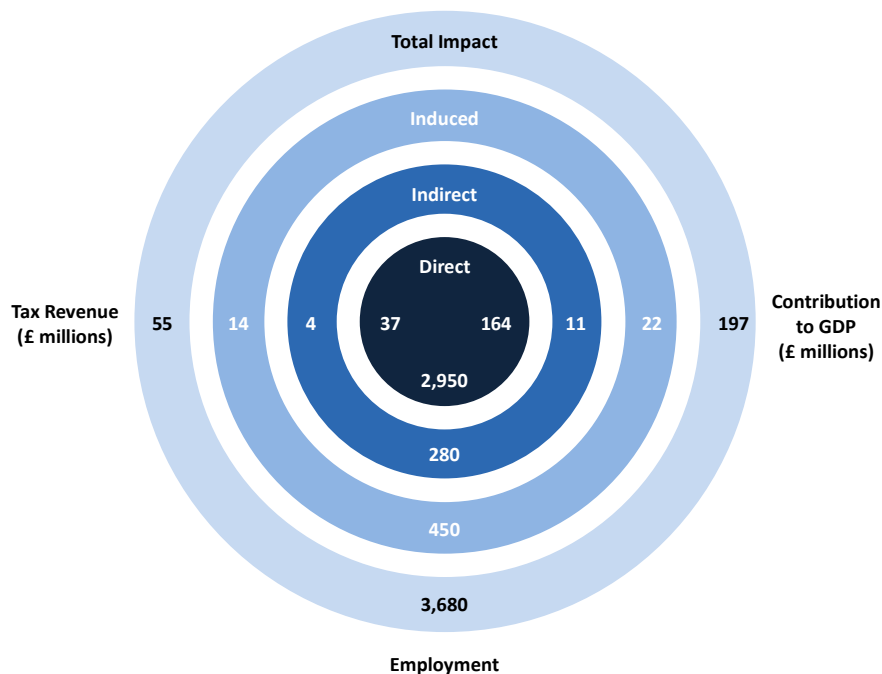
Chart 4.12: The local gross value added impact of the University of Sussex in 2012/13



Source: Oxford Economics

The University supported almost 3,700 local jobs in 2012/2013, equivalent to 1.9 per cent of total employment in the local area, and £55 million in tax receipts (Figure 4.3).

Figure 4.3: The economic impact of the University on the local area in 2012/2013



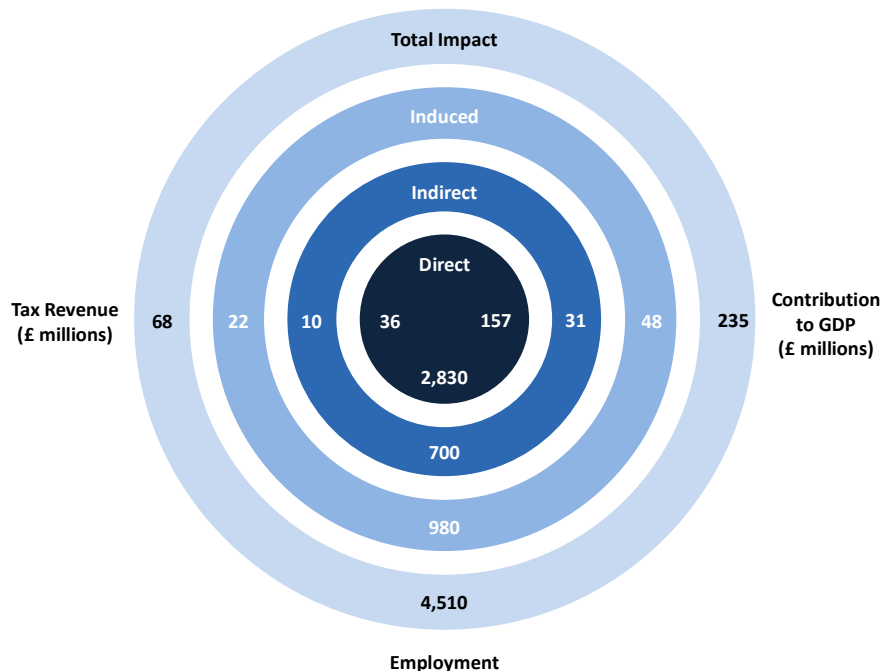
4.6.2 Total impact on the South East

The greater geographical area and more extensive supply chains found in the South East mean the University's contribution to the region is greater than when only the local area is considered. In total, the University generated a £235 million value added contribution to the South East economy in 2012/13. The University's direct value-added contribution accounted for £157 million of this

impact. The University supported 4,500 people in employment in the region and a £68 million contribution to tax receipts (Figure 4.4). Economic activity supported by the University was equivalent to 0.1 per cent of total output and employment in the South East region in 2012/13.

Whilst the *overall* economic contribution of the University is greater at the regional level than at the local level, the *direct* contribution is slightly smaller. This is because, as shown in Table 4.1, at the regional level there are fewer ‘additional’ students who would not otherwise have been in the South East. This results in a slightly lower direct economic contribution from student subsistence expenditure in the South East than in the University’s local area.

Figure 4.4: The economic impact of the University on the South East in 2012/2013

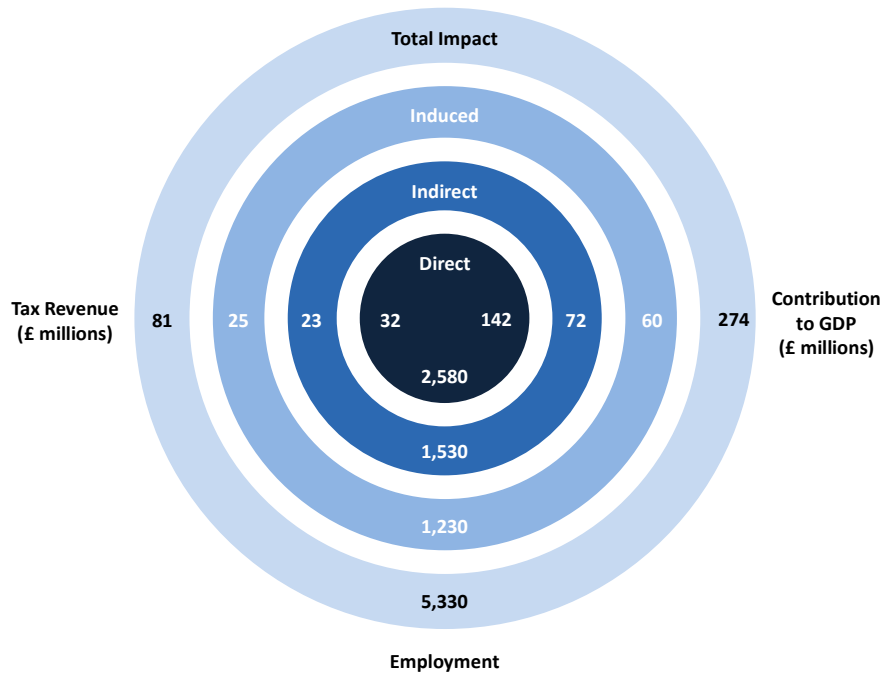


4.6.3 Total impact on the UK

In the UK as a whole, the University of Sussex supports total spending of £0.6 billion. This spending is, in turn, estimated to generate a £274 million gross value added contribution to UK GDP. It also supports jobs for more than 5,300 people and tax revenue of £81 million (Figure 4.5).

Whilst the *overall* economic contribution of the University is greater at the national level than at either the regional or local level, the *direct* contribution is smaller. The reason for this is similar to that identified in Section 4.6.2 for the direct regional impact. At the national level, there are even fewer ‘additional’ students who would not otherwise have been in the UK. This means that at the UK level, there is a lower direct economic contribution from the expenditure of students and those visiting students than in the South East or the University’s local area.

Figure 4.5: The economic impact of the University on the UK in 2012/2013



4.7 Projected impact of the University of Sussex in 2017/18

Key points

- If the University achieves the targets set out in its 2013-18 Strategy, the total amount of expenditure it supports within the UK economy is predicted to exceed £1 billion by 2017/18 (after adjusting for inflation). This will, in turn, support a gross value added contribution to UK GDP of £462 million.
- The University's total contribution to South East regional gross value added will increase by just over 50 per cent to £356 million by 2017/18.
- The University's total gross value added contribution to the local economy is projected to increase from £197 million in 2012/13 to £285m in 2017/18. The number of local jobs supported by the University will increase by more than 1,600 to 5,350, which includes additional employment at the University itself, in the local supply chain, and in local firms that benefit from expenditure by University staff, students, and visitors.

