

THE ECONOMIC AND SOCIAL IMPACT OF THE UNIVERSITY OF SUSSEX

MAY 2023

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EXECUTIVE SUMMARY

CORE ECONOMIC IMPACTS

The University of Sussex makes an important economic and social contribution to Greater Brighton (GBCR), East Sussex and West Sussex. The University's positive economic effect is measured in the number of jobs supported, value added created and tax revenues generated from its activities, its students and the visitors it attracts.

The University of Sussex supported close to 6,800 jobs across Greater Brighton in 2020/21 – equivalent to one in every 80 jobs in the area. The University itself sustained 2,830 of these jobs. Another 3,900 were supported off campus at Greater Brighton-based businesses. The majority of these – some 2,230 jobs – were stimulated by students' subsistence spending. Across Greater Brighton, East Sussex and West Sussex, the University supported over 7,200 jobs.

The University made a substantial contribution to the economic output of Greater Brighton – in 2020/21, this amounted to a £428 million gross value added (GVA) contribution to GDP.¹ This was almost 1.5 percent of the total GDP of Greater Brighton. Some £207 million of this contribution was created by the University itself, with £75 million stimulated through supply chain and wage spending. The spending of students and visitors supported further contributions of £146 million and £1 million to GDP, respectively – based on student presence at Sussex prior to the pandemic restrictions. Across Greater Brighton, East Sussex and West Sussex, the University made a GVA contribution to GDP of £454 million.

All this activity raised funds for the Exchequer. In 2020/21, the University, its overseas students and visitors' spending generated **£114 million in tax revenues**, based on student presence at Sussex prior to the pandemic restrictions.

While the University makes an important contribution to the economy of Greater Brighton, East Sussex and West Sussex, its economic footprint also covers the length and breadth of the UK. In 2020/21, the University, its students and visitors were responsible for a £495 million gross value added contribution to UK GDP, based on student presence

£428 mn

Total GVA contribution of University of Sussex to Greater Brighton during 2020/21.



£114 mn

Total tax revenues supported by University of Sussex during 2020/21.



¹ Current prices are used in this report for monetary variables (2021 prices). Where constant prices have been used, it is specifically stated.

at Sussex prior to the pandemic restrictions. Their additional expenditure also supported more than 7,800 jobs across the country, based on student presence at Sussex prior to the pandemic restrictions.

WIDER IMPACTS

The University's graduates enhance the skilled talent pool available to employers in Greater Brighton and across the rest of the South East and the UK.² In the 2020/21 (2018/19) academic year, 7,147 (7,120) individuals graduated from the University. Over one-quarter of the 2018/19 graduates who were in-work were employed in Greater Brighton, East Sussex and West Sussex 15 months after graduation. Of these, 40 percent were employed in 'socially significant' roles, including as teachers, social workers and doctors.

The University boosts the UK's human capital stock. We find that the University of Sussex's investment in skills during 2020/21 increased the UK's stock of human capital by some £897 million. This reflects the change in highest qualification level among first degree qualifiers during that year. Higher qualification levels benefit both workers and employers through increased productivity, improved competitiveness and technological innovation.

The Sussex 2025 plan to boost entrepreneurialism has had a noticeable impact, with a rise in Knowledge Exchange income, a jump in the number of graduate start-ups since 2018/19 and a doubling of employment in active spin-out businesses since 2017/18. The Sussex 2025 plan paved the way for the

establishment of five new academic-led spin outs during 2018/19 to 2020/21 and has enabled exponential growth in graduate start-ups. There were 37 graduate start-ups in the three years from 2018/19 to 2020/21.

In 2020-2021, the University worked with a total of 440 businesses to help address their R&D challenges and to provide companies with specialist services – with total commercial contract values from businesses amounting to approximately £6.3 million.³ In addition, the University granted 79 licences to companies to exploit its Intellectual Property for commercial use in 2020-21, ranging from medical software to quantum computing and graphene applications.

The University is also supporting local businesses through newly appointed dedicated staff and programmes, as well as through the facilities and business services offered by the Sussex Innovation, a wholly owned subsidiary of the University. Sussex Innovation helps firms with new products, notable market potential and entrepreneurial ambition. In 2020/21 (2018/19), the Centre



² Rest of the South East refers to the South East NUTS 1 region excluding the seven local authority districts (LADs) that make up Greater Brighton. The South East has 68 LADs, Greater Brighton has seven LADs, and the remaining 61 LADs make up the rest of the South East.

³ HESA Higher Education – Business and Community Interaction Survey 2020-21.

offered more than 12,500 (12,100) hours of support to local SMEs. The majority of this was provided by the Centre's Catalyst Intern Team and its Accounts Team.

R&D IMPACTS

The University of Sussex is globally recognised for its research activity, with 89 percent of its research ranked as world leading or internationally excellent by the Reference Excellence Framework (REF) 2021. Furthermore, it is one of only nine universities in the UK to hold a QS world number one ranking. The University of Sussex was awarded the QS world number one ranking in Development Studies.

The University also attracts significant research funding, driving widespread economic and social benefits. In 2020/21, it received £38.9 million in funding for research across many disciplines – from life sciences to economics and engineering.

This spending generates long-term benefits for society at large: the University's R&D spending in both 2018/19 and 2020/21 generated a boost to national GDP in the following decades, reaching £31.3 million by 2030.⁴ Put differently, its R&D spending generates wider economic returns through productivity growth of 40 percent, which is twice as high as estimates of social returns to UK public R&D investment.⁵

The University's research income from commercial sources has steadily grown to £10.3m (£6.9m) in 2020/21 (2018/19). The growth of research income from commercial sources has cushioned the impact of the reduction in funds received from the European Commission in the same period. Given the uncertainty surrounding the future of the European Commission's funding, as well as the relatively static levels of funding from UK Research Councils and UK-based charities (a challenge faced by many UK universities), attracting more research funds from commercial sources will be vital to the University's research activities.

By developing new and improved products and processes, the University's research activities foster innovation. In 2020/21 (2018/19), it was granted four (five) new patents, taking its stock of patents to 129 (87). It collaborated with local firms by undertaking 341 (303) pieces of contract research worth £13.4 (£12.7) million and 106 (85) pieces of consultancy worth another £3.0 (£3.8) million in the same year.

The University is also leading research in quantum technology, with projects in the field worth approximately £35 million, and the University having the third most research groups (of all UK universities) exploring quantum technology. Around one-third of live quantum technology projects are developed with an industrial partner. Therefore, the University is well positioned to lead the development of this disruptive technology. This technology could potentially bring economic benefits,



⁴ Please note – Constant 2021 prices are used to enable a comparison of R&D impacts across time.

⁵ Report for the Department for Business, Innovation and Skills (BIS), "Rates of return to investment in science and innovation", 2014.

including investment, to the local economy. In undertaking this research, the University of Sussex has collaborated with 41 universities in 16 countries across the globe.

The University of Sussex has a strong presence in biomedicine and biochemistry. The REF for 2021 rated 92 percent of the research in biological sciences as internationally excellent or higher, with 34 percent rated as world leading. This area has the strongest industry collaboration out of all disciplines at the University. Spin outs and industrial partnerships add to the bio-innovation cluster within Greater Brighton, East Sussex and West Sussex.

SOCIAL IMPACTS

The University of Sussex is an “anchor institution” for Greater Brighton, East Sussex and West Sussex. It provides a range of benefits from the provision of employment, spending and skills; R&D leadership; technical innovation; collaboration and support with local business; partnerships with the cultural sector; input into policy development; and through the students and visitors it attracts.

In June 2020, Sussex was awarded the title “University of Sanctuary” in recognition of its efforts to welcome and support forced migrants. This recognises the University’s actions and commitments to promote a culture of welcome, safety and inclusion across its campuses and its support to Brighton and Hove City Council’s commitments to the City of Sanctuary Charter.

During the COVID-19 pandemic, the University played an important role through providing accommodation for NHS and armed forces staff, who were unable to return to their family homes – helping to prevent the spread of the virus and safeguarding the families of key workers. The University also offered facilities to the NHS, hosted a testing station on its campus, and two Sussex academics were members of sub-groups of SAGE. Through responsive application of its Knowledge Exchange funding, the University’s engineering staff and students designed, manufactured and donated face shields to the Royal Marines, enabling the Marines to support the mass vaccine rollout. Sussex mathematicians also designed a predictive modelling software toolkit to enable local hospitals and social care services to better manage their intensive care services. This has been further developed in partnership with the healthcare consortium and will be rolled out to a wider range of health and social care activities.

The University has a strong commitment to widening participation to students from disadvantaged and under-represented backgrounds. Although impacted by the social restrictions resulting from COVID-19, the University’s widening participation team ran outreach events, targeting those less likely to apply for higher education through workshops, presentations and summer schools. The University also continues to support disadvantaged students during and after their studies. The University planned to provide £6.1 million in financial support to students during 2020/21.

The University’s **Equality, Diversity and Inclusion** Strategy – Inclusive Sussex – is fundamental to its success. The strategy sets out how Sussex will take bold action to ensure the campus is one that is

COVID response

The University of Sussex provided free accommodation to NHS and armed forces staff, and provided academic advice to SAGE during the pandemic.



experienced as inclusive by all communities. This includes understanding and addressing power relations and the intersecting inequalities experienced by members of the community.

The University of Sussex actively engages with the local community. It has been one of the largest partner organisations for both the Brighton Festival and Brighton Pride (both events have generated millions of pounds of business activity in the city). In addition, the Sussex Clinical Legal Education facility in the University's Law department offers a variety of pro-bono services to the local community. The University launched its Spirit of Sussex Award scheme for students in September 2020. This scheme offers a range of volunteering opportunities in the local community and by August 2021, over 700 students were participating.

The University also promotes the local economy to a global audience. The University of Sussex attracts students from more than 160 countries around the world. Students born outside of the UK accounted for 32 percent of students during both 2020/21 and 2018/19; whereas individuals born outside of the UK accounted for 12 (13) percent of the Greater Brighton, East Sussex and West Sussex's population. Some 63 percent of international alumni had returned to visit since graduating. International alumni also serve as powerful ambassadors for the local area, with some 77 percent reporting that they have recommended visiting Greater Brighton, East Sussex and West Sussex to friends and family back home, and 90 percent of those saying that at least one person has visited on their recommendation. The University's global networks could potentially be harnessed to foster business-to-business links and help attract inward investment to the region.

160 countries

The University of Sussex attracted students from more than 160 countries around the world during 2020/21.



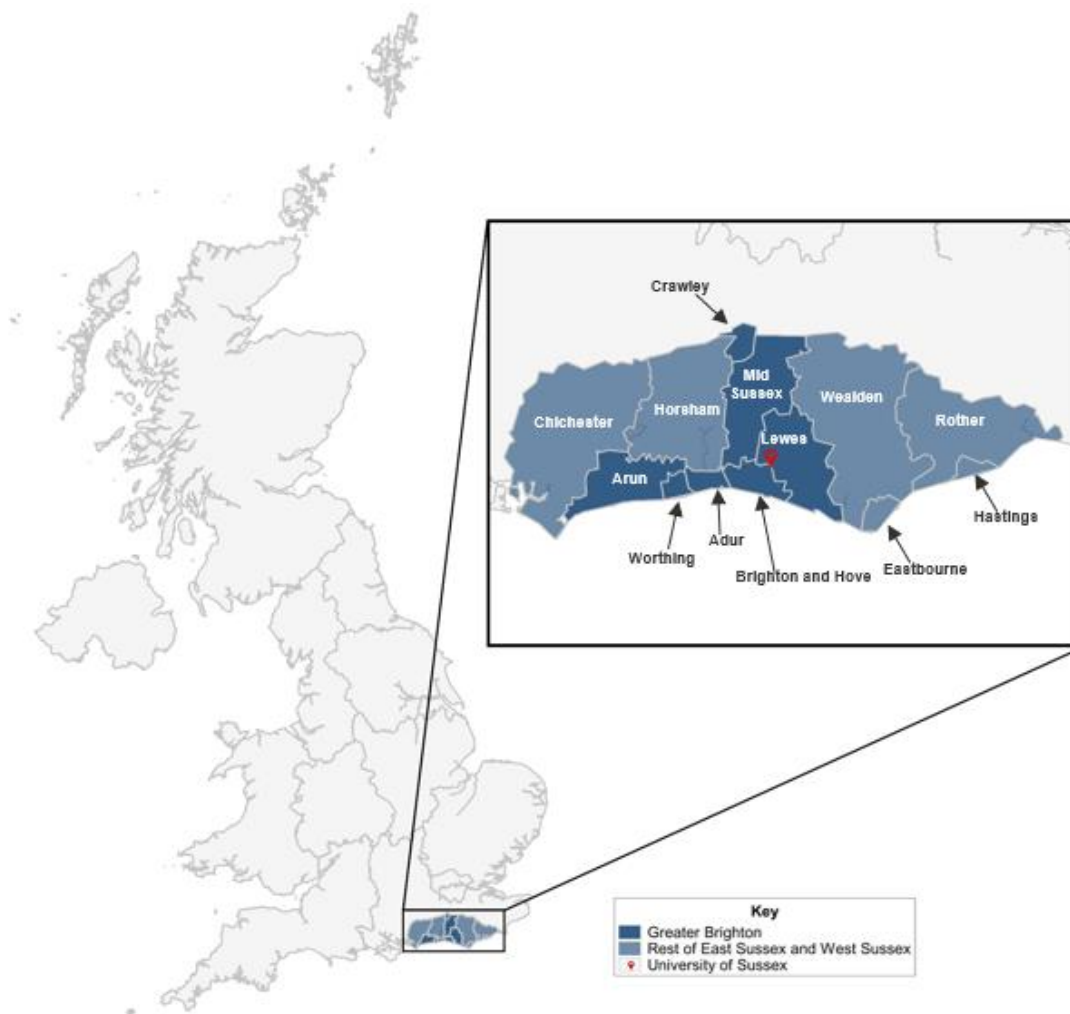
1. INTRODUCTION

The University of Sussex makes a significant economic and social contribution to the UK, Greater Brighton, East Sussex and West Sussex. It is an important source of employment and economic activity, both directly and indirectly, through its procurement and through the spending of its staff, students and visitors. In addition, by equipping students with skills and knowledge, the University supplies employers locally, as well as the wider UK economy, with a talent pool of skilled labour. It further boosts efficiency and productivity through its world-leading and internationally excellent academic research, and through collaboration with local, innovative business.

The University also plays an important role in raising the international profile of Greater Brighton, East Sussex and West Sussex. Not only does it attract students, staff and funding from across the globe, but it also enjoys well-established links with international education and research organisations. Its international alumni act as informal ambassadors, promoting the region around the world.

The University of Sussex promotes a strong community focus, undertaking a range of widening participation programmes to foster access to education for local people who traditionally would not have applied to attend a university. Students and staff volunteering, and other civic participation, enhances the local area's cultural, environmental, social and sporting offer, while the University itself supplies local residents and businesses with facilities and learning opportunities.

Fig. 1. Map of University of Sussex and local geographies covered in this study



GEOGRAPHICAL CONTEXT

While there is benefit to the whole of the United Kingdom, the economic impact sections of this report focus mainly on Greater Brighton – which is the area that demonstrates the greatest economic benefit associated with the University.

However, the rest of East Sussex and West Sussex also share considerably in these benefits. Therefore, summary tables are included throughout these sections which show comparative results for both Greater Brighton and for Greater Brighton, East Sussex and West Sussex.

In this report, Oxford Economics has quantified, where possible, the University’s economic footprint on Greater Brighton. Also covered is a qualitative discussion of the University’s wider role as an anchor institution contributing to civic leadership and sustainability, local policy and economic growth through the entrepreneurship and business collaboration.

AN INTRODUCTION TO ECONOMIC IMPACT ANALYSIS

This study quantifies the economic contribution made by the University of Sussex to a number of geographic areas, using an analytical method called an Economic Impact Assessment. The results presented are for the academic years 2018/19 (the last full year before the pandemic) and 2020/21.

To assess the University's contribution, this report examines three channels of expenditure which stimulate economic activity in the local area (Fig. 2):

- The University's **direct impact** is the economic activity generated by the University itself.
- The **indirect impact** of the University is the economic activity generated through supplier purchases made in order to fulfil university, student and their visitors' orders.⁶
- The **induced impact** arises as the University, its suppliers and those serving students and visitors pay wages to their staff, which are onward spent in the local consumer economy.

The total economic impact of the University of Sussex is the sum of these three channels. The scale of the University's impact is measured using three metrics:

- **Gross value added** is the contribution an institution or company makes to Gross Domestic Product (GDP). It is most simply viewed as the value of its output minus the cost of the inputs of goods and services used up in its production. It is the measure the Office for National Statistics (ONS) uses to quantify the contribution to the economy of each individual producer, industry or sector.⁷ Values are measured in current prices, making no adjustment for inflation.
- **Employment**, measured on a headcount basis to facilitate comparison with ONS employment data.
- **Tax revenue**, including all income taxes, National Insurance Contributions (NICs), corporation taxes and other indirect taxes (such as VAT) attributable to the University's activities.

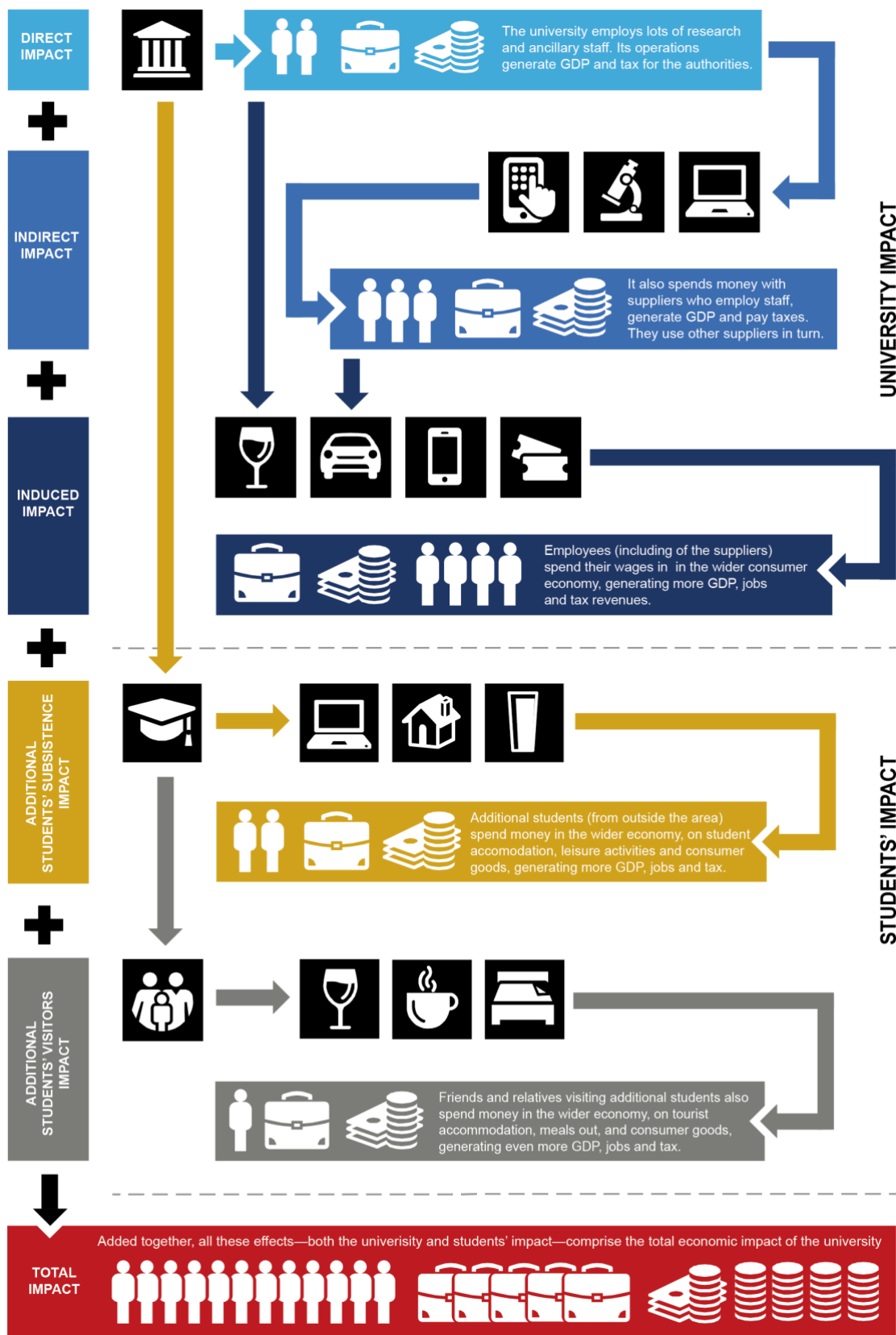
The results are presented on a gross rather than net basis.⁸ It does not attempt to estimate what economic benefits could arise if the labour and capital resources employed by the University were put to alternative uses, as it is impossible to know what they would have produced if they were employed in their next most productive use. Nor does it address the activity that the University displaced from other institutions or sectors.

