



RESEARCH INCOME FOR BUSINESS AND MANAGEMENT

Analysis of HESA data 2012/13 to 2017/18

April 2019

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Source of data:

The data used in this survey, unless otherwise stated, is from the Higher Education Statistics Agency, finance records 2012/13 to 2017/18, sourced via the Heidi Plus Online Analytics service. Copyright Higher Education Statistics Agency Limited. The analysis was undertaken by the Chartered Association of Business Schools in April 2019. The case studies are based on information supplied directly from the respective business schools.

Advice on full comparability with prior years:

From 1 January 2015 the financial reporting for universities changed in line with Financial Reporting Standards (FRS) 102. Due to these changes, absolute comparability with HESA finance records pre and post 2014/15 and 2015/16 may not be possible.

Disclaimers:

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INTRODUCTION

This annual report provides an analysis of research income in the field of Business and Management. This year's report looks at the six-year period from 2012/13 to 2017/18, using data from the Higher Education Statistics Agency (HESA).

The data shows a 12% increase in research income for Business and Management research over the six year period since 2012/13 but in real terms, taking inflation into account, this translates to a decrease of 1%.

Total research income for higher education institutions as a whole has increased by nearly a third from £4.8bn to £6.2bn. Research income for Business and Management as a proportion of research income for the whole HEI sector has fallen from 1.4% to 1.2%, a proportional decrease of 14%.

Business & Management records its highest ever level of research funding

The total research income of £72.5m achieved by Business and Management in 2017/18 is the highest recorded during the period for which data is available¹, and represents only the second year where the total reached the £70m level (the other year being 2006/07). This represents a year-on-year increase of 6% and is the second consecutive annual increase. On an annual basis the total increase in funding of £4m is accounted for by the research councils (+7%), UK central government (+8%), UK industry (+11%) and UK-based charities – open competitive process (24%).

The longer-term data reveals a more varied picture. Funding from the research councils increased by only 2% between 2012/13 and 2017/18 and funding from all UK sources increased by 1%. Adjusted for inflation, however, total UK funding for Business and Management research fell by 10%, with UK business schools receiving nearly £6m less in 2017/18 than six years previously. In contrast, across all subjects there was a 14% (inflation-adjusted) increase in research funding from UK sources.

The sector remains reliant on funding from non-UK government sources

While research funding for Business and Management from EU government bodies fell very marginally in the last year (-1%), it remains at historically high levels and has risen from 18% of total funding in 2012/13 to 22% in 2017/18. Funding from all EU sources has increased by 34% in the last six years.

Despite an annual increase of £1m in funding from UK central government bodies, Business and Management received more funding from EU government bodies than UK central government, which has been the case in four of the last six years. Research income from non-EU international sources has grown for five consecutive years and is now double the amount recorded in 2012/13, although the contributions of £5.2m in 2017/18 represent only 7% of total funding for Business and Management.

Funding from UK industry grew for the third year in a row and recorded its highest contribution since 2012/13. This source now accounts for 12% of all funding in Business and Management. Income from UK-based charities under a competitive process was 62% higher than six years ago and represents 6% of the total.

As EU sources continue to make substantial contributions towards funding research in UK business schools it is crucial that UK universities are able to participate in EU research programmes after Brexit. The UK's decision to leave the EU has already had an adverse impact on UK business schools, and our 2018 Annual Membership Survey found that most of the adverse effects have worsened since 2017². The proportion of business schools reporting a decline in research funding from EU sources increased from 6% in 2017 to 15% in 2018, and the proportion seeing a fall in available research partners increased from 5% to 13%. Nearly half of the business schools responding to the survey expected research funding from EU sources to decline over the next year.

¹ Source: HESA Finance Record [1994/95 to 2017/18]

² Chartered Association of Business Schools, Annual Membership Survey 2018, November 2018 <https://charteredabs.org/wp-content/uploads/2018/11/Chartered-ABS-Membership-Survey-2018.pdf>