The University is about to embark on a significant programme of expansion and, in its new 2013-18 Strategy²⁰, has set itself ambitious growth targets. The main features and goals of the Strategic Plan are set out in Section 4.7.1. The remainder of Section 4.7 presents analysis to predict the impact of the University of Sussex in 2017/18, under the assumption that it successfully achieves the Strategic Plan targets. This analysis has followed the same methodology for each element of economic impact as set out in the earlier sections of Chapter 4. The impacts have been added together to generate the total economic impacts presented in Sections 4.7.3 to 4.7.5.

4.7.1 Main features and goals of the 2013-18 Strategic Plan

In November 2013 the University of Sussex published its 2013-18 Strategic Plan. This sets out a number of challenging objectives and ambitions for the future, most notably in terms of a significant increase in student and staff numbers. The University's vision for 2018 is *"to be a university of high quality, recognised for our contribution to the global academy and human knowledge, with a size and scale to sustain our distinctive academic endeavour for the future"*. The University has identified a number of headings under which to organise its goals. Those most pertinent to this study are summarised below.

Research and knowledge exchange

- Increase research-leading staff to develop a sustainable critical mass in targeted areas
- At least 50 per cent of units of assessment placed in the top 15 by 2018, and be within the UK top 20 overall in the UK's national assessment of research quality
- Double research income to £54 million
- Increase the number of research students to an average of two per member of faculty
- Create three new interdisciplinary research centres

²⁰ <http://www.sussex.ac.uk/aboutus/ourstrategy/>

Teaching learning and the student experience

- Obtain a top 10 position for overall satisfaction in the National Student Survey (NSS), and be in the top 25 for all NSS themes
- Increase undergraduate student numbers by 50 per cent in the targeted academic areas
- Increase postgraduate student numbers to ensure they represent at least 20 per cent of all students
- Ensure students have access to broader opportunities such as study abroad, placements, minor pathways and volunteering
- Be consistently within the top 20 UK universities in both UK and world rankings

Falmer campus

- Deliver the University's vision through a new Campus Masterplan
- Improve academic facilities including a major renewal of the science estate
- Increase residential accommodation to provide housing for 40 per cent of students
- Invest in library, IT and other academic support facilities
- Develop sport, leisure and social facilities

Economic and social impact

- Grow the regional impact of the University by 50 per cent by 2018
- Achieve greater business engagement and incubation, led by the Sussex Innovation Centre, including the establishment of two new innovation hubs
- Increase the commercialisation of research outputs and academic expertise
- Increase the University's influence on public policy and discourse
- Expand engagement with local employers by delivering high-quality, skilled and innovative graduates that help boost the productivity of the regional economy

Other goals

- Build more and stronger partnerships with external organisations, institutions and individuals locally, nationally and internationally
- Provide excellent value professional services delivered by high-quality people working with the best facilities and partners
- Secure the University's sustainable future, including by increasing turnover by 50 per cent, generating surpluses to support investment plans, and reducing CO2 emissions.

4.7.2 Modelling assumptions

To estimate the University's economic impact in 2017/18 it is necessary to make a series of assumptions about the University in that year. Based on the goals outlined above, the main assumptions used for the modelling include:

- the total number of students increases to 17,500 (in FTE terms), and the share of overseas students increases from 23 per cent to 27 per cent by 2017/18;
- there is a 50 per cent increase in academic staff and 30 per cent increase in other staff by 2017/18;
- research income doubles to £54 million in 2017/18; and
- there is £90 million of capital investment in 2017/18.

In addition to the assumptions relating to the size of the University, a number of other considerations are incorporated within the economic impact modelling to reflect broader economic changes. In particular, the modelling takes into account that over time, people become wealthier

and have more money available to spend. This means the amount of subsistence expenditure per student; expenditure per visitor; and the induced spending of University staff and those in the University's direct supply chain will tend to grow in future years, even after allowing for price inflation.

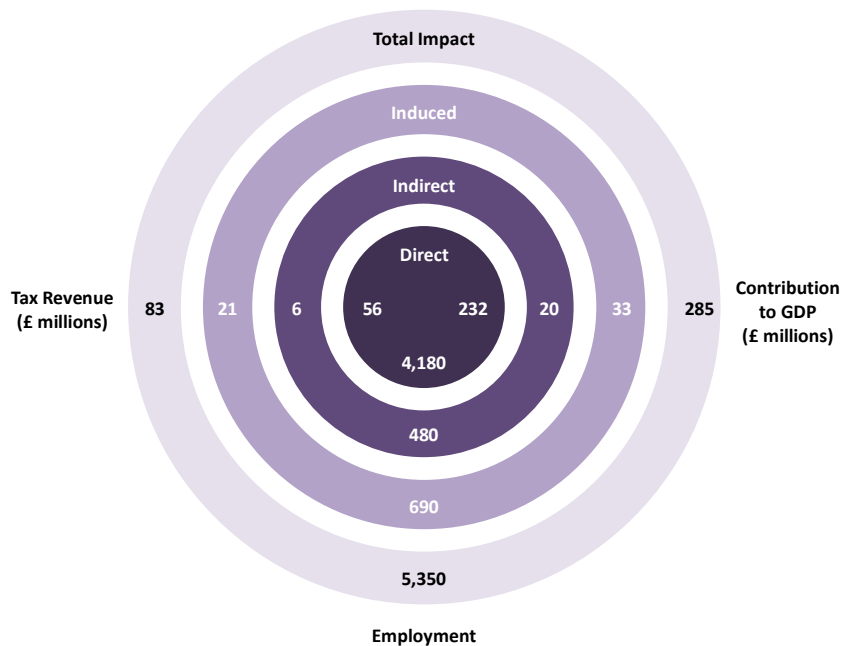
A further adjustment is made to reflect that the 'spending power' of overseas visitors to University of Sussex students will tend to grow in line with trends in their country of origin. Expenditure per visitor from high-growth countries, such as China, Hong Kong and India, will therefore grow more strongly than that of visitors from the UK.

To facilitate comparison with the 2012/13 economic impacts, the results for 2017/18 have been adjusted for inflation (i.e. 2017/18 economic impacts are presented in 2012/13 prices).

4.7.3 Projected impact on the local area in 2017/18

The University's total gross value added contribution to the local economy is projected to increase from £197 million in 2012/13 to £285m in 2017/18, after adjusting for inflation. It is estimated that the total number of local jobs supported by the University will increase by more than 1,600 to 5,350 in 2017/18. This increase includes not only the additional employment that will be created in the University itself, but also the additional positions created in firms in the University's local supply chain, and in local firms that benefit from expenditure by University staff, students, and visitors (Figure 4.6).

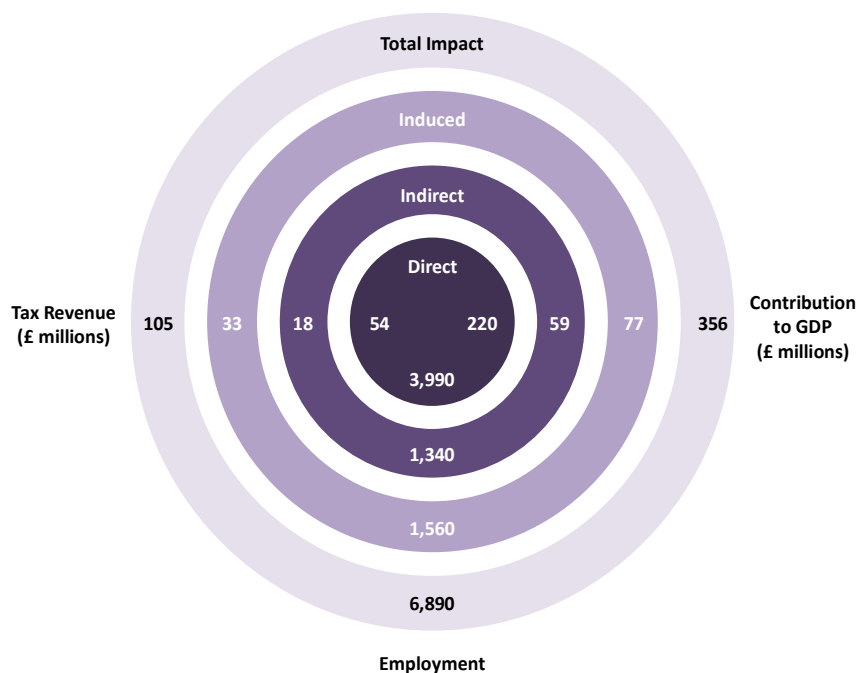
Figure 4.6: The economic impact of the University on the local area in 2017/2018
Values in 2012/13 prices



4.7.4 Projected impact on the South East in 2017/18

The analysis suggests that if the University achieves its targets, its total contribution to South East region gross value added will increase by just over 50 per cent to £356 million by 2017/18 (after adjusting for inflation). It is estimated that the University will support almost 6,900 jobs in the region by 2017/18, plus £105 million in tax revenues (Figure 4.7).