⁶ The UK IO table which underlies the modelling of indirect and induced impacts in this study is the 2017 ONS edition, which was the latest available at project commencement.

⁷ Gross value added (plus net taxes on products) is aggregated to form the basis of GDP, the main measure of the total level of economic activity in a country.

⁸ This is a standard procedure in the analysis of the economic impact of individual industries or businesses.

Fig. 2. The channels of economic impact



The remainder of this report discusses the different ways the University contributes to the local economy:

- Chapter 2 examines the 2020/21 economic impact generated by the expenditure of the University, its students and visitors on the economies of the UK, Greater Brighton, East Sussex and West Sussex, modelled on student presence at Sussex prior to the pandemic restrictions.
- Chapter 3 investigates the University's wider economic impact, including its contribution of graduate talent and its entrepreneurial impacts.
- Chapter 4 discusses the University's R&D activity and focuses on bio-innovation and quantum technology.
- Chapter 5 sets out the University's social impact including its role as an anchor institution, its commitment to widening participation, community engagement, how it influences society and culture and how it attracts international students and their visitors to Greater Brighton, East Sussex and West Sussex.
- Chapter 6 concludes.

2. ECONOMIC CONTRIBUTION IN 2020/21

This chapter explores the economic contribution that the University of Sussex made to Greater Brighton and the rest of the UK in 2020/21.⁹ Again, we explore three types of expenditure – the University’s own spending, subsistence spending by its students, and spending by those visiting students, open days and graduation ceremonies, modelled on student presence at Sussex prior to the pandemic restrictions. Whilst there were no graduation ceremonies during the pandemic, these took place immediately after restrictions were lifted.

2.1 THE ECONOMIC IMPACT OF THE UNIVERSITY

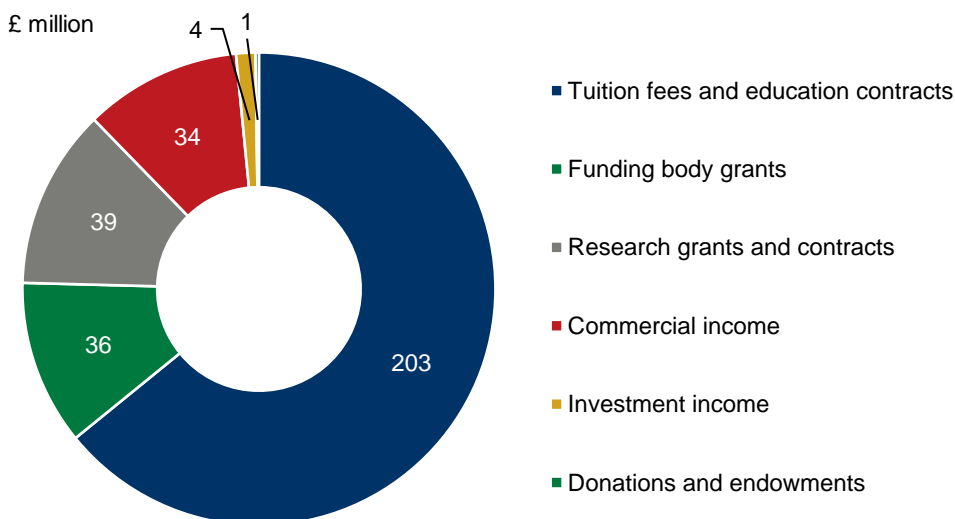
The University of Sussex’s own economic contribution is made up of three channels: direct, which is the economic activity at the campus; indirect, which is the economic activity supported by the University’s spending with suppliers; and induced, which is the economic activity sustained by those employed by the University and the firms in its supply chain spending part of their income in the consumer economy.

2.1.1 The University’s direct impact

In 2020/21, the University of Sussex earned £316 million in income. Nearly two-thirds of this total was paid to the University for its teaching services. The University also earns revenue by providing other services, including accommodation and catering (Fig. 3), modelled on student presence at Sussex pre-pandemic.

⁹ This chapter also shows the corresponding impacts the University makes to Greater Brighton, East Sussex and West Sussex. Both Local Authority and Parliamentary Constituency level impacts constituting these economic geographies are laid out in the report’s appendices.

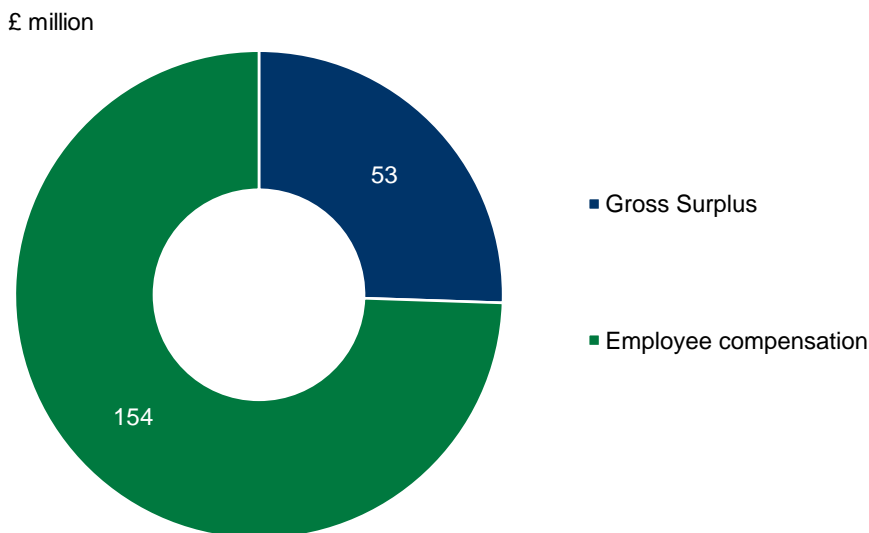
Fig. 3. University of Sussex’s income by activity, 2020/21



Source: University of Sussex

On these earnings, the University of Sussex made a direct gross value added contribution to GDP of £207 million in 2020/21. This is equivalent to 0.7 percent of the total economic output of Greater Brighton. To give a sense of scale, this contribution is over twice the size of the gross value added contribution made by the entire information & communication sector in Mid Sussex.¹⁰ Some £154 million of this contribution was comprised of employee compensation, accounting for 74 percent. The remaining 26 percent was made up of the University’s gross surplus (Fig. 4).

Fig. 4. University of Sussex’s gross value added contribution to GDP, 2020/21



Source: University of Sussex

¹⁰ The information & communication sector in Mid Sussex made an estimated £97 million in GVA contributions in 2021 based on Oxford Economics’ UK LAD model.

The University of Sussex employed close to 2,830 people in 2020/21.¹¹ This means that 0.5 percent of all employment across Greater Brighton was at the University.

The University employs people across the skills spectrum. In 2020/21, just under half of staff were working in academic roles (48 percent), with a further 40 percent working in management, administration and specialist functions. The remaining staff were employed in technical and other roles.

Through this direct employment alone, the University generated some £41 million in tax receipts during 2020/21. This contribution is sufficient to pay the annual wages of 1,260 nurses in the South East.¹² This tax contribution is made up of income tax, and employers' and employees' National Insurance Contributions. Due to its charitable status, the University does not pay corporation tax.

2.1.2 The University's indirect impact

To deliver its teaching, research and other services, the University of Sussex purchases millions of pounds of inputs from suppliers, many of which are based in the Local Authority areas that make up Greater Brighton. This expenditure stimulates economic activity along the length of the University's local and national supply chains.¹³

The University's spending can be broadly split into two categories. First, operational expenditure, which is the purchase of goods and services that are inputs into the day-to-day operations of the University, such as books and academic journals, computer equipment and utilities. Second, capital expenditure, in which the University purchases and develops longer-term assets to support operations over a number of years. This includes investment in the construction of new facilities.

In 2020/21, the University of Sussex spent £36 million on operational procurement (Fig. 5) with suppliers based across Greater Brighton. This equated to 39 percent of the University's total operational spend of £91 million.¹⁴ A further £9 million was spent with suppliers in the rest of the South East, while £39 million was spent across the rest of the UK. Finally, £7 million – eight percent of the total – was comprised of imports.

¹¹ Employment is measured on a headcount basis to facilitate comparison to official national statistics.

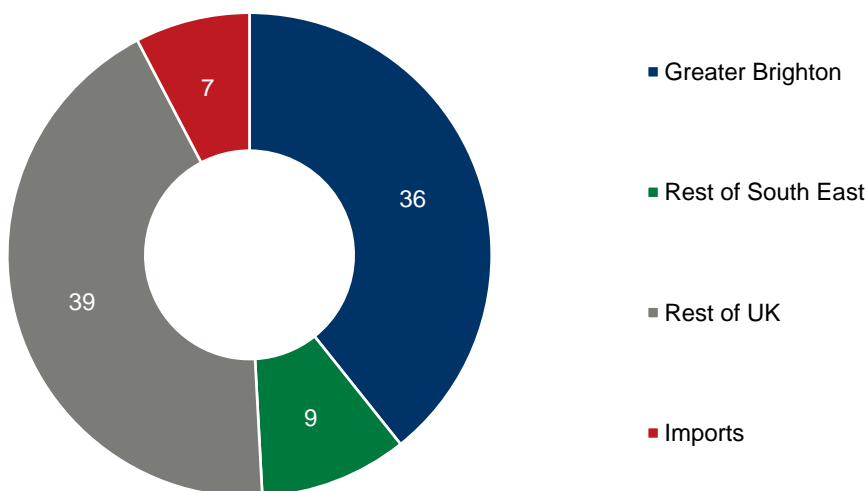
¹² ONS, Annual Survey of Hours and Earnings; Region by occupation (4 digit SOC) - ASHE: Table 15.7a 2021.

¹³ The UK IO table which underlies the modelling of indirect impacts along supply chains in this study is the 2017 ONS edition, which was the latest available at project commencement.

¹⁴ This operational spend figure excludes payments of scholarships, bursaries and prizes, and a foreign exchange gain. Including these items, the University spent £109 million in 2020/21 (University of Sussex's Financial Statements 2018/19).

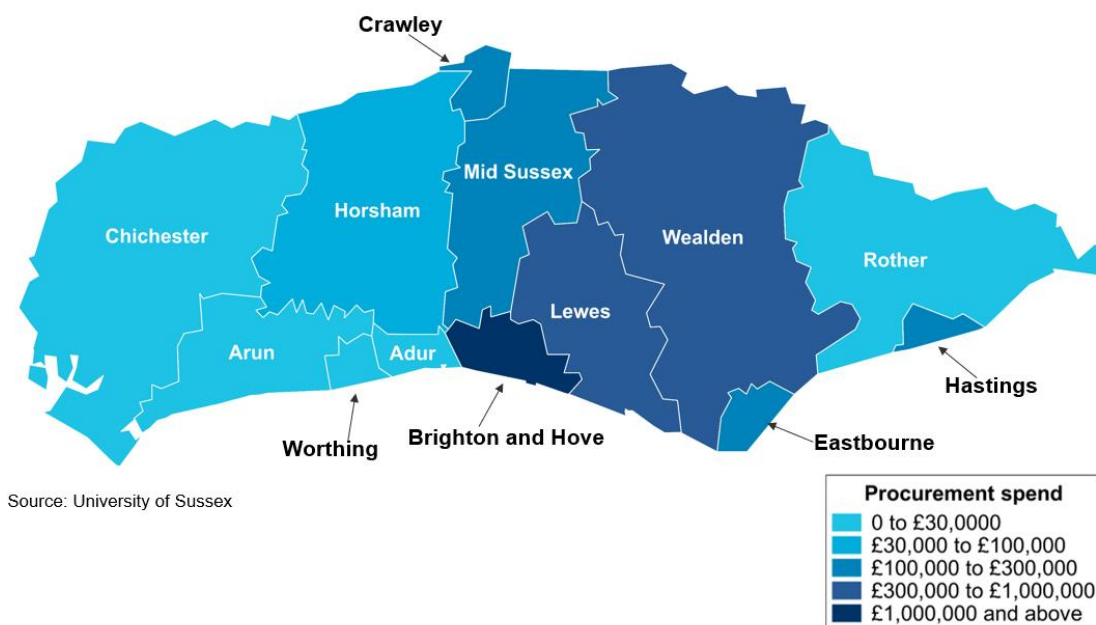
Fig. 5. University of Sussex’s operational spending by location, 2020/21

£ million



Source: University of Sussex

Fig. 6. University of Sussex’s operational spending, Greater Brighton, East Sussex and West Sussex, 2020/21

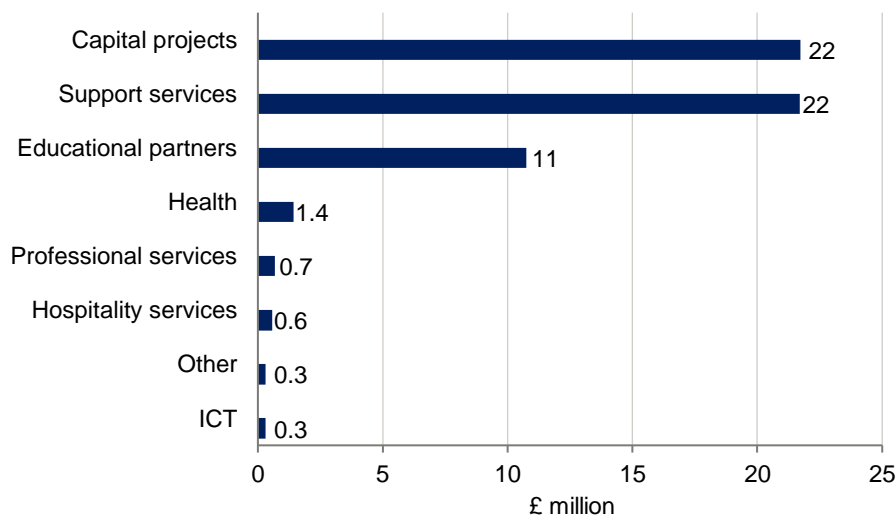


Source: University of Sussex

The University of Sussex made capital investments totalling £22 million in 2020/21. A significant proportion of this investment was used to develop both existing and new facilities on campus. This spending in turn also stimulated economic activity along local supply chains. Of this total, almost £6 million was spent on the Student Centre.

Considering both operational procurement (Opex) and capital spend (Capex), the University spent £57 million with suppliers across Greater Brighton in 2020/21. This spending benefited a wide range of industries in the area. Spending on capital projects and support services collectively made up the largest share, together accounting for three-quarters of total spend within Greater Brighton (Fig. 7). Spending with educational partners and the health industry ranked second and third, accounting for 19 percent and three percent of the total, respectively.

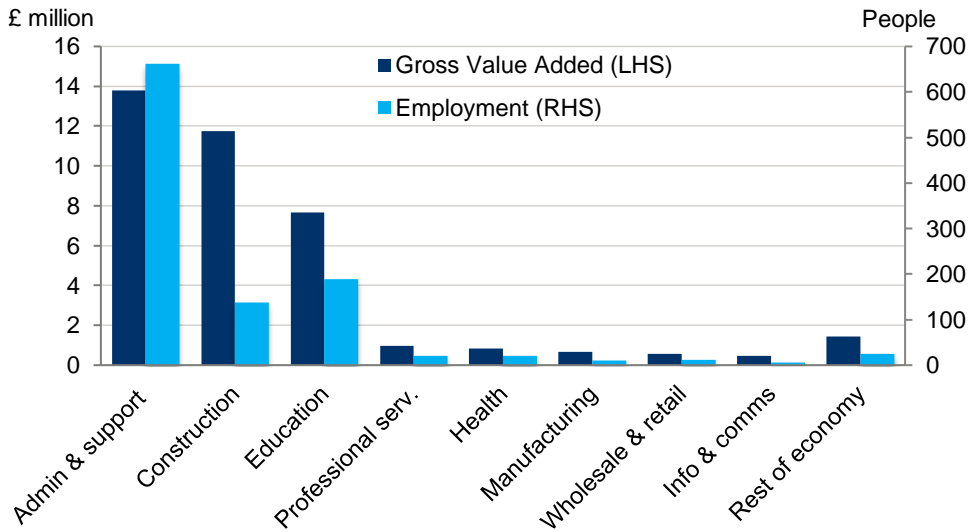
Fig. 7. University of Sussex’s total spending in Greater Brighton by category, 2020/21



Source: University of Sussex, Oxford Economics

This expenditure stimulated an estimated £38 million gross value added contribution to GDP across Greater Brighton. The largest share of this contribution was generated by the administrative & support sector, accounting for over one-third of the total (Fig. 8). The construction sector and education sector generated a further 31 percent and 20 percent of the total, respectively.

Fig. 8. University of Sussex’s indirect impacts, Greater Brighton 2020/21



Source: Oxford Economics

The University’s procurement sustained almost 1,080 jobs in Greater Brighton in 2020/21. The administrative & support sector and education sector enjoyed the largest employment boosts, collectively accounting for over three-quarters of the total supported employment.

In addition to supporting many Greater Brighton businesses, the University’s expenditure stimulates economic activity across the rest of the UK. Tracing its total operational and capital spending along the length of its national supply chain, including Greater Brighton’s impacts discussed above, the University supported a £99 million gross value added contribution to UK GDP and 2,300 jobs throughout the country. Furthermore, the University’s procurement generated £23 million in tax receipts in 2020/21. This includes corporation tax, income taxes and taxes on consumption and production.