Highlights contained in this report

1. Research income for Business and Management has grown for a second consecutive year, reversing the post 2011/12 downward trend. Increases in funding from several sources has contributed to a record high total of £72.5m in 2017/18, the first occasion since 2006/07 that total annual income has reached the £70m level.
2. The last year has seen healthy increases in funding from the UK central government and research councils, but contributions from both sources remain below the levels seen in the previous decade prior to government spending cuts. The sector remains reliant on other sources for research funding, including EU government bodies, industry (both UK and non-UK), and charities. Looking solely at funding from UK government sources, Business and Management saw a 9% (inflation-adjusted) decline relative to 2012/13, whereas the higher education sector as a whole received an increase of 15%.
3. STEM subjects received an average increase in research funding of 30% during the period of 2012/13 to 2017/18 compared to 12% for Business and Management. Taking inflation into account, the STEM subjects saw an increase of 16% over the same period, whereas Business and Management recorded a decline in real terms of 1%.
4. Business schools in London and the South-East continue to receive the largest share of research funding, but the total income received by both regions declined in the last year, and their combined share has dropped from 40% in 2016/17 to 35% in 2017/18. Based on the number of business schools per region, the highest levels of contributions were received by schools in the South-East, West Midlands and Northern Ireland.
5. In 2017/18 the institutions not affiliated with a mission group received a greater share of Business and Management research funding than Russell Group institutions, and the share belonging to the latter has declined from 49% in 2011/12 to 41% in 2017/18. For the combined six year period of 2012/13 to 2017/18, the Russell Group and non-affiliated institutions accounted for nearly 90% of total research income. The University Alliance business schools have continued to grow their research income but their overall share is modest.
6. The distribution of research income by institution continues to exhibit a tendency for concentration within a certain group of business schools. Over the last three years the ten highest earning business schools accounted for just under half of the total Business and Management funding, six of which are Russell Group institutions and the remainder non-affiliated.

SOURCES OF RESEARCH INCOME

In 2017/18, total research income for the subject of Business and Management was £72.5m, an increase of 6% compared to the £68.5m achieved in 2016/17. Compared to six years ago the total income is 12% higher but, if adjusting for inflation, there has been a decline of 1% in real terms.

The annual increase in total funding of £4m is accounted for by increases from a variety of sources: research councils (+£1.2m); UK central government: (+£1.1m); UK industry, commerce and public corporations: (+£800k); and UK-based charities: (+£900k).

By institution this growth is concentrated within a handful of institutions who significantly increased their Business and Management research funding in the last year, including the University of Lincoln and the University of Hull. Overall, 50% of the business schools recorded some increase in the last year, 40% saw a decline and 10% were unchanged.

Funding from the research councils increased for a second consecutive year, and the income of £18.5m is 7% higher than in 2016/17. This is largely accounted for by an increase in grants received from the Economic and Social Research Council. Total funding from the research councils remains slightly below the amount of £19.3m seen in 2011/12.

Research funding from the UK central government increased by 8% to £15.2m, the highest amount since 2011/12 when £18.8m was received. This is also 4% higher than six years ago and is a promising development. It should be noted, however, that funding from UK central government remains significantly below the levels seen prior to the spending cuts when Business & Management often received around £20m each year.

Funding from UK industry, commerce and public corporations grew for a third year in a row, a reversal of the decline seen during the three year period between 2012/13 and 2014/15. The income of £8.3m from this source is 11% higher than in 2016/17 but 6% less than in 2012/13. Income from UK-based charities (from both open competitive processes and other sources) increased by 15% in the last year and is 44% higher than in 2012/13.

EU sources continue to make a significant contribution to funding in Business and Management, comprising 25% of all income in 2017/18, 22% of which came from EU government bodies. The £15.9m received from the latter was second only to the £18.5m originating from the research councils. There was a very marginal fall in income from EU government bodies in 2017/18 but the amount received was still 37% higher than six years ago.

Research income from EU-based charities fell by 25% over the last year but funding in 2017/18 was ten times higher than in 2012/13, albeit the amounts are relatively small. Funding from EU industry, commerce and public corporations fell by 5% year-on-year and is somewhat below the peak of £1.6m received from this source in 2013/14.

Funding from non-EU industry, commerce and public corporations declined by 6% in the last year, the first annual decrease from this source since 2008/09. Nevertheless, contributions are still more than one and a half times larger than in 2012/13. Contributions from non-EU 'other' sources grew for the sixth year consecutively, and are 9% higher than a year ago and nearly three times higher than in 2012/13.

Table 1

Research income sources - Business and Management studies - 2012/13 to 2017/18 (£000s)