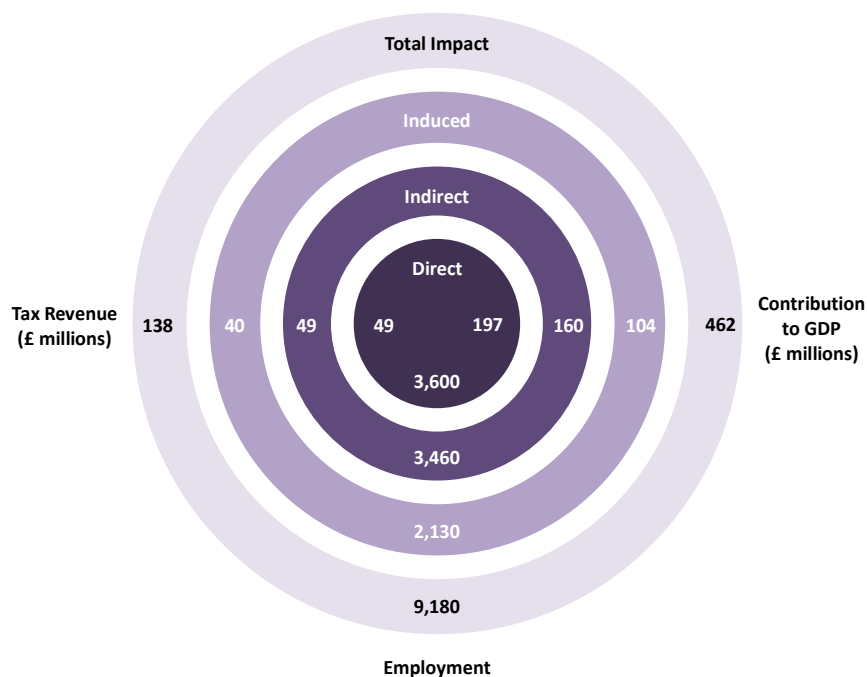
Figure 4.7: The economic impact of the University on the South East in 2017/2018
Values in 2012/13 prices



4.7.5 Projected impact on the UK in 2017/18

Across the UK as a whole, the total value of expenditure supported by the University is estimated to exceed £1 billion in 2017/18 (after adjusting for inflation). In turn, it is estimated this expenditure will support a gross value added contribution to UK GDP of £462 million. The University is also expected to support employment for 9,180 people in the UK, and £138 million in tax revenues (Figure 4.8).

Figure 4.8: The economic impact of the University on the UK in 2017/2018
Values in 2012/13 prices



5 The University as a research hub

Key points

- In 2012/13 the University of Sussex received £27 million of research funding, half of which came from UK Research Councils. 42 per cent of the University's research income went to the Life Sciences.
- Staff and students produced 3,944 research outputs in 2012/13. Two-thirds of these were academic articles.
- Over 90 per cent of Sussex research activity was rated "world-leading", "internationally excellent", or "internationally recognised" in the most recent Research Assessment Exercise.
- The University has 69 registered patents in its portfolio, and collaborates with industry on research and development projects, both directly and via PhD students' participation in the CASE studentships programme.

Research stimulates the innovation that creates new technologies and processes, which ultimately enable new products and services to be brought to the market. In turn, these products and services can generate economic growth by enhancing efficiency and productivity. They can also create social benefits, such as advances in healthcare and public policy.

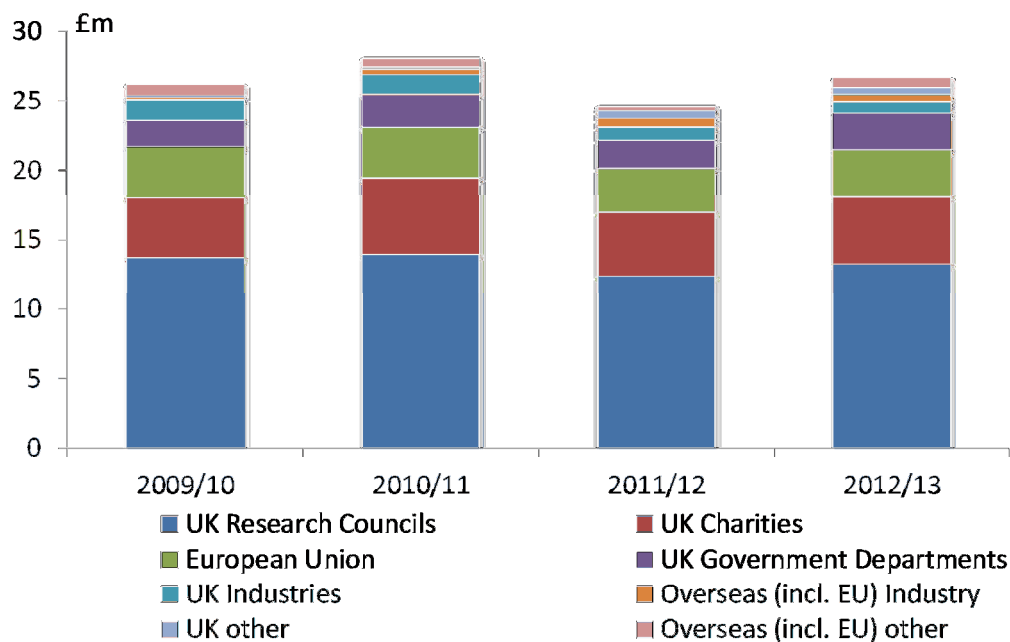
Sussex has a rich history as a research-intensive university. Over the last fifty years, the University has counted three Nobel Prize winners, 14 fellows of the Royal Society, six fellows of the British Academy and a winner of the Crafoord Prize amongst its staff.

This section of the report explores the University's contribution to the process of innovation. The scale of the University's role is measured in terms of inputs (notably funding), outputs (including published articles) and impacts (such as revenue from patents and spin-out companies, and social and commercial benefits).

5.1 Inputs into research

In 2012/13, the University of Sussex received £27 million of research funding (Chart 5.1). Half of this funding came from UK Research Councils. A further 18 per cent came from UK charities, 13 per cent from the European Union and 10 per cent from UK Government Departments. Five per cent of the total came from industry, either in the UK or overseas.