Fig. 9. University’s indirect economic impact by benefiting region, 2020/21

	Opex/ Capex spend	Indirect GVA	Indirect employment
Greater Brighton	57	38	1,080
Greater Brighton, East Sussex and West Sussex	58	40	1,130
UK	106	99	2,300

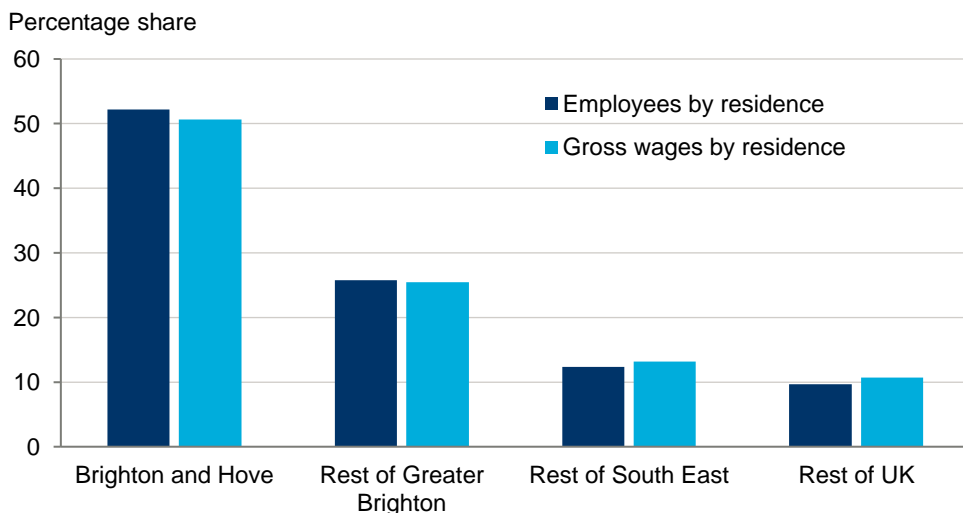
Source: Oxford Economics, ONS, University of Sussex

2.1.3 The University’s induced impact

In 2020/21, the University of Sussex paid £92 million in gross wages to its 2,210 staff living in Greater Brighton (Fig. 10). These comprised 0.6 percent of all the wages paid to residents living in

this area in that year. After income tax and National Insurance Contributions, some £70 million was potentially available to Greater Brighton staff to spend.¹⁵

Fig. 10. The University of Sussex payment of wages and staff numbers by home address, 2020/21

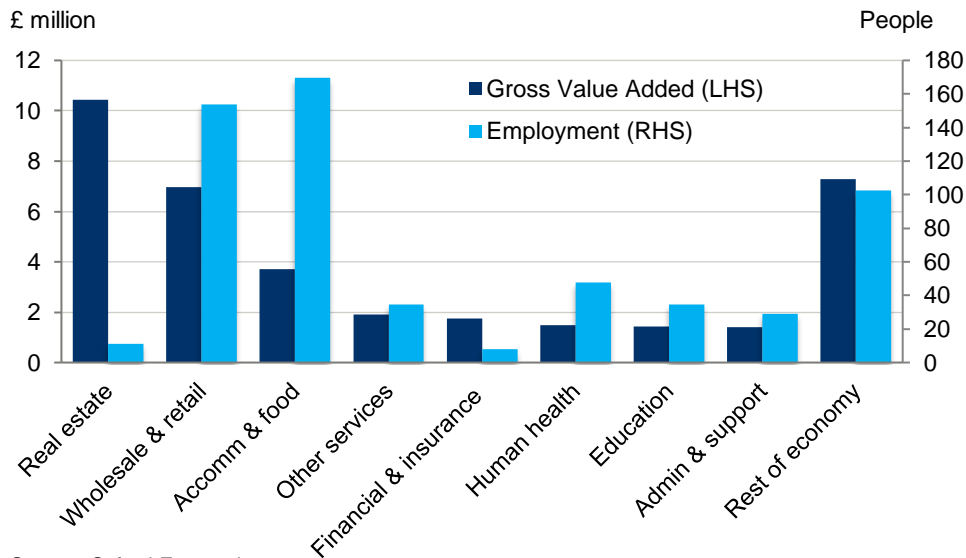


Source: University of Sussex, Oxford Economics

The wage-financed consumption of both the University’s staff based in Greater Brighton and those employed in the Greater Brighton supply chain is estimated to have stimulated a £37 million gross value added contribution to GDP in Greater Brighton. Analysing this contribution by sector, the largest share of £10 million was generated by the real estate sector, accounting for over a quarter of the total (Fig. 11). The wholesale & retail sector and accommodation & food services sector generated 19 percent and 10 percent of the total, respectively.

¹⁵ The UK IO table which underlies the modelling of induced impacts (consumer spending impacts) in this study is the 2017 ONS edition, which was the latest available at project commencement.

Fig. 11. University of Sussex induced impact, Greater Brighton, 2020/21



Source: Oxford Economics

This wage-financed spending stimulated 590 jobs within Greater Brighton. Some 170 (or 29 percent) of these jobs were in the accommodation & food services sector. A further 150 jobs (or 26 percent) were generated in the wholesale & retail sector.

These estimates only consider the spending of staff who live within Greater Brighton. This is likely an underestimate of the total wage-financed consumption impact in the area, as other staff who commute into the area will likely spend money in Greater Brighton’s restaurants, shops and other outlets during lunch breaks, and before and after work.

In 2020/21, close to a fifth of the University’s employees lived outside Greater Brighton – i.e. elsewhere in the UK. The University paid them an additional £29 million in gross wages. It therefore paid a total of £121 million in gross wages and salaries that year.

The University and the firms in its supply chain payment of wages stimulated a £137 million gross value added contribution to UK GDP in 2020/21. This economic activity sustained close to 1,920 jobs throughout the UK and generated £39 million in tax receipts.

Fig. 12. University’s induced economic impacts by benefiting region, 2020/21

	University personnel by residence		Induced GVA	Induced employment
	Staff	Wages (£m)		
Greater Brighton	2,210	92	37	590
Greater Brighton, East Sussex and West Sussex	2,480	104	43	720
UK	2,830	121	137	1,920

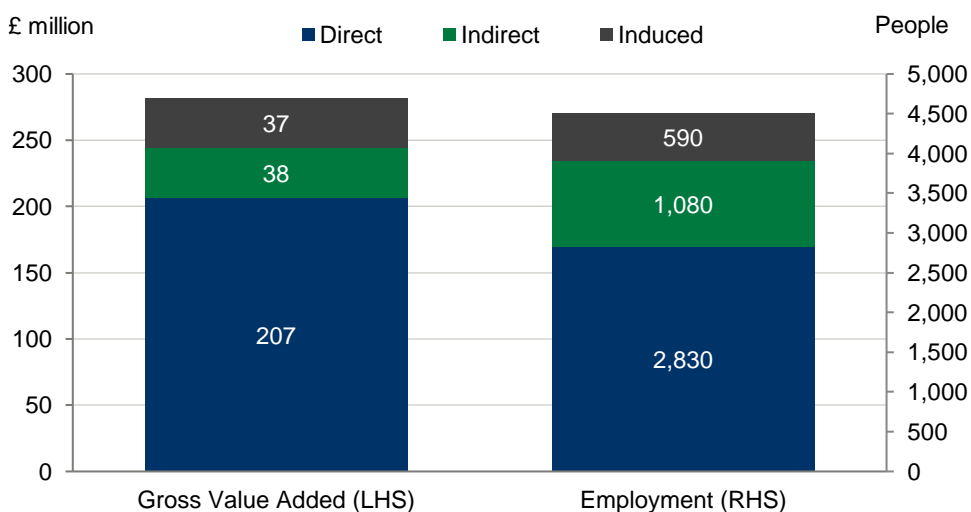
Source: Oxford Economics, ONS, University of Sussex

2.1.4 The University’s total impact

Taking the three channels of impact together, the University of Sussex supported a total gross value added contribution to GDP of £282 million across Greater Brighton in 2020/21. This was one percent of the total economic output produced in the region that same year.

The largest share of this contribution, 73 percent of the total, was generated by the University itself (Fig. 13). This means that the University has a GDP multiplier of 1.4; for every £1 million gross value added generated by the University itself, a further £400,000 is supported throughout the Greater Brighton economy via the University’s procurement and payment of wages.

Fig. 13. University of Sussex’s total impacts, Greater Brighton, 2020/21



Source: Oxford Economics

The University of Sussex’s operational expenditure, procurement and payment of wages is estimated to sustain more than 4,500 Greater Brighton jobs in 2020/21. This means that one in every 115 jobs in Greater Brighton was in some way dependent on the University’s expenditure.

Close to two-thirds of these workers were employed at the University itself (Fig. 14). **The University’s employment multiplier of 1.6 means that for 100 people employed at the University, a further 60 jobs are supported elsewhere in Greater Brighton.**

Fig. 14. University of Sussex’s total economic impacts by geography, 2020/21

	GVA (£m)			
	Direct	Indirect	Induced	Total
Greater Brighton	207	38	37	282
Greater Brighton, East Sussex and West Sussex	207	40	43	290
UK	207	99	137	443
	Employment			
	Direct	Indirect	Induced	Total
Greater Brighton	2,830	1,080	590	4,510
Greater Brighton, East Sussex and West Sussex	2,830	1,130	720	4,690
UK	2,830	2,300	1,920	7,050

Source: Oxford Economics, ONS, University of Sussex

Note: May not sum due to rounding

The University of Sussex’s operational impacts within Greater Brighton alone generated a £62 million tax contribution to the Exchequer in 2020/21. These tax revenues are sufficient to pay the wages of 1,520 police officers in the South East for one year.¹⁶

Examining the University’s impact on the UK as a whole, its operational expenditure, procurement and wage payments stimulated a £443 million gross value added contribution to UK GDP. The University’s UK GDP multiplier was 2.1, meaning that for every £1 million of gross value added generated by the University, a further £1.1 million is supported elsewhere in the economy. The higher national multiplier reflects the size of the University’s spending with suppliers outside of Greater Brighton, East Sussex and West Sussex.

The University’s operational expenditure, procurement and wage payments supported an estimated 7,050 jobs throughout the UK. This UK-wide economic activity sustained by the University’s spending also generated some £102 million in tax receipts for the Exchequer.

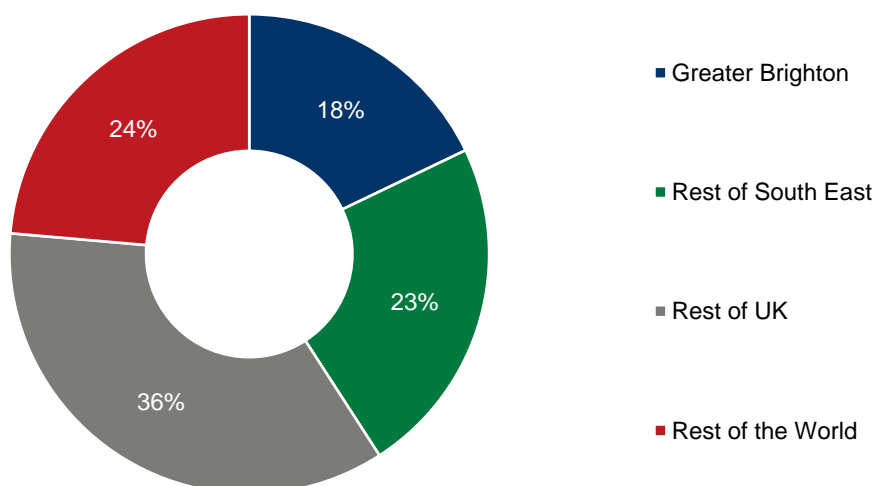
2.2 THE ECONOMIC IMPACT OF THE STUDENTS’ SUBSISTENCE SPENDING

The University of Sussex attracted students from more than 160 countries around the world in 2020/21. It also draws students from the rest of the UK to Greater Brighton and retains Greater Brighton students who might otherwise go elsewhere to study (Fig. 15). Figures for the impact of students’ subsistence spending have been modelled on levels of students’ additionality to Greater Brighton and Greater Brighton, East Sussex and West Sussex prior to the pandemic restrictions (see explanation below).

¹⁶ ONS, Annual Survey of Hours and Earnings; Region by occupation (4 digit SOC) - ASHE: Table 15.7a 2021.

Fig. 15. University of Sussex’s students by place of origin, 2020/21¹⁷

Share of enrolment



Source: University of Sussex

An estimated 15,450 of the University of Sussex’s students were estimated to be ‘additional’, having moved to Greater Brighton or stayed specifically to study at the University. These ‘additional’ students make up around 71 percent of the total student body. This included more than 8,300 students who moved from other parts of the UK; 3,500 students who came from overseas; and almost 3,650 students from Greater Brighton, who would otherwise have moved away to pursue their education. Full details of the methodology used to calculate the number of additional students can be found in the methodology appendix.

Additional students are estimated to have spent £202 million off campus in 2020/21, boosting economic activity at Greater Brighton businesses. This includes all expenditure on housing, food, personal items, entertainment, transport and other items (Fig. 16).¹⁸

The impact of the pandemic

Lockdown restrictions to tackle the pandemic significantly impacted habitation and spending patterns in 2020 and 2021. Unfortunately, we do not have any published data on how habitation and student spending were affected over this time. Therefore, and in keeping with widely accepted economic impact methodology, the latest data on habitation and spending patterns from 2018/19 have been applied to the 2020/21 student cohort split by place of residence. This approach is consistent with

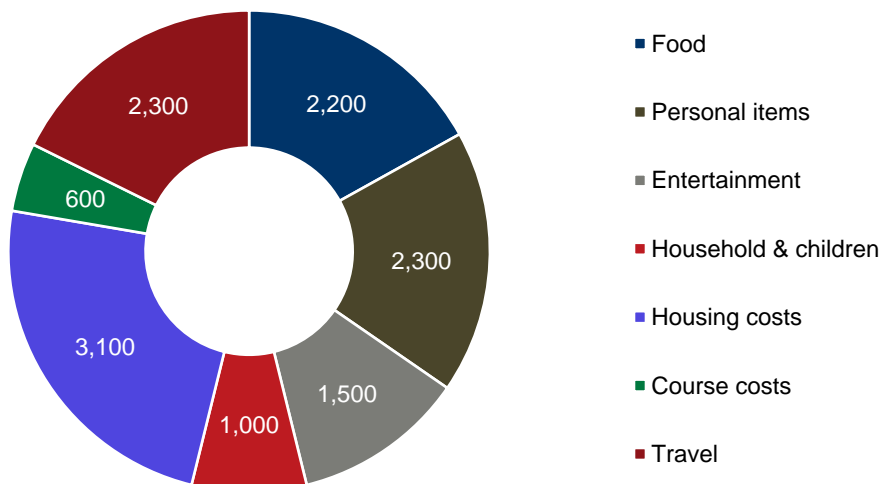
¹⁷ The wider Greater Brighton, East Sussex and West Sussex area was the place of origin for 24 percent of students in the same year.

¹⁸ Oxford Economics used the Department for Education’s 2018 publication “Student income and expenditure survey 2014 to 2015” as the source of data on students’ subsistence spending. Payments to the University (including tuition fees and for accommodation) were excluded, so as not to double count given these are included in the University revenue in Section 2.1.1.

other published University economic impact studies.¹⁹ This provides us with a robust measure of how the University’s student population typically spends, and this approach avoids having to make arbitrary and unfounded assumptions. Also, it is important to note there is ample evidence that students across UK universities are returning to normal pre-pandemic habitation conventions of living on or close to campus, and also normal pre-pandemic spending conventions.²⁰

Fig. 16. Average University of Sussex student’s subsistence spending, 2020/21

Annual spend (£)



Source: BIS, Oxford Economics

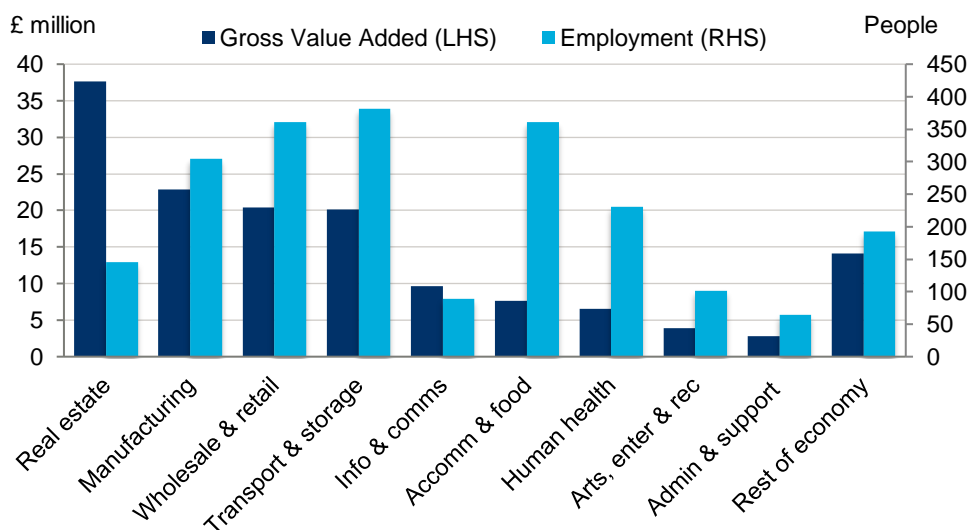
Additional students’ off-campus expenditure stimulated a £146 million gross value added contribution to GDP across Greater Brighton 2020/21. This contribution was around 0.5 percent of the area’s total GDP. It captures not only the value added generated by Greater Brighton-based businesses supplying goods and services to students, but also that created throughout their Greater Brighton supply chains, and supported by the wage-financed consumption of their staff.

Additional students’ subsistence spending boosted economic activity in the real estate sector the most; their expenditure on rent and housing transactions raised that sector’s gross value added by £38 million or 26 percent of the total (Fig. 17). The manufacturing and wholesale & retail sectors’ gross value added also increased by £23 million and £20 million, making up 16 percent and 14 percent of the total, respectively.

¹⁹ Oxford Economics, “[The economic benefits of the University of Bristol](#)”, 2022, accessed 2023.

²⁰ Please see Financial Times articles “Housing crunch leaves UK university students without halls” 29/8/2022 and “University expansion drive collides with UK student housing shortage” 8/11/2022.

Fig. 17. Impact of additional students’ subsistence spending, Greater Brighton, 2020/21



Source: Oxford Economics

Additional students’ off-campus subsistence spending also supported some 2,230 jobs across Greater Brighton. Some 17 percent of this employment impact, 380 jobs, was in the transport & storage sector. Student spending supported close to 360 jobs in each of the wholesale & retail and hospitality sectors, accounting for a combined 32 percent of the total employment impact.

It should be noted that only the spending of students living across Greater Brighton has been analysed, meaning that these estimates are conservative. Students who travel into Greater Brighton to study but live outside of the considered districts will also likely spend money in Greater Brighton, on transport to travel in or on food and other items before, in between, and after lectures and classes.

To estimate the impact of the University’s students on the UK, only the subsistence spending of international students has been examined. This is because only students moving from overseas to study at the University can be considered ‘additional’ to the UK population.

In 2020/21, the University’s 3,500 additional international student body spent an estimated £40 million off campus. This spending stimulated economic activity across a range of industries throughout the UK. In total, international students’ subsistence spending supported a £51 million gross value added contribution to UK GDP, some 820 jobs, and £12 million in tax receipts.

Fig. 18. Student subsistence spend impacts summary by geography, 2020/21

	Total students	...of which 'additional'	GVA (£m)	Employment
Greater Brighton	21,780	15,450	146	2,230
Greater Brighton, East Sussex and West Sussex	21,780	16,490	163	2,540

Source: Oxford Economics, ONS, University of Sussex

Note: Additionality is defined as moving to the local area or staying specifically to study

2.3 THE ECONOMIC IMPACT OF VISITORS

The University of Sussex attracts visitors from across the UK, and overseas, to Greater Brighton. Their spending with Greater Brighton businesses while visiting can also be considered part of the University’s total economic contribution to Greater Brighton. In this section, we consider the impact of spending by visitors to students, the spending of people attending graduation ceremonies, and the spending of prospective students and their relatives attending an open day.

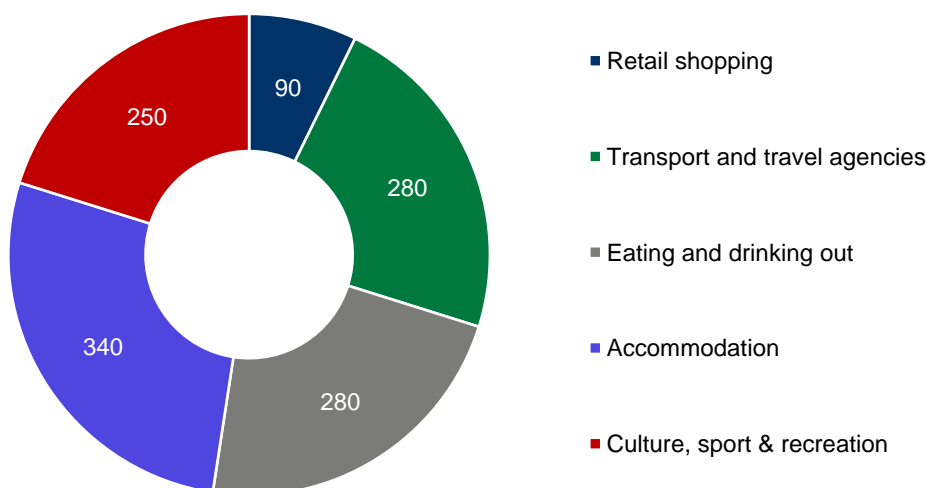
2.3.1 Visitors to students

The University of Sussex’s students attract visitors to Greater Brighton and the surrounding area – friends and relatives from the rest of the UK, and overseas, who travel to Greater Brighton to help students move in and out of their accommodation, and for visits during the students’ stay. These visitors spend money in the area, stimulating economic activity and employment at Greater Brighton businesses, and throughout their supply chains. Visitor spend is markedly lower than in previous years (see our 2018/19 year results) due to the impact of the pandemic and the associated restrictions on travel.

In 2020/21, visitors to students who moved from elsewhere in the UK or abroad to study at the University of Sussex spent an estimated £1.2 million. Most of this expenditure will have occurred in Greater Brighton on goods and services including transport, accommodation, hospitality, buying incidental items and visiting cultural, recreational and sport attractions (Fig. 19).