Source of Income	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2012/13 to 2017/18 % change
BEIS Research Councils, The Royal Society, British Academy and The Royal Society of Edinburgh	18,236	19,127	17,699	16,377	17,304	18,529	1.6%
		4.9%	-7.5%	-7.5%	5.7%	7.1%	
UK central government bodies/ local authorities, health and hospital authorities	14,601	13,032	12,926	14,762	14,068	15,199	4.1%
		-10.7%	-0.8%	14.2%	-4.7%	8.0%	
UK central government tax credits for research and development expenditure	0	0	196	107	256	40	
				-45%	139.3%	-84.4%	
UK industry, commerce and public corporations	8,884	6,369	6,248	7,054	7,514	8,347	-6.0%
		-28.3%	-1.9%	12.9%	6.5%	11.1%	
UK-based charities (open competitive process)	2,776	2,609	4,246	3,666	3,631	4,489	61.7%
		-6.0%	62.7%	-13.7%	-1.0%	23.6%	
UK-based charities (other)	1,123	973	1,457	1,353	1,260	1,142	1.7%
		-13.4%	49.7%	-7.1%	-6.9%	-9.4%	
EU government bodies	11,614	13,306	14,765	13,360	16,078	15,940	37.2%
		14.6%	11.0%	-9.5%	20.3%	-0.9%	
EU-based charities (open competitive process)	14	105	38	92	207	155	1007%
		650.0%	-63.8%	142.1%	125.0%	-25.1%	
EU industry, commerce and public corporations	1,083	1,593	1,481	1,174	1,209	1,152	6.4%
		47.1%	-7.0%	-20.7%	3.0%	-4.7%	
EU (excluding UK) other	791	905	868	367	703	877	10.9%
		14.4%	-4.1%	-57.7%	91.6%	24.8%	
Non-EU-based charities (open competitive process)	838	666	832	456	308	421	-49.8%
		-20.5%	24.9%	-45.2%	-32.5%	36.7%	
Non-EU industry, commerce and public corporations	724	744	963	1,112	1,971	1,861	157.0%
		2.8%	29.4%	15.5%	77.2%	-5.6%	
Non-EU other	987	1,548	2,074	2,476	2,649	2,896	193.4%
		56.8%	34.0%	19.4%	7.0%	9.3%	
UK other sources	3,137	2,757	1,506	1,591	1,310	1,435	-54.3%
		-12.1%	-45.4%	5.6%	-17.7%	9.5%	
Total	64,808	63,734	65,299	63,947	68,468	72,483	11.8%
		-1.7%	2.5%	-2.1%	7.1%	5.9%	

CASE STUDY: NHSQUICKER

THE CENTRE FOR SIMULATION, ANALYTICS AND MODELLING, UNIVERSITY OF EXETER BUSINESS SCHOOL



Project background

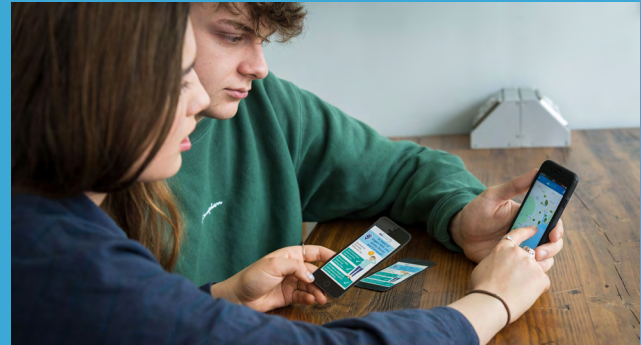
Emergency Department (ED) waiting times have increased substantially over recent years. In the UK this is measured using the four-hour waiting time standard, which states that 95% of patients should be assessed, treated, then either admitted or discharged within four hours of presentation at an ED or a Minor Injury Unit (MIU). Within EDs the NHS has not met this standard nationally since 2013/14.

In 2015 the Torbay & South Devon Urgent Care Network consisted of one ED (Torbay Hospital) and seven MIUs; all MIUs met the standard, while Torbay Hospital's adherence was just under 75%. It was found that those living nearest to the ED were more likely to attend this facility with low-acuity conditions, rather than travel to a more appropriate MIU with potentially much shorter wait times.

Solution

To address the problem, researchers at the University of Exeter Business School alongside stakeholders from Torbay proposed the use of near real-time data and digital technologies to shape demand for urgent care. This idea was developed further through the Health and Care IMPACT Network, and expanded across the South-West of England. The Network was founded through a collaboration between Torbay & South Devon NHS Trust and the University of Exeter, with the aim of improving the delivery of health and care through applied research.

A meeting of the network was organised to co-design the functionality of the solution and brought together many stakeholders, including NHS staff and patient representatives. This led to the realisation of the NHSquicker platform which provides live wait time data. This data is streamed through multiple patient flow management systems that are in use in the ED departments and MIUs operated by Trusts in the region. The platform comprises of a business intelligence dashboard, a backend system and a mobile app (NHSquicker). The app is also integrated with the NHS Directory of Services, which allows easy identification of alternative local health services such as pharmacies.



Benefits

NHSquicker uses 'nudge' to improve patients' decision-making related to ED/MIU attendance choice. It lists urgent care facilities that are in close proximity to the user and presents them in ascending order based on the combined value of wait time with travel times. This helps patients make more informed decisions such as whether to visit a facility which may be nearer to them but with a long waiting time or travel to an alternative location that is further away but with a shorter waiting time. The nudge approach aims to reduce pressure on EDs by redistributing demand for the treatment of minor ailments to the network of MIUs.