Chart 5.1: Sources of research income at the University of Sussex²¹



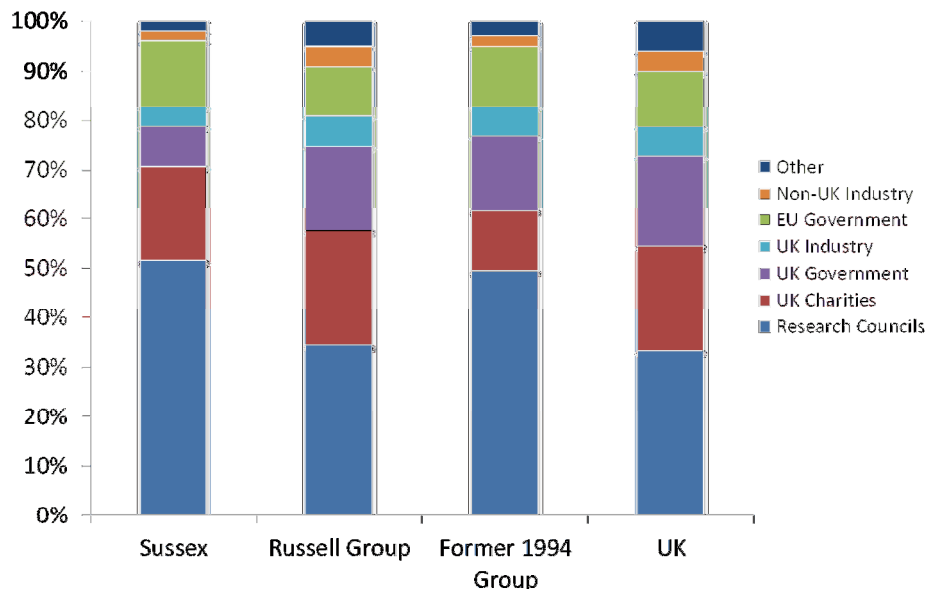
Source: University of Sussex and Oxford Economics

It is desirable for a university to have a diversified portfolio of research income to reduce the degree of vulnerability to changes in any single source’s research budget. Chart 5.2 compares the profile of the University of Sussex’s research income to that of the Russell Group of 24 large research-intensive universities, the erstwhile 1994 Group of 11 small/medium-sized research-intensive universities (of which Sussex was a member), and the UK average.

This suggests the University of Sussex is relatively more dependent on the Research Councils for its research income. At the same time, it tends to secure a relatively smaller proportion of research income from the UK Government. Data for the last few years do, nonetheless, suggest the University is addressing this situation: the share of funding from Research Councils fell slightly between 2009/10 and 2012/13, and the share from the UK Government increased from seven per cent in 2009/10 to 10 per cent in 2012/13.

²¹ The level of funding presented is the actual income (spend) the University has received

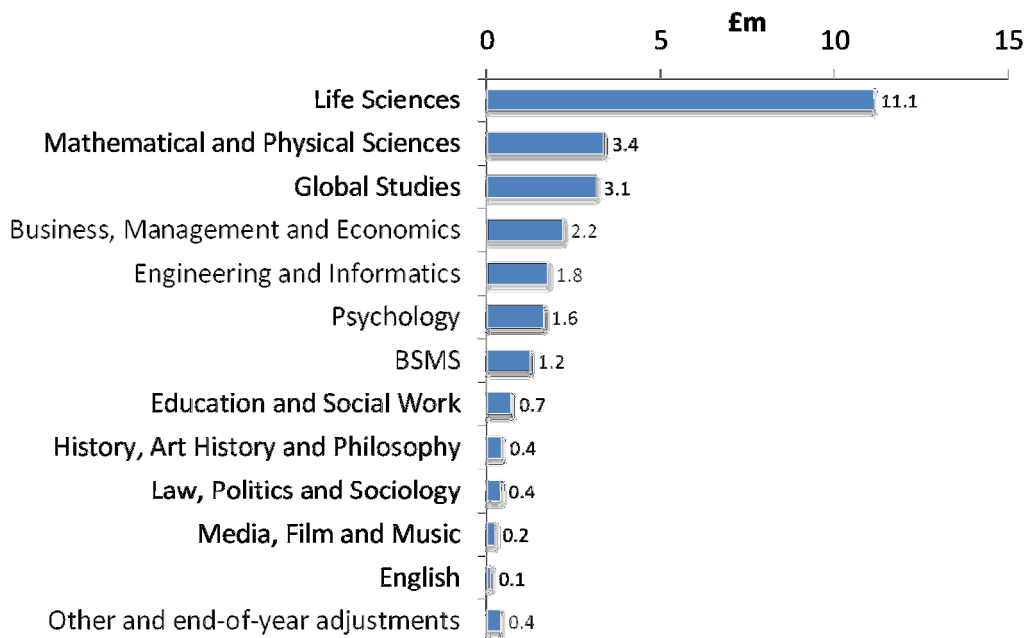
Chart 5.2: Research income profile of Sussex and benchmarks in 2011/12



Source: University of Sussex and Oxford Economics

42 per cent, or £11 million, of the University’s research income in 2012/13 went to the Life Sciences (Chart 5.3). A further 13 per cent of research income went to Mathematical and Physical Sciences, and 12 per cent to Global Studies.

Chart 5.3: Research income by University of Sussex school in 2012/13



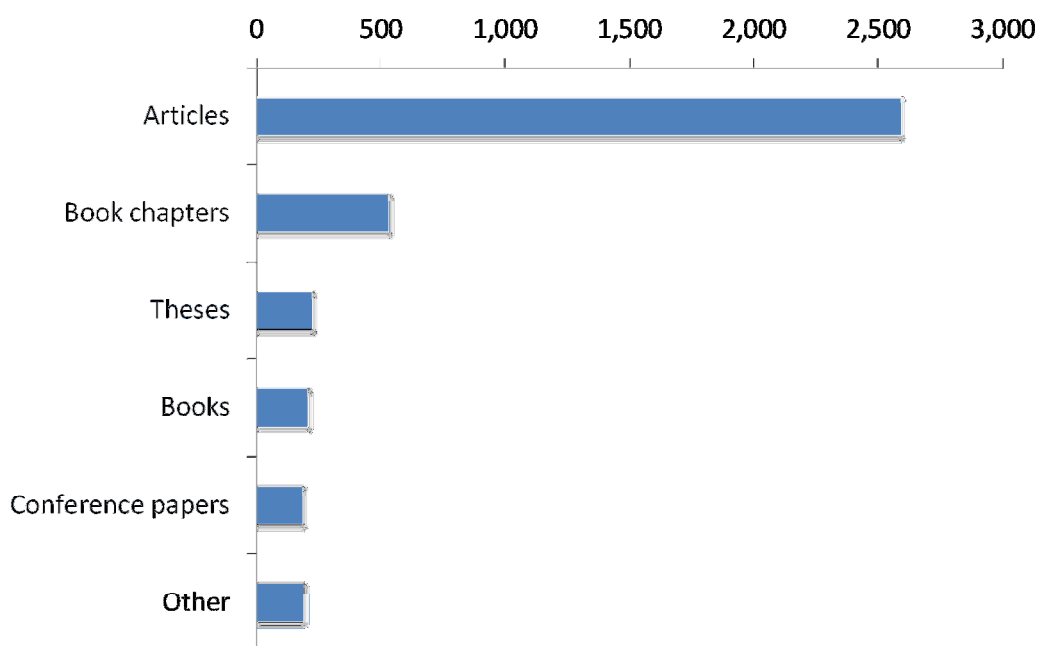
Source: University of Sussex and Oxford Economics

5.2 Research outputs

5.2.1 Types of research outputs

In 2012/13, staff and students at the University produced over 3,900 research outputs (Chart 5.4). Two-thirds of these were articles; 14 per cent were book chapters; and theses, books and conference papers each contributed between five and six per cent. By school, the largest number of items were submitted by the Brighton and Sussex Medical School (668 items), followed by Business, Management and Economics (507).