Fig. 19. Visitor spending by type, Greater Brighton 2020/21

£ 000s



Source: Oxford Economics

The spending of friends and family visiting students supported a £0.9 million gross value added contribution to GDP in Greater Brighton. Their spending further sustained an estimated 24 jobs across Greater Brighton.

The national impact of the spending by visitors to students has been estimated on the basis of overseas visitors only, similarly to the calculations for the impact of students' subsistence spending on the UK. International students' visitors from abroad spent an estimated £0.5 million in the UK in 2020/21.

The spending of these overseas visitors to students supported a £0.64 million gross value added contribution to UK GDP in 2020/21. This economic activity sustained around 13 jobs nationally and generated £0.2 million in tax receipts.

2.3.2 Graduation ceremony attendees and open day visitors

During the 2020/21 academic year, there were no graduation ceremonies held at the University due to pandemic-related restrictions. However, it should be noted that these ceremonies, and the associated visitor spend associated with them, were not entirely lost to the Greater Brighton economy as they eventually took place the following year.

The University of Sussex held a number of open days, which allowed for physical attendance during the year 2020/21. Thousands of prospective students, and their families and friends, attend one of these days. These visitors come from Greater Brighton, the rest of the UK and overseas. Those travelling to an open day often spend money in Greater Brighton on transport, food and accommodation, etc.

In 2020/21, 2,870 prospective students attended one of the University's open days. We estimate that these prospective students and their families spent £150,000 across Greater Brighton.

Taking these two streams of expenditure together, graduation ceremony and open day attendees supported an estimated £90,000 gross value added contribution to GDP across Greater Brighton. The spending associated with these visitors is estimated to have sustained close to three jobs across the Greater Brighton economy.

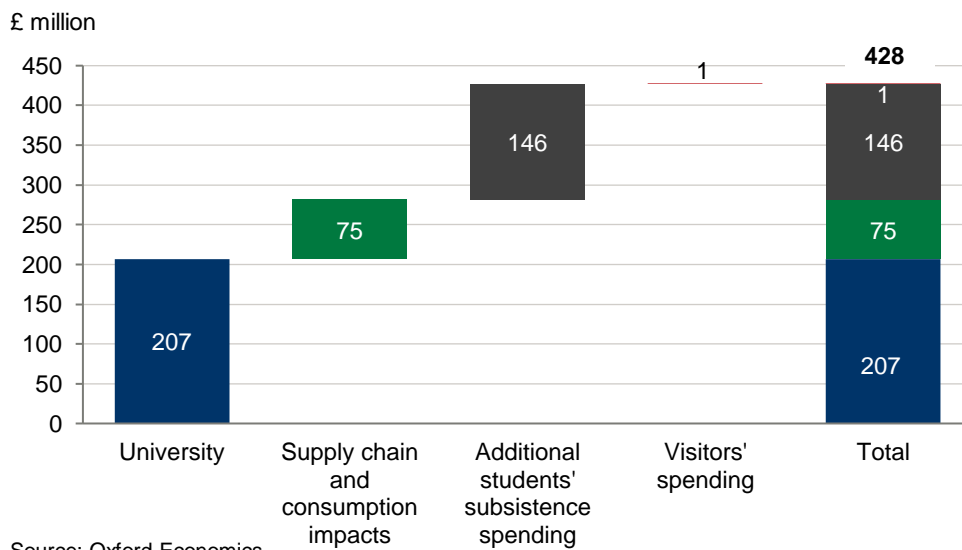
2.4 THE UNIVERSITY OF SUSSEX'S TOTAL ECONOMIC CONTRIBUTION

The total economic contribution that the University of Sussex makes to Greater Brighton and the counties of East Sussex and West Sussex is the sum of all the streams of expenditure it supports: the University's own expenditure, its procurement and payments of wages, the spending of additional students, and the expenditure of visitors to students, graduation ceremonies and open days.

The University of Sussex made an estimated £428 million gross value added contribution to GDP in Greater Brighton in 2020/21. This means that 1.5 percent of the region's total economic output was supported by the expenditure of the University, its students and visitors. This is equivalent to over a third of the total GDP of the Adur Local Authority District in the same year.

The University itself was responsible for the largest share of this contribution, generating almost half of the total (Fig. 20). Additional students' spending stimulated a further 34 percent of the total gross value added. The remainder was comprised of the University's expenditure impacts, contributing 18 percent, and the impact of visitors' spending, including students' visitors, and graduation ceremony and open day attendees, supporting less than one percent of the total.

Fig. 20. GDP impact of the University of Sussex, its students and visitors, Greater Brighton, 2020/21



Source: Oxford Economics

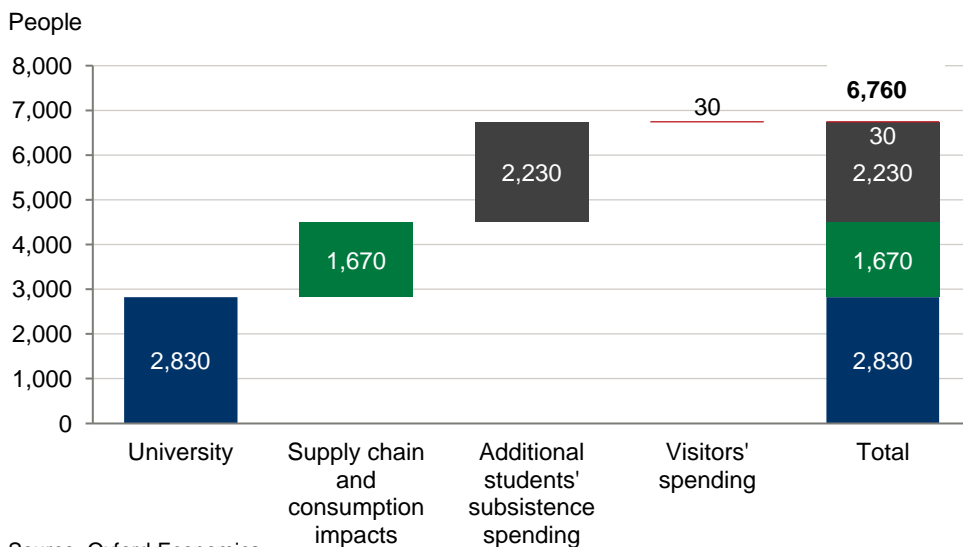
£ million	University	Supply chain/ consumption impacts	Additional students' subsistence spending	Visitors' spending	Total
Greater Brighton	207	75	146	1	428
Greater Brighton, East Sussex and West Sussex	207	84	163	1	454

Source: Oxford Economics, ONS, University of Sussex

In 2020/21, an estimated 6,760 jobs in Greater Brighton were sustained by the spending of the University of Sussex, its students and visitors, based on pre-pandemic levels of student presence at Sussex. This means that one in every 80 jobs in Greater Brighton was in some way dependent on the University. The total employment the University supports is equivalent to 16 percent of the workplace employment in Lewes.

Just over 40 percent of the employment impact is made up of jobs at the University itself (Fig. 21). The remaining 60 percent is stimulated elsewhere in Greater Brighton. The two largest off-campus impacts are from additional students' subsistence spending and the impact of the University's procurement and wage payments in Greater Brighton supply chains, which support a third and a quarter of the employment boost, respectively.

Fig. 21. Employment impact of the University of Sussex, its students and visitors, Greater Brighton, 2020/21



Source: Oxford Economics

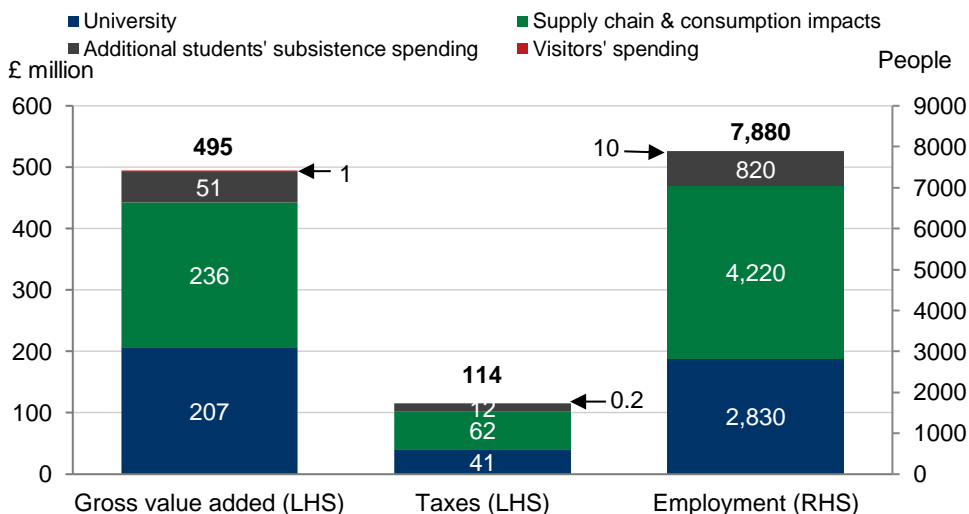
	University	Supply chain/ consumption impacts	Additional students' subsistence spending	Visitors' spending	Total
Greater Brighton	2,830	1,670	2,230	30	6,760
Greater Brighton, East Sussex and West Sussex	2,830	1,850	2,540	30	7,250

Source: Oxford Economics, ONS, University of Sussex

In the UK as a whole, the University of Sussex – together with its international students and overseas visitors – supported a £495 million gross value added contribution to GDP (Fig. 22).

The supply chain and wage consumption impacts are larger at national level than at Greater Brighton level, as the whole of the University's national supply chain is captured. On the other hand, the impact of students' subsistence spending is smaller, as only international students' spending is 'additional' to the UK economy.

Fig. 22. The total impact of the University of Sussex, its students and visitors in the UK, 2020/21



Source: Oxford Economics

The expenditure undertaken by the University, its students and their visitors stimulated more than 7,800 jobs across the UK. Close to a third of these are at the University itself, with the remaining two-thirds being found elsewhere in the national economy. The largest share of the employment, 54 percent, was sustained by the University's expenditure on goods, services and payment of wages component of which will be spent in the consumer economy. This employment total equates to almost 0.4 jobs supported per student enrolled at the University in 2020/21.

The economic activity stimulated throughout the UK by the University's spending, and that of its students and visitors, generated significant tax revenues. In 2020/21, this economic activity generated £114 million in tax receipts.

3. THE UNIVERSITY OF SUSSEX'S WIDER ECONOMIC IMPACTS

The previous chapter measured the core economic contribution that the University of Sussex makes to the UK, Greater Brighton, East Sussex and West Sussex. However, the University delivers significant wider benefits to the Greater Brighton, East Sussex and West Sussex economy and society. In this chapter, we discuss the wider economic benefits that arise from an annual flow of graduates and from entrepreneurial activity at the University.

3.1 GRADUATE TALENT

The University of Sussex provides students with a high-quality education, equipping them with the knowledge and skills required to go on to employment, further study or research. Many of the University's 2018/19 graduates stay post-graduation in the local economies that make up Greater Brighton, East Sussex and West Sussex (as detailed below), providing local employers with a steady flow of skilled labour.

3.1.1 The university as a supplier of skilled labour

In 2018/19²¹, 7,120 students graduated from the University of Sussex. Some 49 percent, 3,484 students, graduated from undergraduate degrees with the remaining 51 percent, or 3,636 students, completing a postgraduate degree. Most of these postgraduates (93 percent) were studying for a taught postgraduate degree, while seven percent were on a research programme.

Data collected for the 2018/19 "Graduate Outcomes survey" shows that University of Sussex graduates are highly employable. Almost 92 percent reported being in work or further study 15 months after graduation.²² Interestingly, 13 percent of in-work 2018/19 graduates were employed in a foreign country; this is in part a reflection of international students returning home after completing their studies.

The University of Sussex outperforms the sector nationally in terms of the proportion of graduates working in professional employment. Some 69 percent of graduates employed in the UK 15 months after graduating were working in professional or managerial occupations, compared to 51 percent of graduates nationally. Therefore the University is not just providing an annual flow of skilled labour to the local, regional and national economy, but the vast majority are being hired.

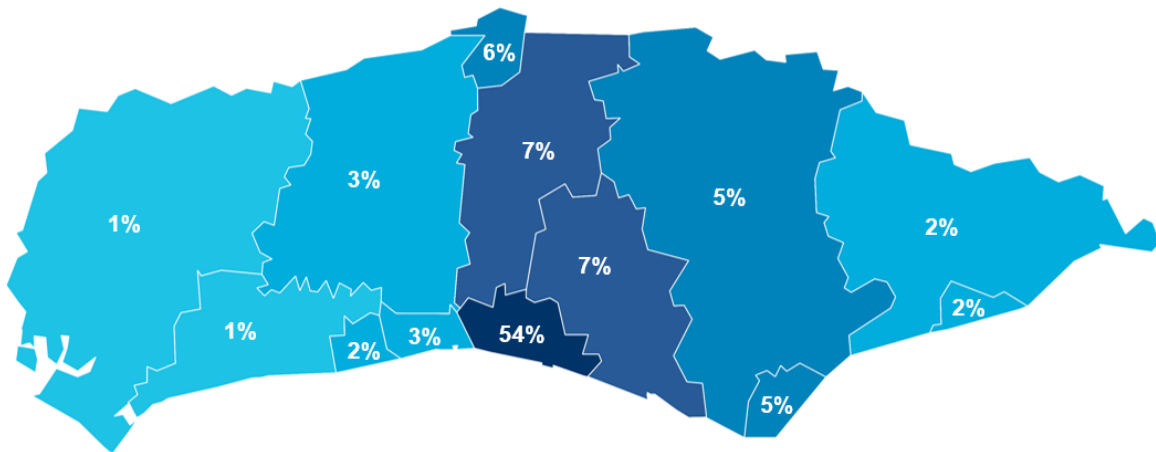
Over a quarter of University of Sussex's graduates entered the Greater Brighton, East Sussex and West Sussex labour market. The "Graduate Outcomes survey" for 2018/19 indicates that some 26 percent of the University's 2018/19 in-work graduates were employed in Greater Brighton, East

²¹ Please note – analysis here only includes 2018/19 academic year as data for 2020/21 was not yet collected when this study took place.

²² Higher Education Statistics Agency, Graduate Outcomes survey in the United Kingdom for the academic year 2018/19

Sussex and West Sussex 15 months after graduation. Fig. 23 shows that just over half of graduates in employment in Greater Brighton, East Sussex and West Sussex were working in Brighton & Hove.

Fig. 23. In-work 2018/19 University of Sussex graduates employment within Greater Brighton, East Sussex and West Sussex



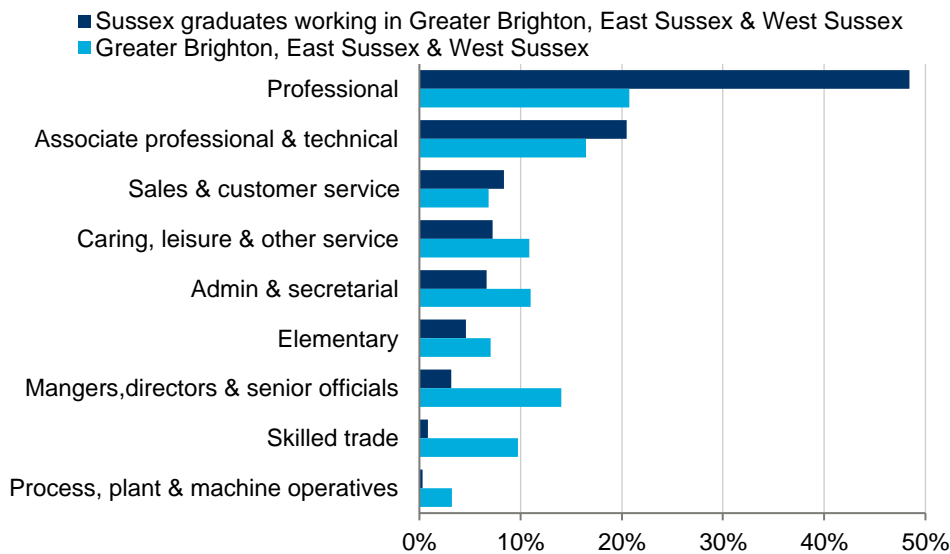
Source: University of Sussex

Many of the University’s graduates go into high-value positions. Some 48 percent of 2018/19 graduates working in Greater Brighton, East Sussex and West Sussex were employed in professional occupations in fields including science, research and engineering, teaching and healthcare (Fig. 24).²³ This is a substantial proportion when compared with Greater Brighton, East Sussex and West Sussex employment overall, where approximately 21 percent of all workers were employed in professional occupations in the year.²⁴ A further 20 percent of the University’s graduates working in Greater Brighton, East Sussex and West Sussex were employed as associate professionals and in technical occupations, compared with just over 16 percent of the total Greater Brighton, East Sussex and West Sussex workforce.

²³<https://www.ons.gov.uk/methodology/classificationsandstandards/standardoccupationalclassification/soc/soc2020/soc2020volume1structureanddescriptionsunitgroups>

²⁴ Employment by occupation by Local Authority district, Annual Population Survey 2020

Fig. 24. University of Sussex 2018/19 in-work graduates and Greater Brighton, East Sussex and West Sussex employment by occupation



Source: Oxford Economics, DLHE, NOMIS

3.1.2 University of Sussex’s boost to the UK’s human capital stock

The University’s data suggest that in 2020/21, some 4,208 undergraduates graduated from the University. For those who remain in the country, the education they received will deepen the pool of skills available within the UK workforce, which is a key driver of productivity and economic growth. Also, those who find work abroad will make contributions to the human capital stocks in those nations. The University’s data suggests that 3,368 of the 4,208 undergraduate graduates got a job in the UK post-graduation.

There is a strong body of literature on the economic benefits of higher education.²⁵ For the individual, the returns are an increased likelihood of being employed and receiving higher wages on average. The wage premia also point towards benefits for employers:

- Given that wages align with the productivity of a worker over the long term, salary uplifts are evidence of the additional capabilities gained by graduates.
- A highly skilled workforce supports higher profits and increased competitiveness, since better-trained employees can undertake more complex tasks and also tend to diffuse their knowledge throughout the organisation.
- Higher average skill levels support greater technological innovation and adoption, increasing the returns to investment in R&D.

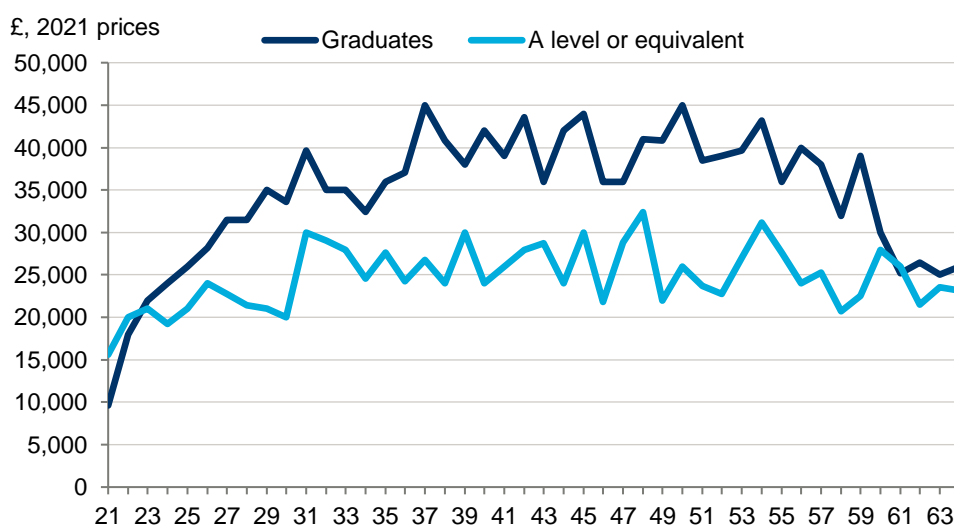
To estimate the value of education to students, we assessed the value of the University of Sussex’s education programmes by estimating the difference the qualification gained makes to a student’s

²⁵ McMahon, Walter. (2009). Higher Learning, Greater Good: The Private & Social Benefits of Higher Education

lifetime income. This would be expected to reflect the increase in productivity the graduates are able to achieve as a result of their training at the University. The approach adopted for this report follows the method used by the ONS' appraisals of the UK's human capital stock. This method estimates the discounted (present) value of individuals' future lifetime employment income.²⁶

With this approach, one can assess the value of a university's investment in skills by measuring the difference that the degrees make to students' lifetime incomes. This reflects the increased productivity and earnings associated with higher education.

Fig. 25. Average gross annual salary by age and highest level of qualification



Source: ONS, Department for Education, Oxford Economics

In the analysis that follows, we measure the impact of the University of Sussex's investment in human capital during the 2020/21 academic year. For this assessment, we mapped out the median lifetime earnings patterns of students graduating from their first undergraduate degrees against what they would have earned if they had A-levels or their equivalent. We then aggregated the graduate earnings premium across their lifetime for the 3,368 UK-domiciled 'first degree qualifiers' in 2020/21.

We find that the University of Sussex's investment in skills during 2020/21 increased the UK's stock of human capital by some £897 million. This reflects the change in highest qualification level among first degree qualifiers during that year.

As noted in the Appendix, this calculation assumes that the higher wages of graduates reflect their greater marginal productivity. In reality, other determinants of wages include place-specific dynamics of (local) labour demand and supply, collective bargaining, prevailing price levels, etc.

Moreover, the difference in the lifetime earnings of graduates and non-graduates is assumed to reflect the value of education delivered by the higher education institution, as proxied by the award of

²⁶ For more detail on this methodology, the assumptions underpinning it and its limitations, see the Appendix.

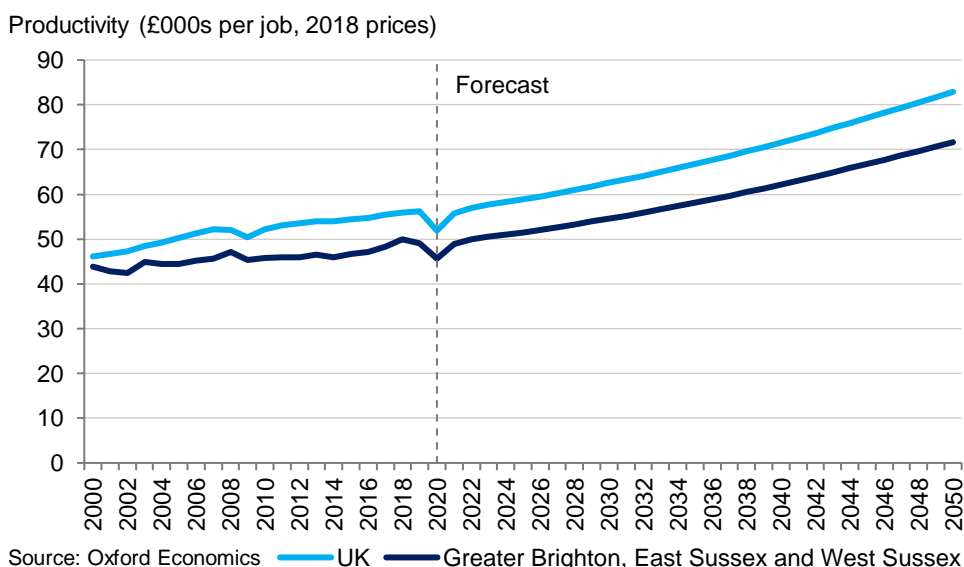
a degree. However, other structural variations between these two groups (such as their aspirations, expectations, self-belief, etc.) may also drive some of the observed divergence in lifetime earnings.

In addition to the above analysis on the University’s first degree qualifiers, the 2,352 postgraduate students who graduated from the University during 2020/21 and found employment in the UK would also contribute to the UK’s human capital stock. However, their contribution is typically harder to quantify and is not typically measured using increased lifetime earnings.

3.1.3 The importance of skilled labour

Greater Brighton, East Sussex and West Sussex have suffered a persistent and growing productivity gap over the past two decades. In 2000, this gap stood at £2,300 per job; by 2022, this gap had grown to £7,000.

Fig. 26. Productivity, Greater Brighton, East Sussex and West Sussex vs UK, 2000-2050



Almost four-fifths (79 percent) of the Greater Brighton, East Sussex and West Sussex’s productivity gap is due to its industry mix (i.e. its concentrations of lower value added sectors). For example, its GVA is relatively concentrated in human health & social work, which has below average productivity (Fig. 27).

Just over a fifth (21 percent) of the productivity gap is due to its sectors being less productive than the same sectors across the UK. For example, the average information & communication sector worker in Greater Brighton, East Sussex and West Sussex generates £52,595 in GVA in 2022, whereas the average UK worker in the same sector produces £84,527 in GVA in 2022. A steady supply of appropriately skilled labour will help to address the productivity gap, at least within sectors – though it is important to consider the extent to which the educational and skills outputs of the University should be aligned to Greater Brighton, East Sussex and West Sussex’s sectoral productivity gaps.

Fig. 27. Sectoral productivity and GVA shares, Greater Brighton, East Sussex and West Sussex and UK, 2022

Broad Sector	GB, ES, and WS		UK		Differences	
	Productivity	Share of GVA	Productivity	Share of GVA	Productivity	Share of GVA
Agriculture, forestry & fishing	£22,434	0.2%	£38,591	0.7%	-£16,157	-0.5%
Mining & quarrying	£30,090	0.0%	£55,520	0.2%	-£25,429	-0.1%
Manufacturing	£98,644	11.7%	£77,000	9.9%	£21,645	1.8%
Electricity, gas, steam & air	£264,404	2.5%	£205,013	1.4%	£59,390	1.1%
Water supply	£122,763	1.9%	£112,403	1.3%	£10,361	0.6%
Construction	£41,997	4.0%	£57,075	6.4%	-£15,078	-2.3%
Wholesale & retail trade	£33,163	8.7%	£43,189	10.2%	-£10,026	-1.6%
Transportation & storage	£41,019	5.9%	£45,807	4.1%	-£4,787	1.8%
Accommodation & food services	£25,205	4.3%	£25,137	3.1%	£69	1.2%
Information & communication	£52,595	4.2%	£84,527	6.5%	-£31,932	-2.3%
Financial & insurance activities	£75,966	6.8%	£150,490	8.0%	-£74,523	-1.3%
Real estate activities	£537,864	15.8%	£414,616	12.8%	£123,247	2.9%
Professional, scientific & technical	£26,320	4.3%	£48,739	7.9%	-£22,419	-3.6%
Administrative & support services	£30,201	5.5%	£32,561	5.1%	-£2,361	0.5%
Public administration	£62,635	4.3%	£61,360	4.9%	£1,275	-0.6%
Education	£36,650	6.4%	£39,154	5.8%	-£2,504	0.6%
Human health & social work	£33,373	9.8%	£36,869	8.3%	-£3,496	1.5%
Arts, entertainment & recreation	£30,388	2.2%	£33,720	1.6%	-£3,332	0.6%
Other services	£35,000	1.6%	£39,221	1.8%	-£4,221	-0.2%
Total	£50,020		£56,991		-£6,971	

Source: Oxford Economics, ONS

3.1.4 Graduate skills appear to be mapped to the strengths of the Greater Brighton, East Sussex and West Sussex economy

An analysis of graduates by subject area and recent/future sectoral performance suggests the supply of skills from the University maps to the needs of Greater Brighton, East Sussex and West Sussex businesses. Fig. 28 shows the ten university departments which produced the most graduates during 2018/19 and 2020/21 and how they map against Oxford Economics employment forecasts to 2035, for Greater Brighton, East Sussex and West Sussex.

Fig. 28. University of Sussex graduates from both 2020/21 and 2018/19 by department and sectoral employment forecast for Greater Brighton, East Sussex and West Sussex

University department	Number of grads 2018/19	Number of grads 2020/21	Potential sector of employment	Net change in jobs forecast for 2022 to 2035 (000s)
Education	689	742	Education	1.6
Psychology	413	595	Health & social work	18.9
Strategy and Marketing	453	555	Professional services	10.4
Media and Film	467	436	Info & comms	2.0
Accounting and Finance	500	364	Professional services	10.4
Life Sciences	397	462	Professional services	10.4
Law	384	462	Professional services	10.4
Management	444	368	Professional services	10.4
Economics	260	321	Professional services	10.4
English	274	280	Professional services	10.4

Note: the net change in jobs does not include the annual need to replace individuals that leave each sector (to retire, look after family members, change career or due to sickness, etc)

The health sector is currently the largest employer in Greater Brighton, East Sussex and West Sussex and is forecast to continue to be the largest employer in 2035, when employment in the sector is forecast to reach 143,110. This sector includes mental health practitioners, social services, counselling services and rehabilitation services – which serve as potential careers for many of the University’s graduates.

The stream of education graduates will ensure a healthy supply of labour for the education sector, which is currently the third largest employment sector in Greater Brighton, East Sussex and West Sussex, and is forecast to grow in net terms by 1,640 jobs between 2022 and 2035. In gross terms, the sector will require many more new entrants as it replaces staff lost due to retirement, illness, career changes, etc.

Professional services are currently Greater Brighton, East Sussex and West Sussex’s sixth largest employer. A net increase of 10,420 jobs is forecast for the sector between 2022 and 2035 – the third largest sectoral increase in terms of job creation. Graduates from a series of the University’s departments – including strategy & marketing, accounting & finance and life sciences – could find employment in professional services.

The University’s media & film graduates may find employment in Greater Brighton, East Sussex and West Sussex’s fastest growing sector – arts, entertainment & recreation. The established creative industries clusters in Greater Brighton, East Sussex and West Sussex will contribute towards the arts, entertainment & recreation sector, achieving employment growth of 1.3 percent per year during 2022 to 2035.²⁷

²⁷ Creative Industries in Greater Brighton: A progress report, Dr Josh Siepel, SPRU, University of Sussex, 2020.

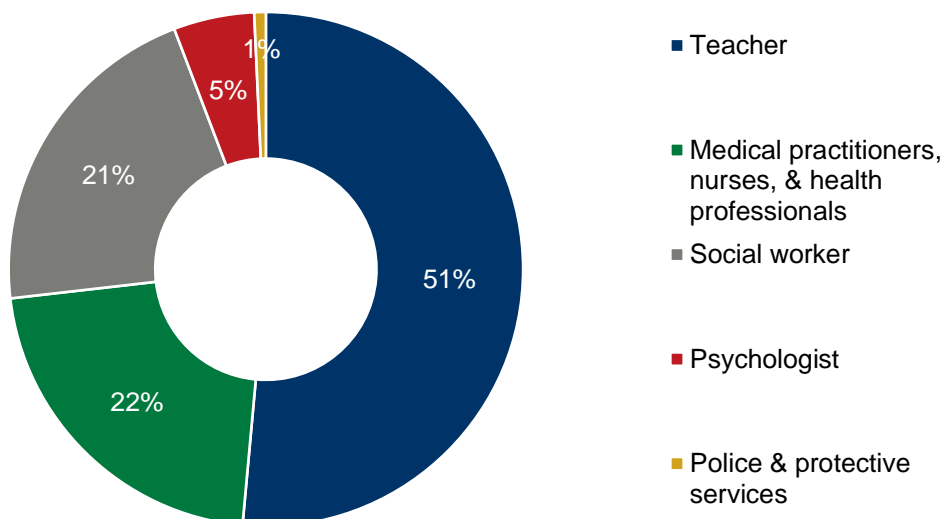
3.1.5 Graduates in key worker roles

Some of the roles University of Sussex graduates take on after graduating are important for their ‘social significance’. This study draws upon the UK Government’s definition of key workers to assess how many graduates go into ‘socially significant’ occupations, including²⁸:

- Doctors and other medical professionals
- Nurses and midwives
- Physiotherapists
- Psychologists
- Social workers
- Speech and language therapists
- Teachers

Analysis of the University’s Graduate Outcomes survey return indicates that 40 percent of 2018/19 graduates working in Greater Brighton, East Sussex and West Sussex are employed in one of these ‘socially significant’ roles. Teachers made up the largest share of these, accounting for 51 percent of the total (Fig. 29). A further 22 percent were working as medical practitioners, nurses and health professionals, and 21 percent as social workers. The rest reported working in Greater Brighton, East Sussex and West Sussex as psychologists, and in the police force & protective services.

Fig. 29. Composition of ‘socially significant’ roles by University of Sussex graduates in Greater Brighton, East Sussex and West Sussex, 2018/19



Source: DLHE

These findings are not only true in the short term; the University’s records indicate that some 28 percent of alumni working in Greater Brighton do so in education, public services, and health and social care.

²⁸ As applied under the former Key Worker Living scheme.

3.2 ENTREPRENEURIAL IMPACTS

In addition to the University's teaching output (i.e. graduates) fuelling local business activity and growth, the University has other impacts on business activity. This happens through multiple channels. These include the commercialisation of research and intellectual property, University support for entrepreneurship through in-house teams, the business services offered by its wholly-owned incubation centre, and various forms of business support and collaboration. Another important channel to consider is spin-offs and new businesses being formed by students, graduates and staff, and the role the University plays in local economic governance infrastructure to drive business growth.

3.2.1 A greater focus on entrepreneurial impacts and knowledge exchange

The University of Sussex is building upon its teaching and research excellence. In 2018, it published "Sussex 2025", a seven-year plan which included a greater focus on issues such as knowledge exchange, entrepreneurship, civic leadership and economic contribution. The Sussex 2025 framework committed the University to:

- Embedding business engagement, innovation and enterprise activities, addressing the relevant strands of the Government's Industrial Strategy and its successors.
- Listening and acting in the local and regional interest, working with public bodies, charities and civic society to find solutions to economic and social challenges.
- A commitment to local engagement.

Sussex 2025 also set the goal of growing income from Knowledge Exchange (commercially-funded research collaboration, business support, professional training and entrepreneurship) as reported to the Higher Education Business & Community Interaction Survey, by 25 percent by 2025 through improved business and public sector engagement. There is now dedicated professional support, academic leadership and in-house resources to support business and public sector R&D collaboration as well as entrepreneurship.

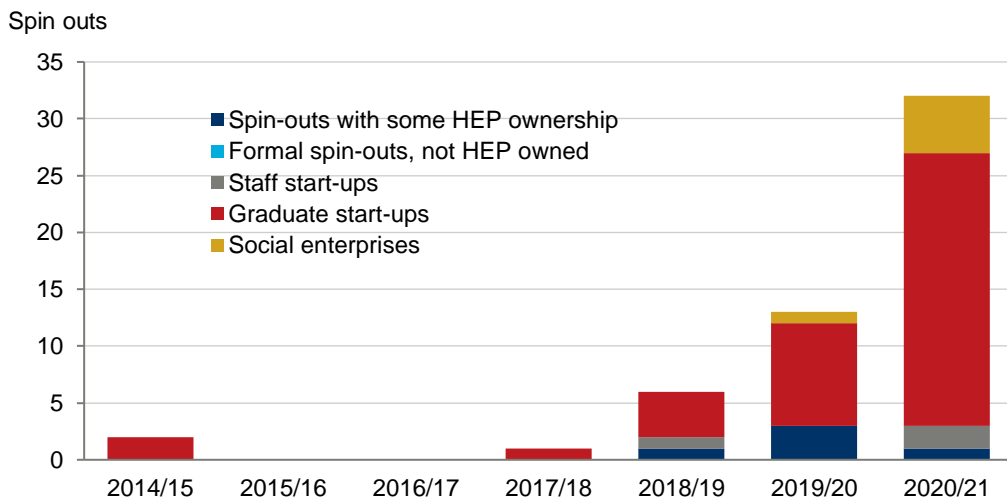
3.2.2 Knowledge exchange income, spin outs and business support

The Sussex 2025 drive towards entrepreneurship and business collaboration is having a positive result. Knowledge Exchange income has risen from the baseline £22m annual average in the five years before 2018-19 to an average of £25.2m in the three years since. There have been five new academic-led spin outs in the last three years compared to only five in the previous two decades. In addition, there have been 37 graduate start-ups in the three years from 2018/19 to 2020/21, compared to only three in the preceding four years (Fig. 30), although some of the difference in graduate start-up figures will be due to a previous lack of reporting.

£6.3 million in commercial contract values from businesses, 2020-21

In 2020-2021, the University worked with a total of 440 businesses to help address their R&D challenges and to provide companies with specialist services – with total commercial contract values from businesses amounting to approximately £6.3 million.³ In addition, Sussex granted 79 licences to companies to exploit the University's Intellectual Property for commercial use in 2020-21, ranging from medical software to quantum computing and graphene applications.

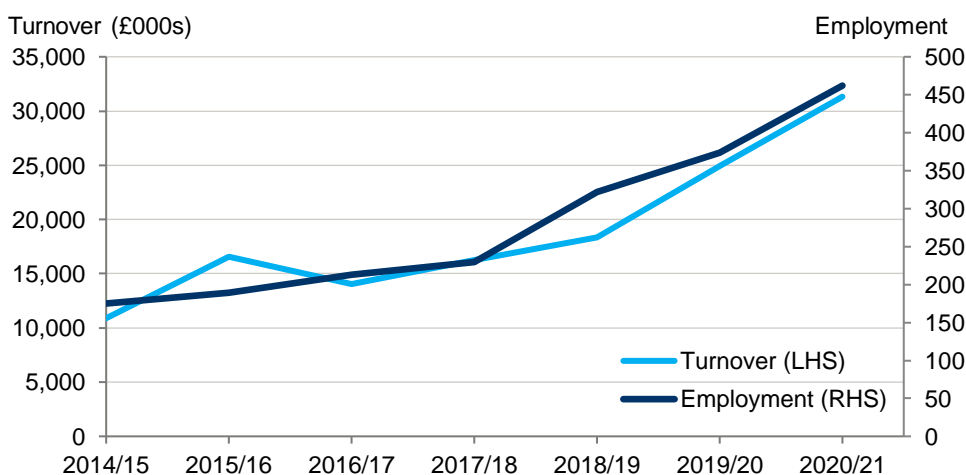
Fig. 30. University of Sussex spin outs, 2014/15 to 2020/21



Source: Higher Education Business and Community Interaction Survey

As expected, employment in all active spin-out businesses has grown significantly, doubling from the 230 estimated in 2017/18 to 462 in 2020/21. Similarly, turnover in active businesses is up 92.6 percent over the same period to an estimated £31.3 million in 2020/21 (Fig. 31).

Fig. 31. University of Sussex spin-out employment and turnover, 2014/15 to 2020/21



Source: Higher Education Business and Community Interaction Survey

The University actively encourages the commercialisation of research and helps with the commercial exploitation of the intellectual property. Patents are a formal channel of dissemination of knowledge, processes and products, as they encourage innovation and the publication of any invention. The University was granted four (five) new patents in 2020/21 (2018/19), bringing its total

number to 129 (87). This intellectual property earned £51,000 (£36,000) in income for the University during 2020/21 (2018/19).²⁹

The results from the 2021 Knowledge Exchange Framework published by Research England shows that the University performs better in several areas when compared to its peers in Cluster X (the name given to large, highly research intensive and broad disciplined universities undertaking a significant amount of excellent research).³⁰ It ranks in the top 30 percent of Cluster X universities for research-related income from the public and third sector and in the top 40 percent for IP & commercialisation, and also research partnerships with non-academic organisations (Fig. 32). Looking across all of the KEF clusters, Sussex spin outs rank in the top 10 percent of all university spin outs for investment received and for contract research income from the public and third sector.

Fig. 32. Knowledge Exchange Framework, 2021

Perspective	Metric	Cluster X rank
Working with the public and third sector	HE-BCI consultancy and facilities income with the public and third sector normalised by HEI income	Top 30%
	HE-BCI contract research income with the public and third sector normalised by HEI income	Top 30%
IP and commercialisation	Average external investment per formal spinout	Top 40%
	Estimated current turnover of all active firms per active spinout	Top 40%
	Licensing and other IP income as a proportion of research income	Top 40%
Research partnerships	Co-authorship with non-academic partners as a proportion of total outputs	Top 40%
	Contribution to collaborative research (cash) as a proportion of public funding	Top 40%
Working with business	HE-BCI consultancy and facilities income with SME business normalised by HEI income	Top 50%
	HE-BCI consultancy and facilities income with non-SME business normalised by HEI income	Top 50%
	HE-BCI contract research income with SME business normalised by HEI income	Top 50%
	HE-BCI contract research income with non-SME business normalised by HEI income	Top 50%
	Innovate UK income as a proportion of research income	Top 50%
Local growth and regeneration	Regeneration and development income from all sources normalised by HEI income	Top 50%
Skills, enterprise and entrepreneurship	HE-BCI CPD/CE learner days delivered normalised by HEI income	Bottom 50%
	HE-BCI CPD/CE income normalised by HEI income	Bottom 50%
	HE-BCI graduate start-ups by student FTE	Bottom 50%
Local growth and regeneration	Self-assessment based metric - optional in year 1	Bottom 50%

Source: Knowledge Exchange Framework

The University is also working with local bodies to promote and drive economic growth more generally. Indeed, the KEF results over two years show increasing local growth income for the University of Sussex. This income has enabled the University of Sussex to provide support to local businesses through EU and locally funded projects.