Chart 5.4: Outputs from University research in 2012/13



Source: University of Sussex and Oxford Economics

5.2.2 Ranking the quality of research outputs

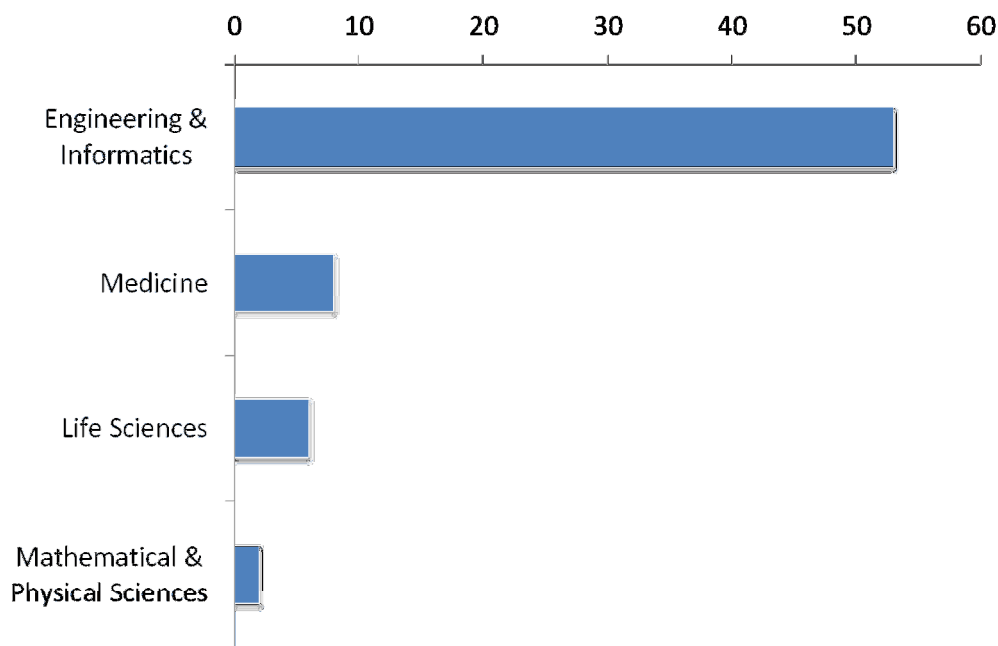
The most recent Research Assessment Exercise took place in 2008. For the University of Sussex the main findings were as follows:

- over 90 per cent of Sussex research activity was rated “world-leading”, “internationally excellent”, or “internationally recognised”;
- 18 subjects ranked in the top 20 in the UK, including three in the top five nationally - American Studies, Politics (in the “European Studies” Unit of Assessment), and Art History; and
- based on a simple average across all scores, Sussex was within the top 30 research universities in the UK.

5.3 Impact of research

In total, the University had 69 registered patents in its portfolio at the end of July 2013 (Chart 5.5). Just over three quarters of these came from the School of Engineering and Informatics.

Chart 5.5: Number of patents in the University of Sussex portfolio on 31 July 2013 by school



Source: University of Sussex and Oxford Economics

The University also works with industry to solve problems and develop new processes and products. Two examples of industrial collaboration projects underway in 2012/13 were:

- with Jaguar Land Rover to research adaptive cylinder pressure reconstruction for production engines; and
- with Leatherhead Food Research to look at the health benefits of food for cognitive performance. Separately, three university spin-out companies were in operation in 2012/13.

CASE studentships are research training grants that enable students to gain experience of undertaking research away from an academic environment (typically within a private company or the public sector), whilst working towards a PhD in a science or engineering discipline. During 2012/13, 20 studentships were underway with companies including Qinetiq, Eon and Syngenta, and local public sector organisations including Brighton and Hove City Council and Sussex Partnership NHS Trust.

6 The University as a national and international gateway

Key points

- In addition to the impacts described in Section 4, a significant number of UK and overseas visitors come to the University of Sussex to attend conferences, summer courses, or make use of University accommodation during the summer vacation.
- It is estimated that visitors in these categories spend £2.1 million in the local economy.
- Conferences and other events at the University of Sussex can also have wider benefits by promoting the University and local area through media coverage and creating a positive experience that may lead to further visits in future.

Section 4 of this report highlighted how University of Sussex students and their visitors make an important contribution to the economy of Brighton and Hove and Lewes. The role of the University in bringing visitors to the local area extends far beyond this, however. Large numbers of visitors from elsewhere in the UK and overseas attend conferences hosted at the University. The language and summer schools hosted during the summer vacation period attract international visitors that are not included in the Section 4 analysis of those present during term time. And the University rents out student accommodation to a diverse range of other visitors from the UK and overseas during the summer vacation.

This section of the report considers the benefit those attending conferences and events at the University may bring through their expenditure in the local economy. Some of this expenditure will accrue to the University in the form of attendance fees and expenditure on accommodation and food, but some of the expenditure will take the form of additional spending amongst local businesses.

In addition, conference and summer visitors bring wider benefits that extend far beyond their immediate expenditure. Events held at the University of Sussex can have a positive impact by promoting the University and local area. Events with significant coverage in the media and academia can enhance the reputation of the University, helping attract academics and students to the University of Sussex in the future. Those attending conferences or other events at the University of Sussex may also be discovering the area for the first time. A positive experience may lead them to make further visits in future, or recommend the area to others.

6.1 Conference visitors

The University is home to a self-contained conference centre which includes eight suites and various syndicate rooms that can each host between 10 and 250 visitors. This facility is available all-year round. The University also hosts residential conferences and events outside of term time.

In 2012/13, an estimated 8,700 people attended day conferences at the University and almost 4,000 people attended residential conferences. Each of these totals included a mixture of UK and foreign delegates. Whilst it is not possible to deduce the proportions of each visitor, by conservatively assuming that all visitors came from elsewhere in the UK it is possible to estimate

that conference visitors to the University of Sussex spent at least £1.1 million²² in the local area in 2012/13.

6.2 International language and summer schools

During the summer vacation the University of Sussex hosts a range of language and summer schools attended by international students. Some of those attending these courses go on to study degree-level courses at the University, but their spending during the summer school period is not included in the analysis presented in Section 4 of this report.

In summer 2013, 1,300 young people from overseas attended an international summer school, and a further 600 attended an international language school course. Using data from the International Passenger Survey, it is estimated that each attendee spent an average of £365 during their time in the UK²³. This means that the total amount of spending by summer and language school attendees is around £700,000 per year. Anecdotal evidence from the University suggests this estimate may be conservative.

6.3 Other summer visitors to the University

During summer 2013, the University rented out accommodation to almost 1,000 other visitors, two-thirds of whom were from overseas. These visitors included groups and organisations on visits to the local area, as well as academics visiting from overseas. Following the approach taken above, it is estimated that visitors in this category spent £300,000 on their visit to the University of Sussex.

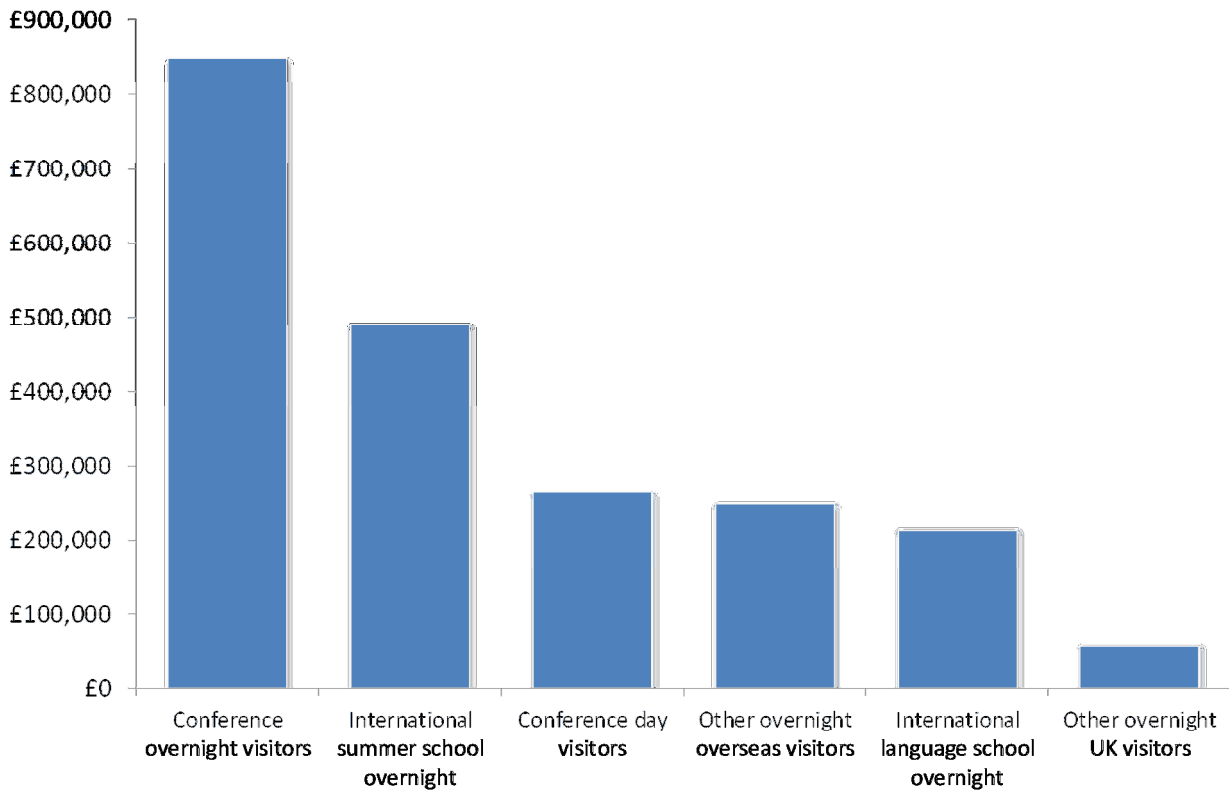
6.4 Overall impact of conference and summer visitors to the University

Estimated spending by conference and summer visitors to the University of Sussex is summarised in Chart 6.1, below. Overall, visitors in these groups spent an estimated £2.1 million in the local economy. 40 per cent of this total came from overnight conference visitors.