For example, together with the University of Brighton, the University of Sussex offers innovation programmes for companies in West Sussex. Local small and medium sized enterprises can now benefit from fully funded, research-led advice and innovation support.³¹ Known as 'RISE', this programme aims to share the wealth of knowledge and expertise in both the universities to support the local business community in meeting economic challenges and adapting to shifting market conditions in West Sussex. This innovation programme is a completely free-of-charge service for eligible businesses

²⁹ The University of Sussex, Research income performance report for financial years 2018/19 and 2020/21.

³⁰ The Knowledge Exchange Framework results can be found at: <https://kef.ac.uk/dashboard>

³¹ <https://rise-innovation.uk/about-us/>

due to funding from the European Regional Development Fund (ERDF), with support from local authorities across West Sussex.

THE SUSSEX INNOVATION CENTRE / SUSSEX INNOVATION

Local high-growth potential businesses also benefit from the facilities at the Sussex Innovation Centre, which is managed by Sussex Innovation Centre Management Ltd (Sussex Innovation), a wholly owned subsidiary of the University. Located on the University campus in Falmer and in Croydon, Sussex Innovation helps individual entrepreneurs, local start-ups and established businesses, academics and students to acquire the skills and resources to evaluate ideas, assess the market, gain customer insight and understand scalability.

As of 2020/21 (2018/19), there were 82 (73) firms based at the Innovation Centre, all of which have been selected for having a new product, notable market potential and entrepreneurial ambition. Of these, 57 (54) are based in the Centre in Falmer, employing approximately 250 (250) staff on site. Another 25 (19) are tenants in the Croydon offices, employing approximately 155 (140) people on site. Collectively, the firms are estimated to have an annual turnover of in the region of £30-35 (£30-35) million.

During 2020/21 (2018/19), a further 107 (144) firms accessed Sussex Innovation's facilities as virtual tenants or network members. Of these, 74 (92) are members in Falmer, with the remainder members in Croydon. Local firms who are not members are also able to take advantage of Sussex Innovation's expertise.

Sussex Innovation's support teams provided approximately 12,500 (12,100) hours of support during 2020/21 (2018/19). The most popular service is the Catalyst Intern Team, which provided approximately 8,500 (8,000) hours of support to 66 (65) firms in Falmer and 27 (25) firms in Croydon (Fig. 33). Comprised of University of Sussex graduates, the team delivers a range of business projects under the supervision of the senior management team. This service not only helps fuel the growth of innovative businesses based at the Centre, but also provides unique work experience for the University's students and graduates. The Accounts Team was the other popular service, providing 2,500 (2,400) hours of help on book-keeping and payroll, mostly in Falmer.

Fig. 33. Number of firms accessing Sussex Innovation’s advice service services and hours of support given by type, 2020/21

Service	2020/21				
	Number of businesses accessing support		Average annual support hours		
	Falmer	Croydon	Falmer	Croydon	Total
Accountancy	38	11	2,085	380	2,465
Business Support	32	10	405	180	585
Catalyst Interns	66	27	4,750	3,700	8,450
Marketing/Sales	28	8	320	70	390
Market Insight	25	13	310	98	408
PR/Comms	16	5	185	45	230

Source: The University of Sussex. Note: Figures may not add due to rounding

Fig. 34. Number of firms accessing Sussex Innovation’s advice service services and hours of support given by type, 2018/19

Service	2018/19				
	Number of businesses accessing support		Average annual support hours		
	Falmer	Croydon	Falmer	Croydon	Total
Accountancy	40	9	2,149	300	2,449
Business Support	36	10	432	170	602
Catalyst Interns	65	25	4,700	3,337	8,037
Marketing/Sales	30	8	300	70	370
Market Insight	25	12	310	85	395
PR/Comms	15	5	180	45	225

Source: The University of Sussex. Note: Figures may not add due to rounding

Sussex Innovation has a strong track record in assisting start-ups, scale-ups and corporate innovation projects. It assists in gaining access to external finance firms which are needed to grow – for instance, in securing grant funding, investment and the protection of intellectual property. One Innovation Centre-based company, Enterprise Therapeutics, recently raised £29 million in investment funding. Approximately 30 (30) percent of tenant companies hold some form of patented intellectual property or some form of intellectual property protection.

Since opening in 1996, Sussex Innovation has supported over 600 businesses. The companies that work out of the Innovation Centre are typically in high productivity sectors such as engineering,

biomedical research and app development.³² Member firms operating in the Innovation Centre have been successful by a number of metrics including:

- 79.2 percent were still trading five years after start up.
- 16.3 percent received significant investment (at least £10k), totalling £160.8m.
- 10.1 percent received significant grant funding, totalling £50.8m.
- 13.2 percent were confirmed as recording annual turnover of at least £1m.
- There have been 16 mergers or acquisitions and two IPOs.

³² <https://www.sussexinnovation.co.uk/about-us/>

4. THE UNIVERSITY OF SUSSEX'S R&D IMPACTS

In addition to the economic footprint of the University of Sussex, the R&D spending undertaken by the University is also important as it boosts the long-term economic potential of the UK economy. The growth in the productive potential in the economy comes not only from the new products or processes developed from the University's R&D spending but also through the stimulation of R&D activity by others in the economy, and through the dissemination of skills and knowledge across the wider economy.

In this chapter we consider the scale of the University's R&D activity, quantify its productivity benefits and consider its R&D capability in the fields of Bio-innovation and Quantum Computing, two specific fields offering substantial future economic rewards.

4.1 ACADEMIC EXPERTISE AND R&D ACTIVITY

The University of Sussex is globally recognised for its research activity, with 89 percent of its research ranked as world-leading or internationally excellent by the Research Excellence Framework (2021).³³ Research stimulates innovation, leading to new products, processes and technologies that improve efficiency and productivity. Innovation in socially important fields can have wider benefits, such as improving healthcare and public policy. Through its work with local businesses and other organisations, the University can pass on these benefits locally.

4.1.1 Research inputs

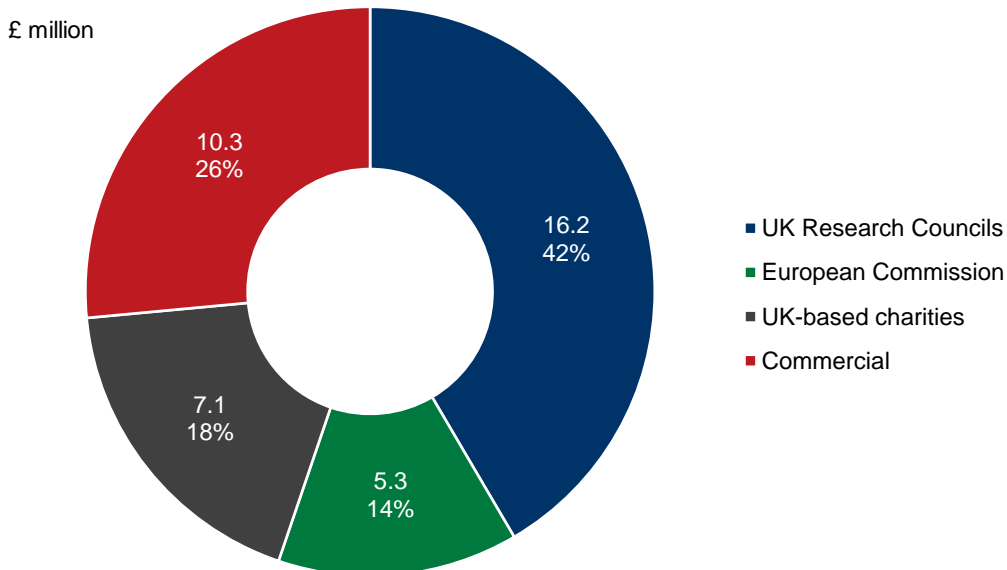
The University of Sussex received £38.9 (£38.0) million of research funding in 2020/21 (2018/19).³⁴ This funding comes from a wide range of sources (Fig. 35), with the largest share, 42 (43) percent, coming from UK Research Councils. UK charities accounted for 18 (22) percent of the total, with the European Commission contributing 14 (17) percent of funding. Commercial R&D for businesses and public sector accounted for the remaining 26 (18) percent.

³³ Research Excellence Framework (REF) 2021

<https://results2021.ref.ac.uk/profiles/institutions/10007806>

³⁴ Research funding data is taken from the University of Sussex's consolidated accounts.

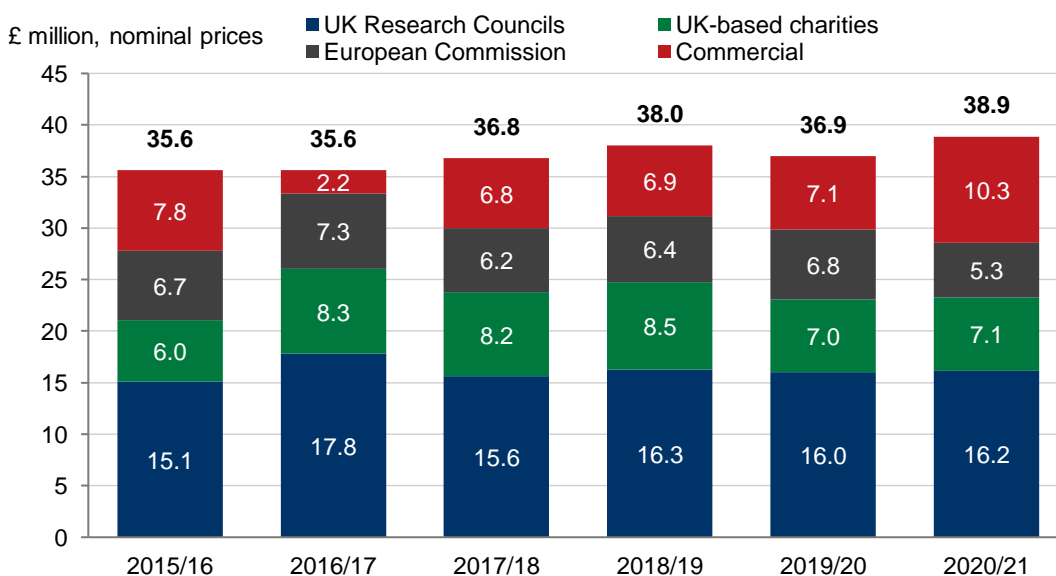
Fig. 35. University of Sussex’s research grants and contracts, 2020/21



Source: University of Sussex

From 2015/16, the University’s research funding has increased by nine (seven) percent in nominal terms to 2020/21 (2018/19) (Fig. 36). Though taking account of inflation, funding actually fell by four (five) percent between 2015/16 and 2020/21 (2018/19). The University’s income from commercial sources has grown to £10.3m (£6.9m) in 2020/21 (2018/19). The growth from commercial sources has cushioned the impact of the reduction in funds received from the European Commission in the same period. Given the uncertainty surrounding the future of the European Commission’s funding, the relatively static level of funding from UK Research Councils, and the relatively modest growth in funding from UK-based charities, attracting more funds from commercial sources will be vital to the University’s research activities going forward.

Fig. 36. University of Sussex research funding by source, 2015/16 to 2020/21



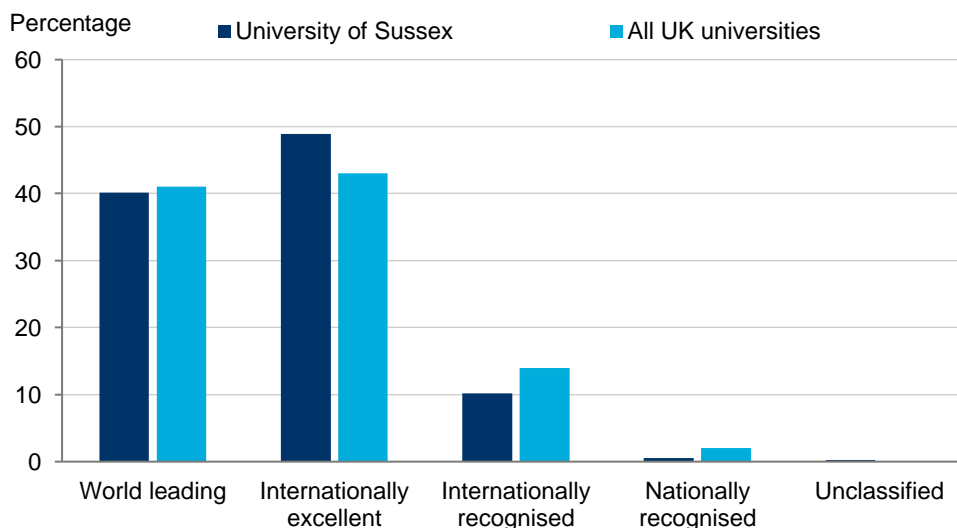
Source: University of Sussex

4.1.2 Research outputs

Looking back over the period 2010/11 to 2020/21, the University of Sussex’s students and staff have produced more than 31,681 research outputs. Journal articles account for approximately two-thirds of these research outputs.

The most recent assessment of research quality was undertaken by the Research Excellence Framework (REF) in 2021. 99 percent of the University of Sussex’s research submitted to REF2021 was assessed as internationally recognised, with 89 percent rated as world-leading or internationally excellent (Fig. 37). This demonstrates the global importance of the University’s research and its impact, exceeding the sector average of 84 percent of research submitted to REF2021 being rated as world-leading or internationally excellent. Furthermore, it is one of only nine universities in the UK to hold a QS world number one ranking. The University of Sussex was awarded the QS world number one ranking in Development Studies.

Fig. 37. The University of Sussex’s REF (2021) research outputs ratings versus all UK universities



Source: REF2021

4.1.3 Research and related enterprise income

In recent years, there has been an overall increase in research & enterprise income. In 2020/21 (2018/19), the University undertook 341 (303) pieces of contract research on behalf of businesses and other organisations (excluding publicly funded research). This research activity earned the University some £13.4 (£12.7) million in income. In addition, the University earned £3 million (£3.8 million) providing consultancy services for 106 (85) contracts during 2020/21 (2018/19), and a further £4.2 million (£4 million) from businesses’ use of facilities, equipment and other services.³⁵

The University also directly collaborates with businesses to guide its research. In 2020/21 (2018/19), it was involved in 41 (18) industrial collaborations. The University’s Postgraduate Certificate in E-Learning Design was developed in collaboration with the Brighton e-Learning Alliance Group of

³⁵ HESA Higher Education – Business and Community Interaction Survey (2020-21 and 2018-19).

Companies and the University of Brighton, and a Postgraduate Certificate in Web Development has been designed with the input of the local digital media sector.

4.2 R&D SPILLOVER EFFECTS

The gains from R&D spending are not limited to the sectors or products to which R&D spending is allocated. A large number of sectors benefit, both in the short term and the long term. These effects are called spillover effects. Spillover effects arise from the University's research via several channels including sharing know-how with suppliers, research councils and funders, customers benefiting from innovations, innovation information disseminated through publications, staff turnover and graduates/researchers leaving.³⁶

Over the long term, these benefits combine to create new economic conditions in the UK. Oxford Economics developed an econometric model to investigate how R&D spending is linked to productivity, controlling for other factors such as the levels of investment and educational attainment in the economy. Our modelling also allows us to capture the spillover effects through detailed data on the interactions between various sectors in the UK economy.

Based on our modelling, we find that the R&D spending by the University – of £38.9 million in 2020/21 and of £40.1 million in 2018/19 – is associated with increased productivity equivalent to £15.4 million and £15.9 million respectively in 2030 (Fig. 38).³⁷ In other words, the combined GDP boost in 2030 associated with R&D expenditures in the two years is £31.3 million. We expect almost all of the productivity gains to be realised in 2030. Put differently, each £1 of spending in the university's R&D programme generates productivity benefits of approximately 40p in 2030.

In this context, several other studies have estimated how publicly funded R&D investments have contributed to productivity, and have found significant social returns of 20 percent for UK public R&D investments.³⁸ In comparison, **our estimates of 40 percent return for the University's R&D programme are twice as high as those for UK public R&D investments more generally.**

Of these benefits, almost three-quarters (£22.8 million) accrue directly in the sectors where the R&D spending is targeted, whereas the remaining 23 percent of benefits (£8.5 million) are generated through spillovers of knowledge, technology and skills to the rest of the economy.

³⁶ Please see 7. Appendix A: Method for a more detailed discussion on our R&D impact methodology.

³⁷ Please note – all monetary values in section 4.2 R&D spillover effects are in constant 2021 prices. Constant prices are used in this section to allow a comparison of impacts across time.

³⁸ Report for the Department for Business, Innovation and Skills (BIS), "Rates of return to investment in science and innovation", 2014.

Fig. 38. The direct, spillover and total impacts of R&D expenditure in £ millions (2021 prices)

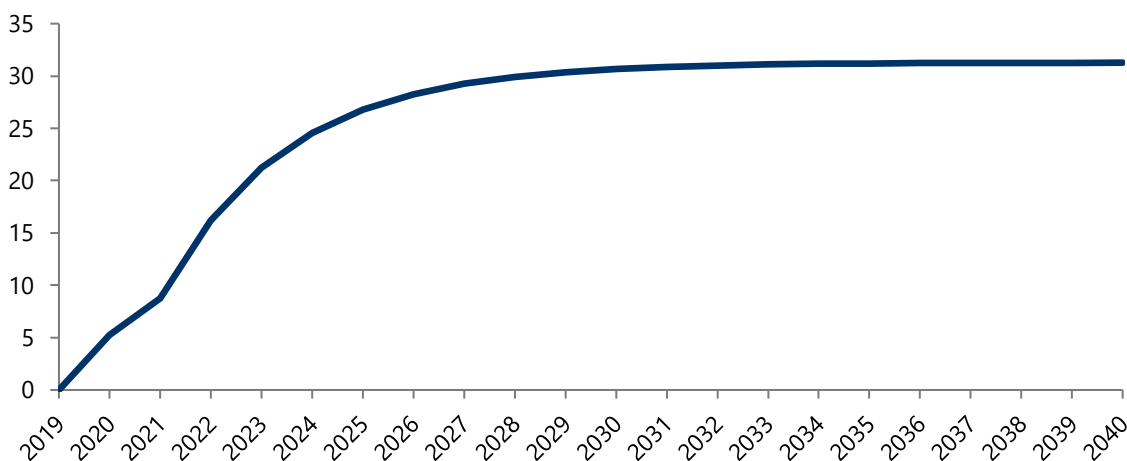
	R&D expenditure	Productivity		
		Direct impact	Spillover impact	Total impact
2020/21	38.9	11.2	4.2	15.4
2018/19	40.1	11.6	4.3	15.9
Total	79.0	22.8	8.5	31.3

4.3 TIME PROFILE OF R&D EXPENDITURE BENEFITS

The University’s R&D spending generates long-term benefits for society at large over a long-time horizon, as shown below. We find that the University’s R&D spending in both 2018/19 and 2020/21 generated a boost to national GDP of £31.3 million by 2030 (Fig. 39). As shown below, the productivity gains are most substantial in the first year and increase over time, albeit at a diminished rate.

Fig. 39. Time profile of the impact on productivity R&D investment

GDP contribution due to R&D-enabled productivity improvements, (£ millions, 2022 prices)



Source: Oxford Economics

4.4 BIO-INNOVATION R&D ACTIVITY

Bio-innovation encompasses different sectors including the biopharma core sector, the biopharma service & supply chain sector, the med tech core sector, and the med tech service & supply chain sector. In the UK, bio-innovation is a growth sector employing 268,000 people in 6,330 businesses.³⁹ The South East enjoys the largest concentration of jobs in the sector (64,800), notably more than the next largest areas, the East of England (39,200) and London (28,700).⁴⁰

³⁹ <https://onucleus.com/sites/default/files/BaHTSS%202020%20report-compressed.pdf>

⁴⁰ <https://onucleus.com/sites/default/files/BaHTSS%202020%20report-compressed.pdf> South East, East of England and London NUTS 1 regions.

There is evidence to suggest that a bio-innovation cluster is emerging within Greater Brighton, East Sussex and West Sussex.⁴¹ It is also a sector that has been identified in recent Government papers and policy documents. This matters because studies, including Runiewicz-Wardyn (2020), Kolympiris (2010) and Cooke & Huggins (2004), have identified strong prevalence of clustering occurring in life sciences and related fields.⁴² These clustering benefits reflect the agglomeration effects of proximity to other activity in life sciences, including opportunities for networking, information spillovers and knowledge transfers. Therefore, there is considerable opportunities for the local economy if the University and the private sector is successful in establishing a critical mass of activity in bioscience.

Fig. 40. Government support for bio-innovation

Level of Government	Paper	Reference to Bio-Innovation
Greater Brighton	Greater Brighton City Deal	The city deal enabled c.£165 million in investment for growth centres across the city region. The University's Bio-Innovation Facility at Falmer was previously identified as one of these growth centres. The facility was to bolster the University's activity in this area and boost the fixed capital stock available for the sector in the area by providing laboratory space for businesses.
West Sussex County Council	Economic Growth Plan 2018-2023	The County Council has been involved in Innovation South which aims to give the South a competitive advantage in knowledge intensive employment sectors including biosciences.

Source: West Sussex County Council, Greater Brighton, Oxford Economics

The University of Sussex has a strong presence in biomedicine and biochemistry. The School of Life Sciences undertakes research in disease-causing genes and proteins, as well as approaches to maintaining human and animal health. Their work ranges from cell-based genome and proteome wide analyses to experiments at single molecule resolution, using cell biology, structural biology and bioinformatics. In doing so, there is a strong focus on human health and food security, but deliberate encouragement to complement this with the investigation of basic mechanisms within other organisms. The REF for 2021 rated 92 percent of the research in biological sciences as internationally excellent or higher, with 34 percent rated as world leading.

The University focuses on four main areas of research:

- Gene expression
- Biotechnology & informatics

⁴¹ https://www.coast2capital.org.uk/storage/downloads/sussex_bio-innovation_centre_-_business_case-1540999177.pdf

⁴² Runiewicz-Wardyn, (2020); Social capital in the university-based innovation ecosystems in the leading life sciences clusters, Kolympiris, (2010); Three essays on location aspects in biotechnology entrepreneurship, A Tale of Two Clusters: High Technology Industries in Cambridge Cooke & Huggins (2004).

- Cancer & neurodegeneration
- Infectious diseases

In 2018/19, a total of 471 students graduated from the University's chemistry and life sciences courses. This rose to 528 in 2020/21.

4.4.1 Bio-innovation spin outs and partnerships

The School of Life Sciences has had some notable success in the past with spin outs and business partnerships. For example, **Reviral** is a biopharmaceutical company which was spun into the University and collaborated with the Sussex Drug Discovery Centre (SDDC) on research into the treatment of respiratory syncytial virus (RSV). Approximately 64 million people are infected with RSV per year, resulting in an estimated 160,000 deaths per year worldwide.⁴³ Together, the University of Sussex and Reviral designed and synthesised a drug called sisunatovir (RV521), an orally administered inhibitor designed to block fusion of the RSV virus to the host cell. In 2022, Reviral was acquired by Pfizer for \$525m. Sussex's contribution to the development of sisunatovir amounted to a royalty share of £1.6m to the University in 2022.

In addition, **AlternOx Scientific** is a bio-pharma company which span out from Sussex in Feb 2020. AlternOx develops novel, proprietary inhibitors of the enzyme alternative oxidase, to treat a wide range of multi-drug and multi-compound resistant species of fungi that now threaten human health and food security worldwide. The company's growth plans include securing a further £1m in external investment subject to obtaining EIS assurance.

Another example is **Stingray Bio** which span out from the University in 2020 and is tasked with developing new therapies for breast cancer, and potentially other cancer types. It has identified a protein (known as LMTK3) which is persistent in advanced breast cancer and showed how it can be targeted by novel medicines. The company plans to expand its R&D to collaborate with business partners across the globe.

More recently, **Blue Gem Pharma** is in the process of spinning out from the University of Sussex. Their multipurpose Liqui-Pellet technology enhances the drug release rate of water-insoluble drugs, using green technology to improve the bioavailability in a cost-effective manner. Liqui-Pellet has already attracted interest from a wide range of pharmaceutical companies, with Pfizer investing seed funding, and 113 Botanicals investing into developing Liqui-Pellet-based drugs for use in hospitals.

The University also has a number of successful partnerships including one with **Sophion**, which was founded in 2000 with the purpose of providing faster and more accurate patch clamping results. Towards the end of 2021, they proposed to fund a Sussex Drug Discovery Researcher and provide industry leading QPatch technology worth £500,000, plus annual maintenance support. This technology can be utilised by scientists across the University.

43

<https://www.sussex.ac.uk/broadcast/read/57905#:~:text=There%20are%2064%20million%20people,m ost%20risk%20include%20premature%20babies.>

Another example of a successful partnership is the work the University is doing with **Nugerontix** to discover the target protein mediating the actions of specific chemical compounds on the heart. Insights into the therapeutic target could eventually lead to new medicines with utility in a wide spectrum of disease indications.⁴⁴

The University and **113 Botanicals** have been collaborating since June 2020 to mitigate the effects of Multiple Sclerosis, Parkinson's disease, sepsis and COVID-19 through cannabis-based medicinal products (CBPMs). Applications under exploration include sleep deprivation and pain relief associated with Parkinson's and MS; and the alleviation of damage to lung tissue caused by inflammation and sepsis resulting from COVID-19 infection.

The University of Sussex has also partnered with pharmaceutical company **TauRX** with the aim of developing more advanced compounds to treat Alzheimer's disease. Phase 3 clinical trials show promising results, which are three times more effective than current treatments. The partnership with TauRX represents £2.1m of funding for contract research for the University.

4.5 QUANTUM TECHNOLOGY R&D ACTIVITY

Quantum technology is another area that promises substantial rewards. In 2016, the Government Office for Science estimated that the quantum technologies sector could be around the same size as the consumer electronics sector in the long term, which was worth around £240 billion per year globally.⁴⁵ In addition, a recent report by Hatch for the University of Sussex noted that the UK market opportunity would be worth over an estimated £10 billion by 2030.⁴⁶ The economic potential of the sector means quantum technology has been included in a number of policy documents.

Fig. 41. Quantum technology targets

Level of Government	Reference	Target
Greater Brighton	https://greaterbrighton.com/	Develop a 'Quantum Tech Corridor' similar to California's 'Silicon Valley'.
Coast to Capital LEP	Build back stronger, smarter and greener document	Deliver a Quantum equity investment fund to support commercialisation of ideas from the Quantum Technology Lab in University of Sussex.
UK Government	UK Innovation Strategy document	Recognises the transformative potential of the quantum technology sector and targets the sector for growth.

Hatch also reported that \$23 billion of funding had been invested in quantum research internationally with the UK committing approximately \$1.3 billion, the fourth largest investment in this nascent

⁴⁴ Endothelial dysfunction is a ubiquitous symptom of vascular ageing linked to increased risk of stroke and dementia, and accelerating mortality in patients with chronic heart failure. There are no pharmaceutical medicines available that specifically treat or reverse endothelial dysfunction. However, clinical trials have shown high flavanol products that are rich in a group of natural molecules called procyanidins are able to reverse endothelial dysfunction. These benefits have been observed even in patients being treated with optimal medical therapy following current guidelines, which clearly demonstrates the potential of a medicine with the properties of procyanidins.

⁴⁵ The Quantum Age: technological opportunities. Government Office for Science, 2016.

⁴⁶ Quantum Commercialisation Prospects, University of Sussex, Hatch, 2022.

industry. Across the UK, the South East enjoys the most investment of any UK region (£203 million across 228 projects). Of this, the University of Sussex is currently working on around £35 million of live quantum technology projects which are supported by public sector grants, private sector investments and business collaboration. As a result, the University of Sussex ranks third in the UK for the most research groups exploring quantum-related topics. In undertaking this research, the University has collaborated with 41 universities in 16 countries across the globe. Domestically, the University is collaborating with the UK Quantum Technology Hubs, and internally they are harnessing the skills of a number of schools to provide a cross-disciplinary approach to unlocking the potential of the technology. Furthermore, around a third of live quantum technology projects are developed with an industrial partner. Therefore, the University is well positioned to lead the development of this disruptive technology and bring substantial economic benefits to the local economy.

Universal Quantum, a University of Sussex spin out, is working in close collaboration with the University's scientists to build the world's first million-qubit quantum computer. Universal Quantum has over 15 years of quantum computing experience and expertise, with the Prime Minister's Science and Technology Council requesting input from its scientists. Universal Quantum is headquartered in Greater Brighton and expects to grow its team to 100 people whilst it promotes a diversified and inclusive workforce as a member of the Tech Talent Charter. Universal Quantum has secured international financing from top VCs and UKRI, as well as Government and industry contracts to enhance further quantum computing research efforts.

5. THE UNIVERSITY OF SUSSEX'S SOCIAL IMPACTS

In addition to its economic contribution, the University also provides a number of social benefits to the local area. In this chapter, we investigate the wider role that the University plays through civic leadership, policy development and delivery, cultural impacts, working with the community, promotion of the local economy and sustainability.

5.1 AN ANCHOR INSTITUTION, INFLUENCING LOCAL POLICY AND GROWTH

Anchor institutions are organisations that have a significant impact on a local economy. This could be through employment and spending, civic leadership, local policy development and delivery, commercialisation of research, etc. Importantly, anchor institutions look to positively influence the place they are in, as their success is linked to the success of the place.

There are a variety of ways in which the University of Sussex acts as an anchor institution, including:

- Through the provision of employment and spending.
- Through the provision of highly-skilled young people to the local economy.
- The vital role the University plays in research, R&D and innovation.
- The collaboration and support it offers local businesses.
- Its input into local policy.
- The students/visitors it attracts.

In recent years, the University of Sussex has sharpened its focus on local engagement and maximising its contribution to the local economy with the launch of the Sussex 2025 framework. The University contributes to policy formation through its role on the Economic Board of Greater Brighton, as well as the Brighton City Management Board. It also contributes towards achieving policy objectives and driving growth.

5.2 WIDENING PARTICIPATION IN HIGHER EDUCATION, OPEN COURSES AND CONFERENCES

Higher education delivers benefits to both the individual and society. These are widely documented (see for example, BIS (2013)).⁴⁷ But despite this, people from less-advantaged backgrounds are significantly less likely to attend university than their more fortunate counterparts.⁴⁸ Moreover, those that do begin higher education are also less likely to graduate, having higher drop-out rates.⁴⁹

⁴⁷ BIS, The benefits of higher education participation for individuals and society: key findings and reports “the quantants, BIS Research Paper: 2013, 146.

⁴⁸ BIS, National strategy for access and student success in higher education, 2014.

⁴⁹ Crawford, C., Socio-economic differences in university outcomes in the UK: drop-out, degree completion and degree class, IFS Working Paper (W14/31), 4 November 2014.

To help tackle this issue, the University of Sussex runs an extensive programme of schemes and events to promote participation in higher education by students from low-income families or ethnic minority backgrounds, those who are carers or who have a disability, and other low-participation backgrounds.

During 2020/21 (2018/19) the University's widening participation team hosted 113 (1,049) events, attended by 1,713 (26,384) students and parents.⁵⁰ These events lasted a total of 4,700 hours and included long-term activity programmes at schools designed to increase awareness, attainment and aspirations. These programmes covered student life, finance, and choosing and applying to a university. Other events included masterclass workshops (on subject specific curriculum enhancement, personal statements and budgeting, for example), campus visits, summer schools and work in primary schools.

Most of the University's outreach work takes place in the local community. The Sussex Access programme gives Year 12 and above students living in Sussex and London the opportunity to experience subject specific university style learning, on campus. Pupils are introduced to academic staff and student ambassadors, who provide support in research and study skills, information, advice and guidance for university applicants.

The University of Sussex's financial support schemes are an important part of the University's widening participation commitment, removing some of the financial barriers to higher education. In 2020/21 (2018/19), the University provided £6.1 (£6.4) million in financial support through its bursary schemes. Available to students from low-income households, this scheme provides both fee reductions and cash bursaries to support students throughout their degree. Graduate outcomes for bursary recipients have been promising, with 87 percent of the scheme's graduates in work or further education 15 months after graduating from the 2018/19 academic year.

Support for disadvantaged students continues throughout their education with transition, retention and employability activities and guidance. The University provides these students with academic and skills development, including careers and leadership coaching, workshops and funded internship opportunities. Graduates who were bursary recipients also benefit from continued access to the Careers and Employability Centre for three years after graduation.

The Careers and Employability Centre collaborates with local and regional recruiters to help current students find placements and graduates find jobs. In 2020/21, the University provided approximately £950,000 through funding programmes which enabled local businesses that may not normally be able to afford to pay interns to take on students or recent graduates for placements, providing students and recent graduates with invaluable work experience. Any business can apply for the University's internship and work shadowing programme, which funds 10-week internships for current Sussex students. The Graduate Internship Programme similarly funds internships for recent Sussex graduates. Local small and medium sized enterprises can also take advantage of funding through the Sussex Santander internship scheme, which is open to current students or recent graduates.

The University of Sussex also offers open courses in modern languages. With classes held on a weekly basis, courses are offered at a range of levels to give members of the public an opportunity to study a

⁵⁰ Please note – reduced widening participation activity in 2020/21 was due to COVID-19 restrictions.

language within the context of its culture. There are at least seven languages available to learn – including French, Japanese, Russian and Spanish – from fully qualified tutors, many of whom are native speakers.

The University also runs English language courses, which include intensive English courses for adults planning to go university or work in the UK. Lasting for at least six months, these courses aim to improve not only speaking and writing skills, but also study skills, cross-cultural communication, effective use of Information Technology in language learning, and research and presentation skills. Bespoke English language courses are specially designed and delivered for institutions and companies.

For local sixth form teachers, the University runs free conferences in a range of subject areas, from Life Sciences to Philosophy. The aim of these conferences is to help develop teachers' careers, extend their networks, and learn about cutting-edge research in their subject. They will typically include lectures by leading academics, practical sessions in the subject matter, and advice and guidance on preparing students for university entry.

5.3 ENGAGING WITH THE COMMUNITY

The University of Sussex actively engages with the local community in a number of ways and has been one of the largest partner organisations for both the Brighton Festival and Brighton Pride. The University's partnership with these events, and the volunteering of both the University's students and staff at these events, has contributed to their longevity and success – both events have generated millions of pounds of business activity in the city.⁵¹

The Sussex Clinical Legal Education facility in the University's Law department offers a variety of pro-bono services to the local community. The facility affords law students at the University the opportunity to provide free legal advice on a diverse range of matters including family law, environmental law and performing arts law. Students can also provide assistance in County Courts and volunteer on projects assisting local charities, action groups and non-governmental organisations with community issues such as homelessness, employment rights and other legal challenges.

The University of Sussex's Students' Union also plays an important community engagement role, providing students with the opportunity to volunteer. In particular:

- Community Organiser volunteers are trained to go out into the local area and start conversations with people about local issues. This enables them to find out what issues are important to the community, provide information and support people to plan or run activities, events and campaigns. These student volunteers devote a considerable amount of time to the community – a minimum of two hours per fortnight.
- A further important voluntary programme delivered through the Students' Union is its Role Models Project. Students have the opportunity, through an elective module, to participate in peer-led mentoring. Run in partnership with the School of Education and

⁵¹ <https://democracy.brighton-hove.gov.uk/documents/s162686/Brighton%20Dome%20Brighton%20Festival%20Report%202020%20-%202021.pdf> and <https://www.theargus.co.uk/news/16951793.pride-brought-30-million-economy/>

Social Work, the project involves students creating and delivering workshops for young people at a local secondary school, aimed at engaging pupils aged 12 to 15 in personal, social and political issues.

- The Students' Union also actively promotes other local volunteering opportunities, including through the Community Works' Volunteer Centre and Brighton and Hove Community Base.

5.4 INFLUENCING SOCIETY AND CULTURE

Across Greater Brighton, East Sussex and West Sussex, there is an extremely strong creative industries sector which includes computer software, animation, music, broadcast media such as radio and television, and performing arts. Pre-pandemic figures for Greater Brighton alone report 16,000 employees across more than 6,000 companies, with more than a 22 percent increase in turnover from 2014-2019.

Software design is the largest creative industries sector in the region, with the highest turnover of £785m, the most employees (8,467) and the most businesses (3,087). The region's second largest creative sector is the performing arts, with a turnover of £329m from 1,123 companies employing 3,307 members of staff. The sector performs considerably higher than the national average, highlighting a regional strength in the breadth and quantity of arts organisations (J. Siepel "Creative Industries in Greater Brighton", Greater Brighton Economic Board, July 2019). Similarly, East Sussex is home to the seventh largest media and communications economy in the UK (Locate East Sussex).

The University's School of Media, Arts and Humanities works tirelessly with creative and cultural organisations throughout the region and the University has just signed a Memorandum of Understanding with Brighton's Royal Pavilion and Museums Trust, signalling a multi-faceted programme of co-creation and artistic development. Several schools have forged strong R&D as well as graduate placement partnerships in the digital creative sector, working closely with local umbrella organisations such as Wired Sussex. The University's long-standing artistic and creative collaborations across the region have helped to shape the nature of the regional economy and its strong cultural offer.

The University also attracts a significant number of international students, and students from other parts of the country, which make a positive contribution to society and culture. Together with the University's funding contribution to local festivals, it makes a profound impact on society.

In addition, the University of Sussex has some facilities that are available for use by the local community, as well as students and staff. The University's sports centre is open to the general public, to either join or use on a "play-and-pay" basis as non-members. The centre's range of facilities include:

- Two multi-purpose sports halls (for badminton, table tennis, basketball, football, etc).
- Fitness room, which also acts as an indoor group cycling room.
- Indoor cricket nets.
- Four glass-backed championship squash courts.
- Dance and martial arts studio.
- Therapy room.
- A sports injury clinic.

Furthermore, the University of Sussex partners with East Sussex County Council and Brighton & Hove City Council to fund and operate The Keep. This world-class centre for archives based in Falmer houses archives, documents and historical records. The University has contributed its internationally significant Special Collections, which hold over eighty internationally acclaimed archival, manuscript and rare book collections, mostly relating to 20th and 21st century literary, political and social history. Members of the local community are welcome to access The Keep, as well as use the University's campus library as visitors. The Keep provides lecture and public reading rooms for general use, and groups from local schools, colleges, volunteer groups and other societies are also welcome to visit and take advantage of tailored sessions or host workshops. The Keep also runs a number of programmes targeting the local community, including outreach programmes that aim to make the collections accessible to all learners.

During the COVID-19 pandemic, the University made accommodation available for NHS staff and armed forces staff, who were unable to return to their family homes – helping to prevent the spread of the virus and safeguarding the families of key workers.