²² Based on data from Visit England, Oxford Economics estimates that each day visitor to the South East spends £30 and each overnight visitor spends £214.

²³ Based on 2012 ONS International Passenger Survey, the average spend by visitors to the South East who were on holiday or visiting friends and relatives was £365. Although equivalent data are available for those studying in the UK, the figures for holiday or visiting friends and relatives are likely to provide a better guide to expenditure during short-duration summer school trips.

Chart 6.1: Total spending of conference and summer visitors to the University²⁴



Source: University of Sussex and Oxford Economics

²⁴ Estimates for conference attendees relates to the 2012/13 academic year. Estimates for all other groups relate to summer 2013.

7 The University as a neighbour

Key points

- In 2012/13, the University ran more than 230 events with schools and colleges to encourage participation in higher education, particularly amongst those who would not typically go on to university. These events were attended by more than 12,000 people. In addition, University of Sussex students provided more than 4,500 hours of tutoring and mentoring in schools in Sussex and London.
- Over 1,000 University of Sussex students worked as volunteers during 2012/13, either to enhance student life through the activities of the Student's Union, or to support local community organisations.
- The local community also benefits from access to University facilities, such as the Sussex Innovation Centre and the University Sports Centre; the University's modern languages courses; and the University's contribution to "The Keep" resource centre.

The University of Sussex undertakes a range of activities which benefit the local community, most notably through its efforts to widen participation in higher education, tutoring and mentoring in schools, and the volunteering activities of students. The local community also benefits from the Sussex Innovation Centre, the University's sports facilities, modern language teaching, and the University's contribution to "the Keep" resource centre.

7.1 Widening participation in higher education

7.1.1 Socioeconomic barriers to higher education

Research shows that young people from more disadvantaged backgrounds in England are five times less likely to enter university than their more advantaged peers.²⁵ Studies of educational attainment have consistently shown that parents' level of education affects children's educational achievement. In a study using UK data, Chevalier (2004) found that after allowing for other influences such as parents' income, labour market status and neighbourhood characteristics, each year of parents' education increases the probability of students staying on after GCSE exams by as much as eight percentage points – an impact greater than the six percentage point increase that followed the introduction of the education maintenance allowance.²⁶ In the United States, Oreopoulos *et al.* (2006) showed that each additional year of education for either parent substantially reduced the probability of children dropping out of high school.²⁷

Parents' level of education also impacts children's performance in GCSE exams. In turn this performance influences the predicted levels of achievement in A levels (if taken) that are often an important component of the university admission process. A recent study found that one extra year of education for parents raised children's GCSE scores by approximately 14 points – equivalent to

²⁵ Jerrim, J., Vignoles, A. & Finnie, R., 2012. *University access for disadvantaged children: a comparison across English-speaking countries*, London: Department of Qualitative Social Science, Institute of Education, University of London; Working Paper 12-11.

²⁶ Chevalier, A., 2004. *Parental education and child's education: a natural experiment*, s.l.: Institute for the study of labor (IZA), Discussion Paper No.1153.

²⁷ Oreopoulos, P., Page, M. & Stevens, A., 2006. The intergenerational effects of compulsory schooling. *Journal of Labour Economics*, 24(4), pp. 729-760.

over two grades – with the effect even more pronounced when the focus was on parents with relatively low levels of education.²⁸

7.1.2 Lifetime income benefits to graduates from disadvantaged backgrounds

For students from more disadvantaged backgrounds, a university education impacts significantly on expected lifetime incomes. Greenaway and Haynes (2003) highlight a number of studies which suggest the lifetime income of a graduate is around £400,000 higher than a non-graduate.²⁹ Sloane and O’Leary (2004) find that the wage premium for university graduates (compared to someone who has achieved two or more A-levels but has not entered university) is 20% for men and 35% for women. Compared to those with no formal educational qualifications, the earnings premium for men is 97% and 102% for women.³⁰

Table 7.1: Wage premiums associated with a University education

	University Wage Premium Relative to A-Level	University Wage Premium Relative to no Formal Qualifications
Male	20%	97%
Female	35%	102%

Source: Sloane & O’Leary (2004)

As well as offering the benefit of higher lifetime earnings, university education is also likely to provide benefits to employers of graduates and the economy more generally. Higher average earnings by graduates reflect their higher levels of productivity. This higher productivity supports the efficiency of organisations for which graduates work and feeds into the local, regional and national economies via a higher level of GDP per worker.

7.1.3 University of Sussex initiatives

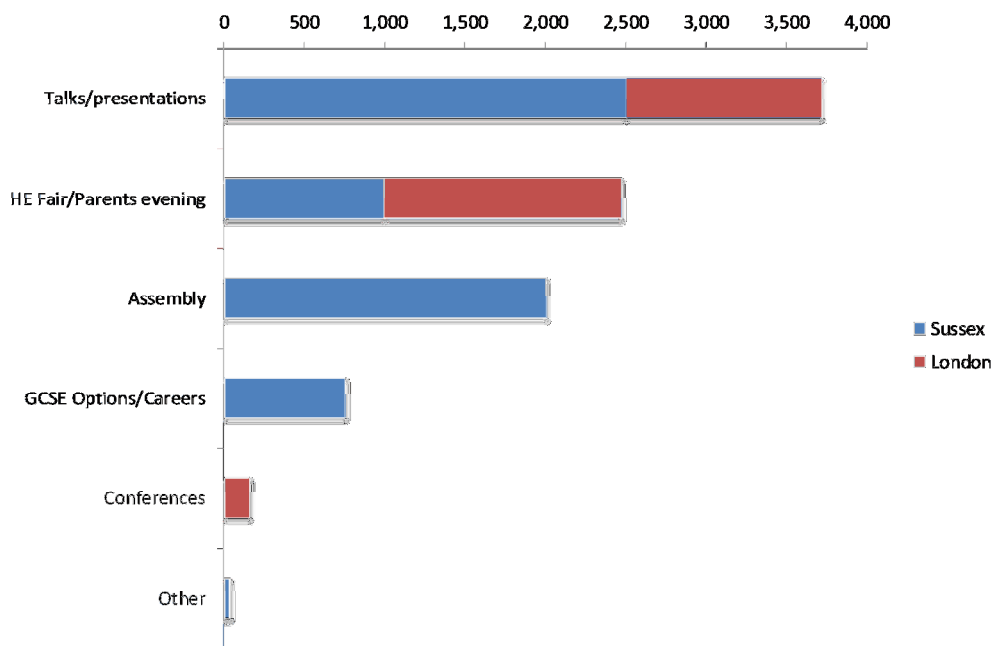
To encourage and promote higher education the University of Sussex runs an extensive programme of schemes and events in partnership with secondary schools and colleges in surrounding areas. This programme includes both centrally-led initiatives, and specific academic activities led by academic schools.

²⁸ Dickson, M., Gregg, P. & Robinson, H., 2013. *Early, late or never? When does parental education impact child outcomes?*, Bristol: Centre for Market and Public Organisation, University of Bristol, Working Paper No 13/298.

²⁹ Greenaway, D. & Haynes, M., 2003. Funding higher education in the UK: the role of fees and loans. *The Economic Journal*, February, Volume 113, pp. F150-F166.

³⁰ Sloane, P. J. & O’Leary, N. C., 2004. *The return to a University education in Great Britain*, s.l.: Institute for the Study of Labor (IZA), Discussion Paper No 1199.

Chart 7.1: Number of participants at University of Sussex outreach events in 2012/13



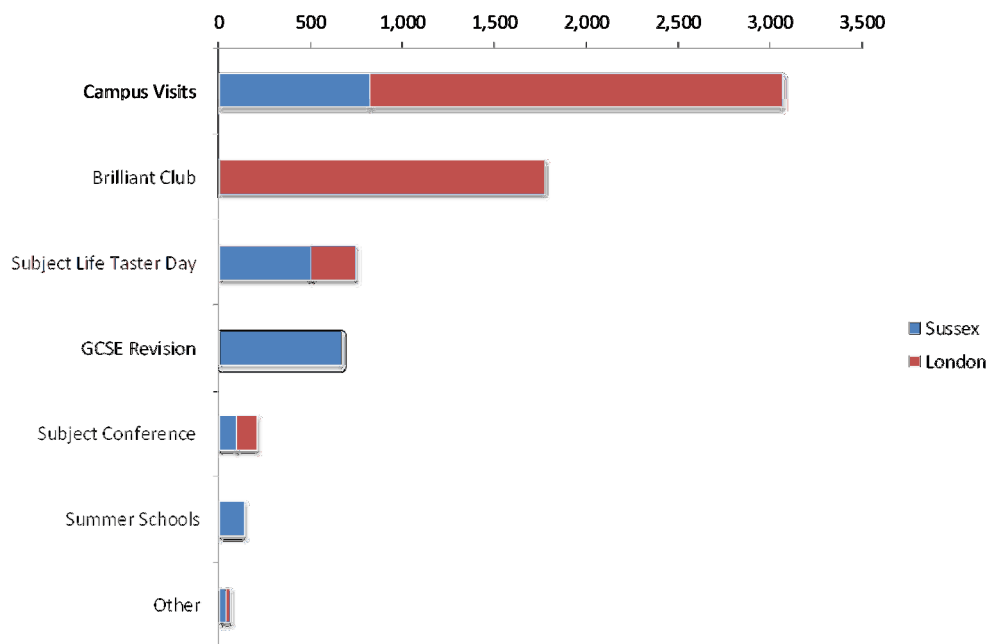
Source: University of Sussex and Oxford Economics

In 2012/13, there were a total of 84 outreach events in Sussex schools and colleges, and 24 in London. Over 9,000 participants attended these events, which included talks/presentations, higher education fairs, parents evenings, and school assemblies (Chart 7.1).

The University also organised 154 'in-reach' events for young people from Sussex and London at the University campus. Over 3,000 young people visited the campus, and 750 participated in 'life taster days' organised by academic departments (7.2).

A further 1,800 young people from London attended "Brilliant Club" events at the University to introduce young people to the scheme's programme and university life. The Brilliant Club aims to widen access to higher education for outstanding pupils from areas with low rates of higher education take-up, by placing PhD students in schools to develop knowledge, skills and ambition to enable pupils to access top universities.

Chart 7.2: Number of participants at University of Sussex in-reach events in 2012/13

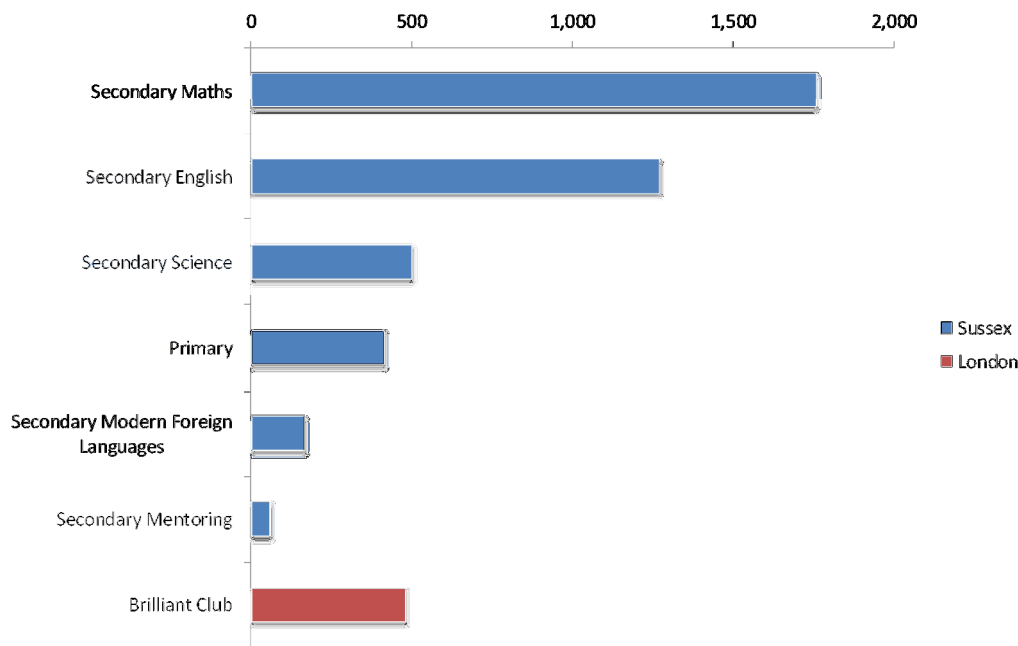


Source: University of Sussex and Oxford Economics

Another area in which the University is active in local schools is through tutoring and mentoring. In 2012/13, University of Sussex students provided 4,200 hours of tutoring in local schools. Almost three-quarters of the hours provided were in secondary level maths and English. In addition, eight PhD students provided a total of 480 hours of tutoring in London schools in association with the Brilliant Club (Chart 7.3). Based on average hourly wage rates in London and the South East, the total value of tutoring and mentoring was £82,000.³¹

³¹ Provisional data from the ONS 2012 Annual Survey of Hours and Earnings suggests the gross median hourly wage for “teaching and other education professionals not elsewhere classified” is £21.22 in London and £17.28 in the South East. Multiplying these values by the number of hours of tutoring in each region gives a total estimated value of £82,209.

Chart 7.3: Hours of tutoring and mentoring provided by the University of Sussex within schools in 2012/13



Source: University of Sussex and Oxford Economics

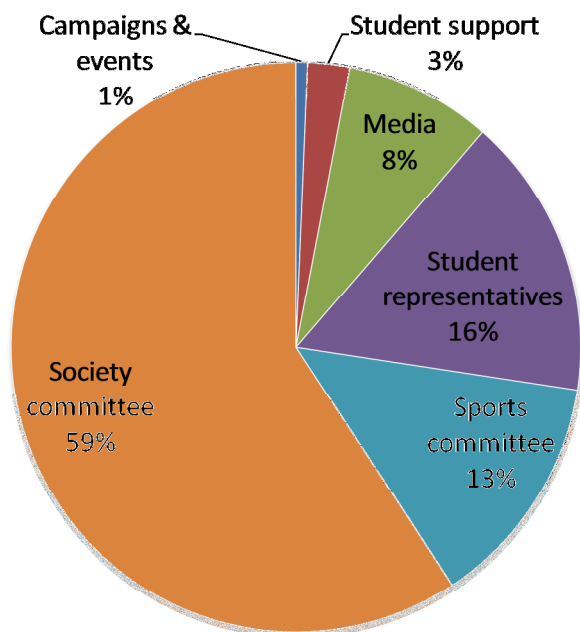
7.2 Student volunteering

Over 1,000 University of Sussex students gave up their time to work as volunteers during 2012/13, either to enhance student life through the activities of the Students' Union, or to undertake work in the local community.

85 per cent of student volunteers worked in roles linked to the Students' Union in 2012/13 and each student dedicated an average of 112 hours to their role during the course of the year.

Almost six in every ten Students' Union volunteering hours were dedicated to committee work for student societies (Chart 7.4). Student representative work accounted for a further 16 per cent of hours, and running sports clubs contributed 13 per cent of hours. The remainder of hours were made up of work on student media (UniTV, University Radio Falmer, and the Badger student newspaper), student support (including welcoming new students, providing IT support, student advice, and manning the Students' Union reception), and organising campaigns and events.

Chart 7.4: Students' Union volunteering hours by activity in 2012/13



Source: University of Sussex and Oxford Economics

In 2012/13, over 150 students worked as volunteers in the local community. A wide range of organisations benefited from student volunteers in 2012/13 across sectors including the arts, social care, the environment and youth work.