5.5 PROMOTING GREATER BRIGHTON, EAST SUSSEX AND WEST SUSSEX INTERNATIONALLY

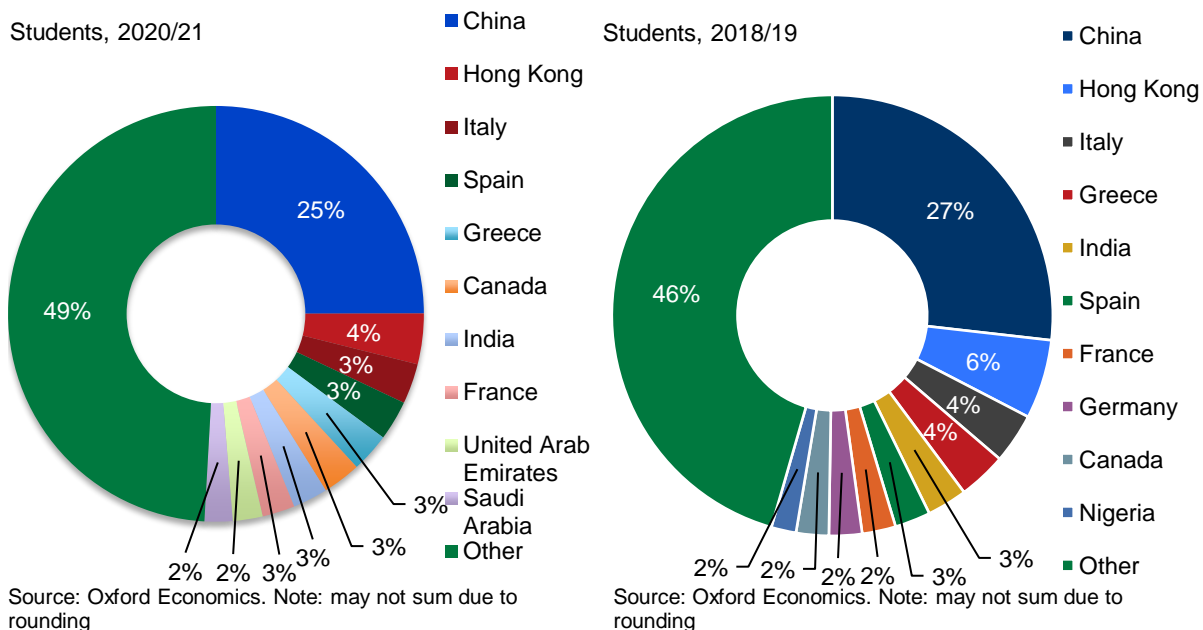
The University's influence extends beyond the local economies of Greater Brighton, East Sussex and West Sussex. Its global reach is most obvious in the thousands of international students that choose to attend the University. These students make an immediate contribution to the local economy through spending, but they also attract visitors while they are there, and encourage others to visit in the future through recommendations. In addition, the University secures international funding for research and has formal relationships with other Higher Education Institutions across the Globe.

5.5.1 International students

In 2020/21 (2018/19), there were more than 6,800 (6,600) international students and hundreds of staff from overseas registered at the University. Students, staff and alumni act as ambassadors for the Greater Brighton, East Sussex and West Sussex area, developing business links, attracting visitors and recommending the University and the wider area to friends and family.

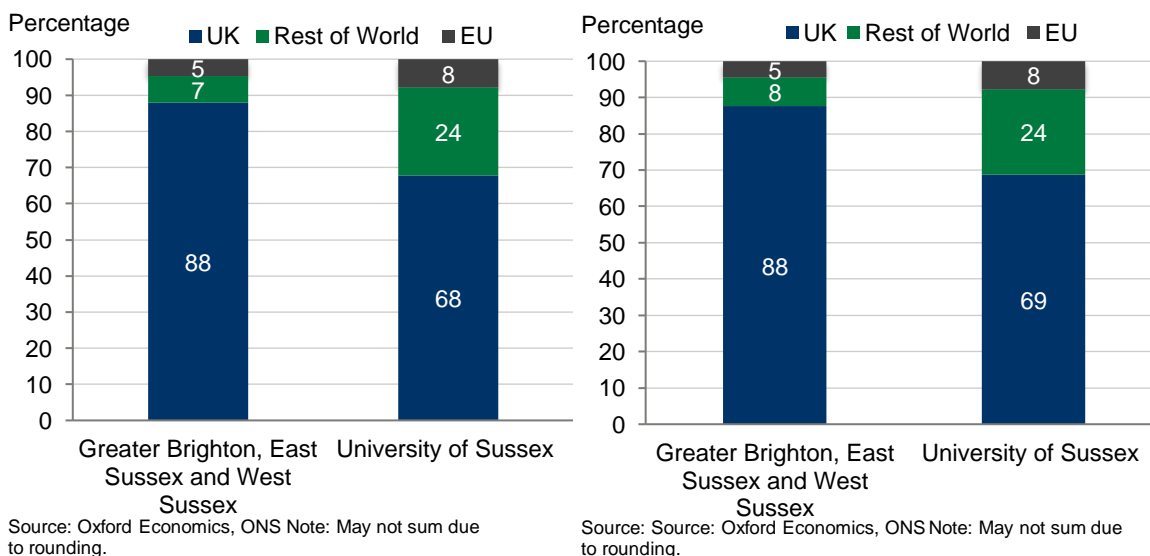
The University of Sussex attracts students from more than 160 countries around the world. The largest share of international students comes from China; making up a total of 25 (27) percent in 2020/21 (2018/19) (Fig. 42). Students from Hong Kong and Italy made up a further four (six) percent and three (four) percent of international students in 2020/21 (2018/19).

Fig. 42. University of Sussex international students' country of origin, 2020/21 and 2018/19



By attracting international students, the University contributes to the vibrancy and diversity of the area's culture. The University has a large share of students born outside of the UK (32 percent during both 2018/19 and 2020/21), when compared to the population of Greater Brighton, East Sussex and West Sussex (12 percent in 2018/19 and 13 percent in 2020/21).

Fig. 43. Population by country of birth 2020/21 and 2018/19

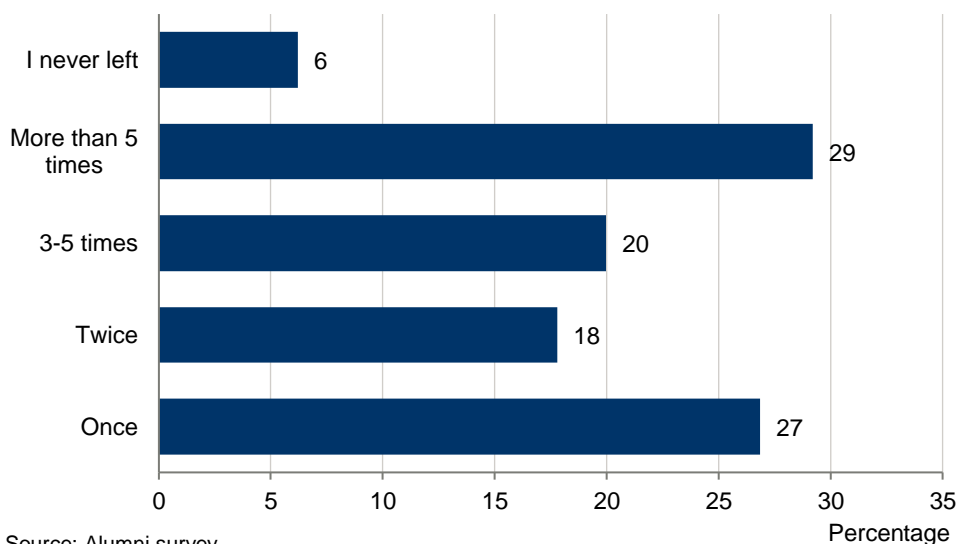


5.5.2 International alumni visits and recommendations

The University's international alumni continue to boost the Greater Brighton, East Sussex and West Sussex economy long after graduating by returning to visit and recommending the area as a tourist destination. A survey of 1,000 graduates and postgraduates living abroad found that 63 percent had

visited Greater Brighton, East Sussex and West Sussex since graduating.⁵² Of the international alumni that had visited, the largest share – 29 percent – had returned more than five times, with their expenditure boosting Greater Brighton, East Sussex and West Sussex accommodation, food and beverage services, passenger transport, and recreational and conference services industries (Fig. 44).

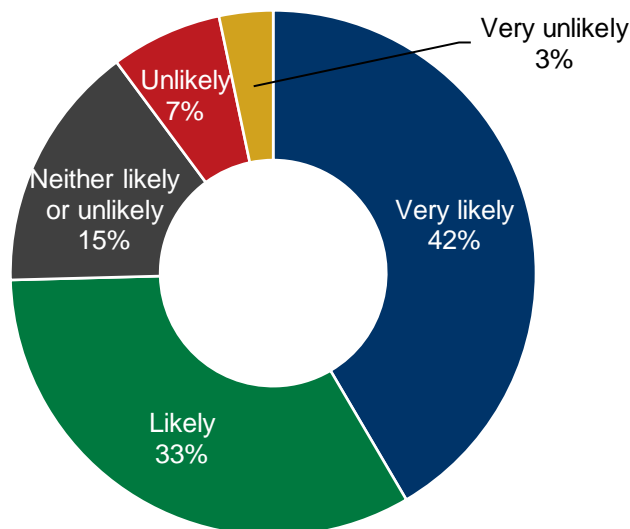
Fig. 44. Number of times international alumni have visited Greater Brighton, East Sussex and West Sussex since graduating



The majority of international alumni responding to the survey, some 75 percent, said that they were likely to return in the future, with 42 percent reporting they were very likely to visit in the future (Fig. 45).

⁵² The most recent survey was carried out in 2017 by the University together with Oxford Economics. Almost 1,000 graduates and postgraduates registered on the University’s databases as living abroad were surveyed.

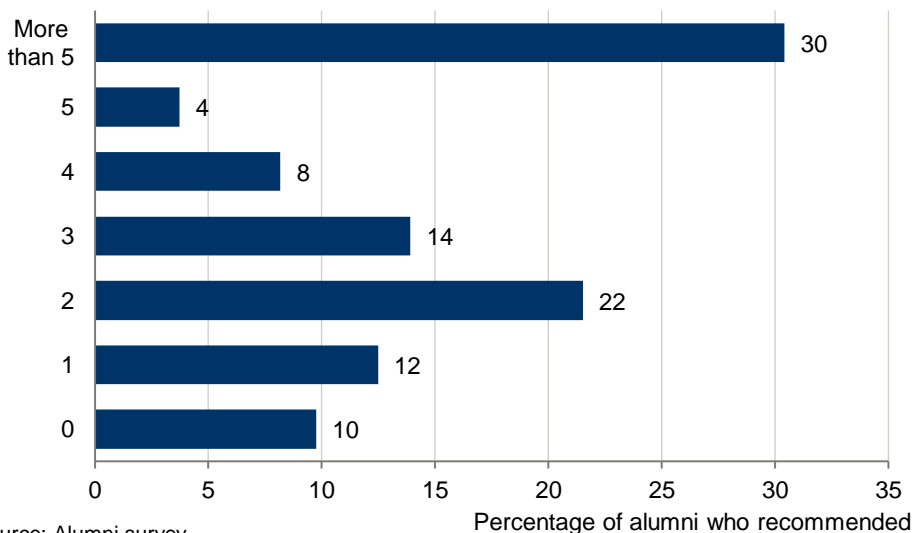
Fig. 45. How likely international alumni are to visit Greater Brighton, East Sussex and West Sussex



Source: Alumni survey

International alumni act as ambassadors for Greater Brighton, East Sussex and West Sussex by recommending it to both friends and family at home. Some 77 percent of international alumni respondents had recommended family or friends to visit Greater Brighton, East Sussex and West Sussex. Of these, 90 percent said that at least one person had visited on their recommendation, with 30 percent reporting that more than five people had done so (Fig. 46).

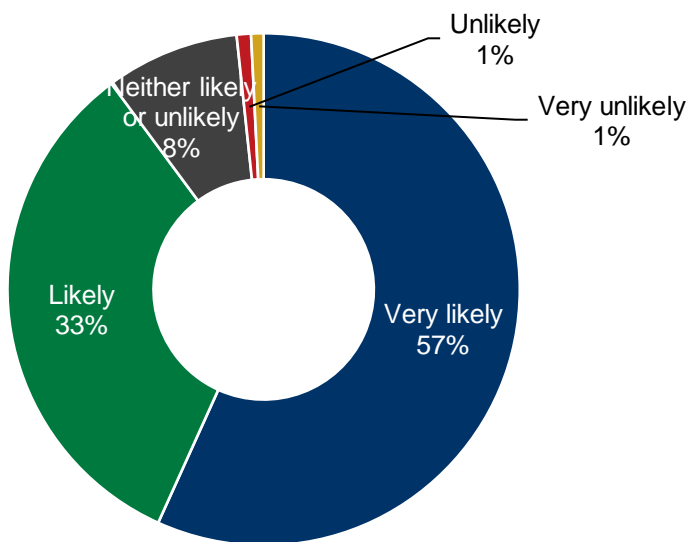
Fig. 46. Number of people who visited Greater Brighton, East Sussex and West Sussex following an international alumni's recommendation



Source: Alumni survey

Looking forward, 90 percent of international alumni said they would recommend visiting Greater Brighton, East Sussex and West Sussex to friends and family in the future (Fig. 47). Of these, the majority was very likely to do so.

Fig. 47. How likely international alumni are to recommend visiting Greater Brighton, East Sussex and West Sussex to others in the future



Source: Alumni survey

These international links are strengthened by the University's formal institutional partnerships with universities in China, the USA, Ghana, Hong Kong and Thailand, with options for students to spend time in one of these countries as part of the Global Excellence Summer Programme. In addition, they have international research partnerships funded by the University's International Partnership Development Fund, as well as visiting and exchange partnerships and an International Summer School.

6. CONCLUSIONS

CORE ECONOMIC IMPACTS

The University of Sussex is an important part of the economy of Greater Brighton. In 2020/21, the University made an estimated £428 million gross value added contribution to Greater Brighton's GDP; this was almost 1.5 percent of the total GDP of Greater Brighton. Some £207 million of this contribution was created by the University itself, with £75 million stimulated through supply chain and wage spending. The spending of students and visitors supported further contributions of £146 million and £1 million to GDP, respectively. The University supported 6,800 jobs in Greater Brighton, around one in every 80 jobs. The University itself sustained 2,830 of these jobs, while another 3,900 were supported off campus at Greater Brighton-based businesses. The majority of these, some 2,230 jobs, were stimulated by students' subsistence spending.

Across Greater Brighton, East Sussex and West Sussex, the University made a GVA contribution of £454 million and supported over 7,200 jobs. Its core economic impact on the UK economy is even larger, sustaining a £495 million gross value-added contribution to UK GDP, supporting more than 7,800 jobs across the country, and generating a £114 million in tax receipts.

WIDER IMPACTS

The University's graduates enhance the skilled talent pool available to Greater Brighton, East Sussex and West Sussex employers. In the 2020/21 (2018/19) academic year, 7,147 (7,120) individuals graduated from the University. Over a quarter of the University's 2018/19 graduates who were in-work were employed in Greater Brighton, East Sussex and West Sussex 15 months after graduation. Of these, 40 percent were employed in 'socially significant' roles, including as teachers, social workers and doctors.

The University boosts the UK's human capital stock. **The University of Sussex's investment in skills during 2020/21 increased the UK's stock of human capital by some £897 million.** This reflects the change in highest qualification level among first degree qualifiers during that year. Higher qualification levels benefit both workers and employers through increased productivity, improved competitiveness and technological innovation.

The "Sussex 2025" plan to boost entrepreneurialism has had a noticeable impact, with a rise in Knowledge Exchange income, a jump in the number of graduate start-ups since 2018/19, and a doubling of employment in active spin-out businesses since 2017/18. During 2018/19 to 2020/21, there were five new academic-led spin outs, compared to only five in the previous two decades. In addition, there have been 37 graduate start-ups in the three years from 2018/19 to 2020/21, compared to only three in the preceding four years.

The University is also supporting local businesses through newly appointed dedicated staff and programmes, as well as through the facilities and business services offered by Sussex Innovation. In 2020-2021, the University worked with a total of 440 businesses to help address their R&D challenges and to provide companies with specialist services – with total commercial contract values from businesses amounting to approximately £6.3 million. In addition, the Sussex Innovation

Centre helps firms with new products, notable market potential and entrepreneurial ambition. In 2020/21 (2018/19), the Centre offered more than 12,500 (12,100) hours of support to local SMEs.

R&D IMPACTS

The University is also globally recognised for its research activity, with 89 percent of the University's research ranked as world-leading or internationally excellent. We estimate R&D spending in both 2018/19 and 2020/21 generated a boost to national GDP of £31.3 million by 2030.⁵³

The University's research income from commercial sources has grown to £10.3m (£6.9m) in 2020/21 (2018/19). This has cushioned the impact of the reduction in funds received from the European Commission in the same period. Given the uncertainty surrounding the future of the European Commission's funding as well as the relatively static levels of funding from UK Research Councils & UK-based charities, attracting more funds from commercial sources will be vital to the University's research activities.

By developing new and improved products and processes, the University's research activities foster innovation. In 2020/21 (2018/19), it was granted four (five) new patents, taking its stock of patents to 129 (87). It collaborated with local firms by undertaking 341 (303) pieces of contract research worth £13.4 (£12.7) million and 106 (85) pieces of consultancy worth another £3.0 (£3.8) million in the same year.

The University of Sussex has a strong presence in biomedicine and biochemistry. The REF for 2021 rated 92 percent of the research in biological sciences as internationally excellent or higher, with 34 percent rated as world leading. This area has the strongest industry collaboration out of all disciplines at Sussex. Spin outs and industrial partnerships add to the bio-innovation cluster within Greater Brighton, East Sussex and West Sussex.

The University is also leading research in quantum technology with University projects in the field worth approximately £35 million and the University having the third most research groups exploring quantum technology. Around one third of live quantum technology projects are developed with an industrial partner. Therefore, the University is well positioned to lead the development of this disruptive technology. This technology could potentially bring economic benefits, including investment, to the local economy. In undertaking this research, the University has collaborated with 41 universities in 16 countries across the globe.

SOCIAL IMPACTS

The University of Sussex is an anchor institution for Greater Brighton, East Sussex and West Sussex. It provides a range of benefits from the provision of employment, spending and skills; leading on R&D and innovation; collaboration and support with local business; input into policy development and through the students and visitors it attracts.

In June 2020, The University of Sussex was awarded the title "University of Sanctuary" in recognition of its efforts to welcome and support forced migrants. This recognises the

⁵³ Please note - Constant 2021 prices are used to enable a comparison of R&D impacts across time.

University's actions and commitments to promote a culture of welcome, safety and inclusion across its campuses and its support to Brighton & Hove City Council's commitments to the City of Sanctuary Charter.

During the COVID-19 pandemic, the University played an important role through providing accommodation for NHS staff and armed forces staff, who were unable to return to their family homes – thus helping to prevent the spread of the virus and safeguarding the families of key workers. The University also offered facilities to the NHS, hosted a testing station on its campus, and two Sussex academics were members of sub-groups of SAGE. Through support from its Knowledge Exchange funding, the University's engineering staff and students designed, manufactured and donated face shields to the Royal Marines, enabling the Marines to support the mass vaccine rollout. Sussex mathematicians also designed a predictive modelling software toolkit to enable local hospitals and social care services to better manage their intensive care services. This has been further developed in partnership with the healthcare consortium and will be rolled out to a wider range of health and social care activities.

The University has a strong commitment to widening participation to students from disadvantaged and underrepresented backgrounds. Although impacted by the social restrictions resulting from COVID-19, the University's widening participation team ran outreach events, targeting those less likely to apply for higher education through workshops, presentations and summer schools. The University also continues to support disadvantaged students during and after their studies. The University has planned to provide £6.1 million in financial support to students during 2020/21.

The University's Equality, Diversity and Inclusion Strategy – Inclusive Sussex – is fundamental to the success of the University of Sussex. The strategy sets out how Sussex will take bold action to ensure the campus is one that is experienced as inclusive by all communities. This includes understanding and addressing power relations and the intersecting inequalities that many members of our community experience.

The University of Sussex actively engages with the local community. It has been one of the largest partner organisations for both the Brighton Festival and Brighton Pride (both events have generated millions of pounds of business activity in the city). In addition, the Sussex Clinical Legal Education facility in the University's Law department offers a variety of pro bono services to the local community. The University launched its Spirit of Sussex Award scheme for students in September 2020. This scheme offers a range of volunteering opportunities in the local community and by August 2021, over 700 students were participating in the award scheme.

The University also promotes the local economy to a global audience. It attracts students from more than 160 countries around the world. Students born outside of the UK accounted for 32 percent of students during both 2020/21 and 2018/19; whereas individuals born outside of the UK accounted for 12 (13) percent of Greater Brighton, East Sussex and West Sussex's population. Some 63 percent had returned to visit since graduating. They also serve as powerful ambassadors for the local area. Some 77 percent of international alumni report that they have recommended visiting Greater Brighton, East Sussex and West Sussex to friends and family back home, and 90 percent of those say that at least one person has visited on their recommendation. The University's global networks could potentially be harnessed to help attract inward investment to the region.



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