Student volunteers can bring significant benefits for the community organisations they work within, primarily by generating additional capacity to undertake the organisation's activities and benefit a larger number of people. The involvement of students often also brings new ideas and raises awareness of community organisations, which means the benefits of student involvement can outlast the actual period of volunteering.

The students donate time, rather than money, to the organisations they help. Nonetheless, it is possible to estimate the value of this time using data on average hourly wages for workers in the types of roles fulfilled by the student volunteers. It is estimated this amounted to around £35,000 in 2012/13³².

7.3 Innovation Centre

The Sussex Innovation Centre is a wholly owned subsidiary of the University of Sussex. The Centre offers physical space and business support to help local businesses grow and increase their chances of commercial success. The Centre and its facilities are available for the use of the local business community, as well as those at the University who are seeking to commercialise their research.

³² The hours worked by each student were multiplied by gross hourly pay for equivalent occupations in the South East using provisional data from the ONS 2012 Annual Survey of Hours and Earnings.

The Centre provides office and innovation space on flexible terms, and provides an entrepreneurial community where entrepreneurs and academics can interact and share ideas. Crucially for new firms, it provides a professional environment that can provide confidence to potential clients or funders. The Centre uses selection criteria to ensure prospective tenants all have a new product, genuine market potential and entrepreneurial ambition. The Centre welcomes firms from all sectors, but particular areas of specialism include education technology, games, psychology in business, environmental technology and digital marketing.

In addition to physical space, the Centre supports new businesses in developing strategy and plans; developing sales and marketing strategies; and securing funding. It also provides support to set up accounts systems; undertake book keeping and payroll services; and help develop accounting skills within firms.

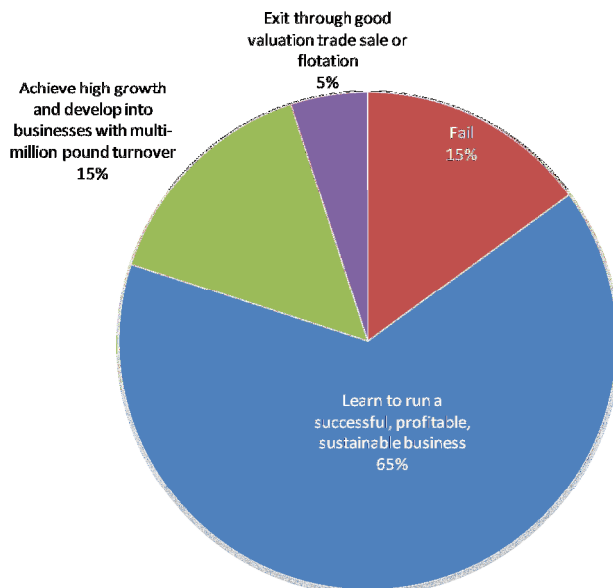
Around 40 high-growth potential technology companies are based at the Centre, most of which are innovating new products or services. The Centre is also home to two patent agents. Together these firms have an estimated turnover of £30-£35 million, and employ 300 people. Company sizes range from one to 25 employees.

There are a further 45 'virtual tenants' who use the Centre's address and support services. Most firms in this group have either recently been full tenants, are prospective full tenants, or are related to the University's own enterprise activities. Another 10 companies are based in the business centre in Ashdown House.

2012/13 was an extremely successful year for the Innovation Centre, and highlights included:

- five companies each grew to employ 20-30 staff and are now seeking to graduate from the Centre;
- Ambiental (which specialises in flood risk mapping) and Destiny Pharma made investments totalling £2 million;
- two firms announced they would be leaving the centre: Maths Doctor, which was bought by Macmillan, and Electromotive, which announced a merge and float deal with Chargemaster; and
- the Centre Director, Mike Herd, received the Queen's Award for Enterprise.

Since its launch, the Innovation Centre has developed a strong record in growing businesses. Almost two-thirds of firms have developed into a sustainable business. A further 15 per cent of firms have developed into businesses with annual turnover of several million pounds, and five per cent have left the Centre after being sold or floated. Only 15 per cent of firms have resulted in failure (Chart 7.5).

Figure 7.5: Performance of firms at the Sussex Innovation Centre since the Centre's launch

Source: Sussex Innovation Centre

The Innovation Centre also plays a wider role in supporting local economic development through its involvement in the Coast to Capital Local Enterprise Partnership (LEP). As well as sharing its expertise and experience in innovation and entrepreneurship, the Centre provides practical support to the LEP, for example to develop bids and secure funding from the Regional Growth Fund and the government's City Deals programme.

7.4 Sports facilities

The University Sports Centre is open to members of the public, as well as University staff and students. It has a wide range of facilities including:

- Two multi-purpose sports halls
- Fitness room
- Four championship squash courts
- Dance and martial arts studios
- Therapy room and sports injury clinic
- Tennis and netball courts
- Floodlit artificial turf pitch
- Grass sports pitches for cricket, football, rugby, etc.

In 2012/13, members of the public accounted for seven per cent of the Sports Centre's 3,700 members (Chart 7.6), and accounted for nine per cent of the 137,000 visits to indoor facilities (Chart 7.7). In addition, local children made 1,100 visits to the Centre's Easter and Summer camps.

Chart 7.6: Sports Centre memberships in 2012/13

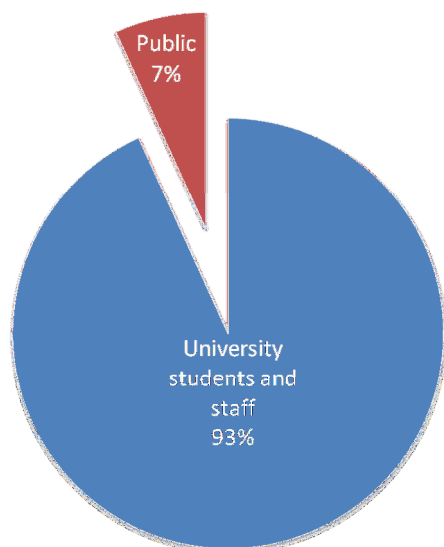
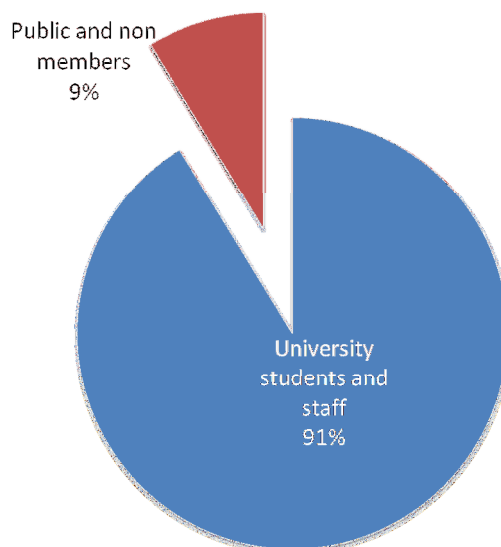


Chart 7.7: Visits to indoor facilities in 2012/13



Source: University of Sussex and Oxford Economics

7.5 Modern languages courses

The University’s Sussex Centre for Language Study offers weekly courses in 16 modern languages which are open to university students, staff, members of the local community and businesses. In 2012/13, one third of the 750 individuals enrolling in the courses had no relationship with the University (Chart 7.8).

The University also runs English language courses. Just over 900 people enrolled in those courses in 2012/13, 400 of whom went on to become students on award-bearing courses at the University.

Chart 7.8: Enrolments in modern languages courses in 2012/13



Source: University of Sussex and Oxford Economics

7.6 The Keep

The University is a partner in a new state-of-the-art historical resource centre based in Falmer near the University campus, which opened in late 2013. The project is funded by East Sussex County Council, Brighton and Hove City Council, as well as the University. The Keep houses archives, documents and historical records of the two councils. The University has contributed its Special Collections, which include manuscripts by Rudyard Kipling and Virginia Woolf, and the internationally renowned Mass Observation Archive. Overall, the Keep has the capacity to house over six miles of resources dating back over 900 years.

The local community can access the facility, use it as a research resource and benefit from its lecture and public reading rooms. Local schools, colleges, volunteer groups and societies are also able to visit the Keep.

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