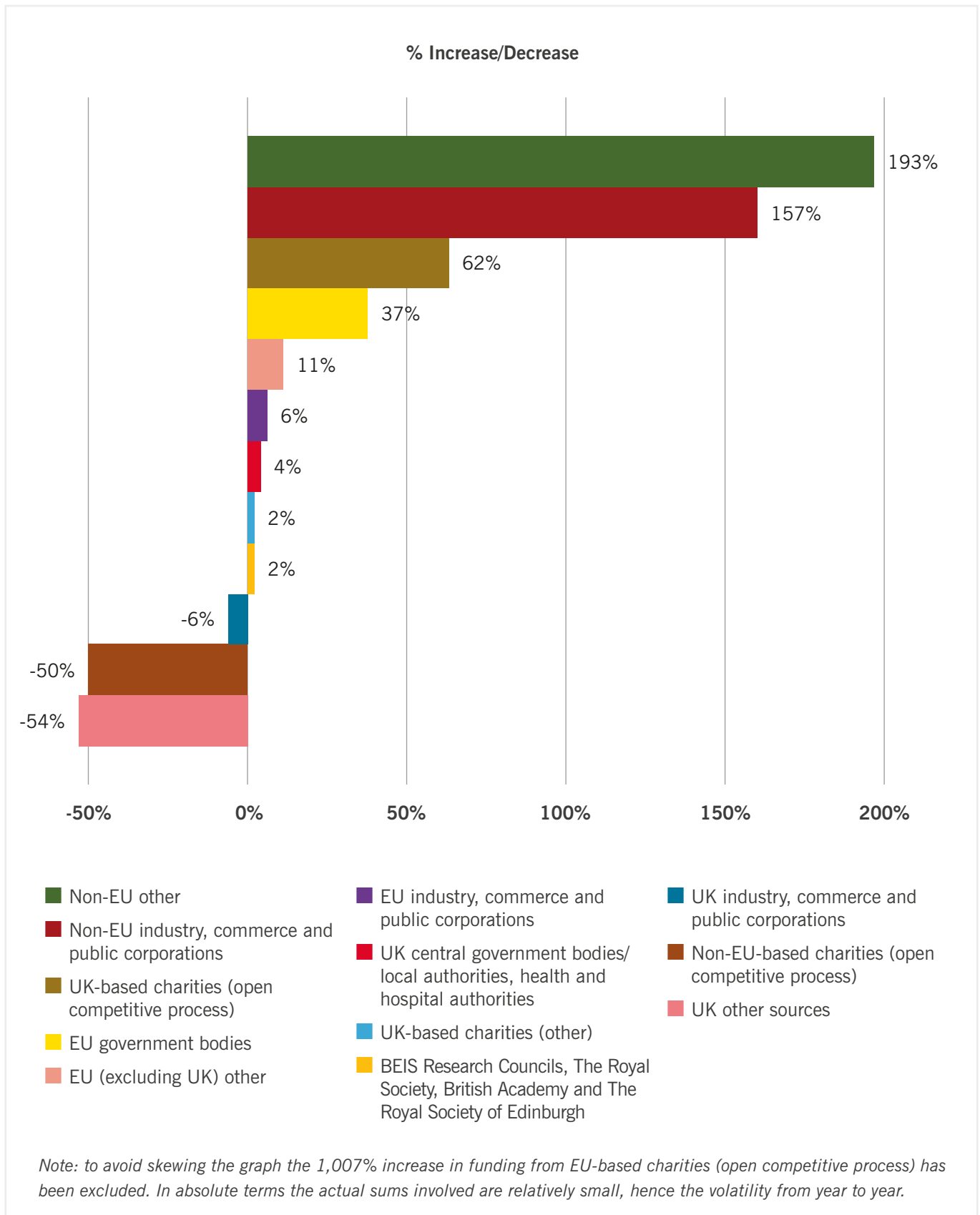
Impact

A cross-sectional survey of low-acuity NHS patients who were waiting for care found that 68% believed that NHSquicker would be useful in the future. Analysis of visits to MIU/ED facilities in the Torbay & South Devon region during peak hours shows a redistribution of demand, with a reduction in ED attendances and an increase in MIU attendances. Further work is needed to ascertain the degree to which NHSquicker has contributed to this shift. The work which started from one Trust has now expanded, with six Trusts sending real-time data from six EDs and 17 MIUs, whilst the NHSquicker app has seen increased uptake in South-West England.

Sources of research funding: NHSquicker has received £60,000 of funding, which includes contributions from the Economic and Social Research Council's Impact Acceleration Account, the South-West Academic Health Sciences Network and the Torbay & South Devon NHS Trust.

Figure 1

Source of income for the subject of Business and Management: comparison of percentage income increases/decreases: 2012/13 to 2017/18

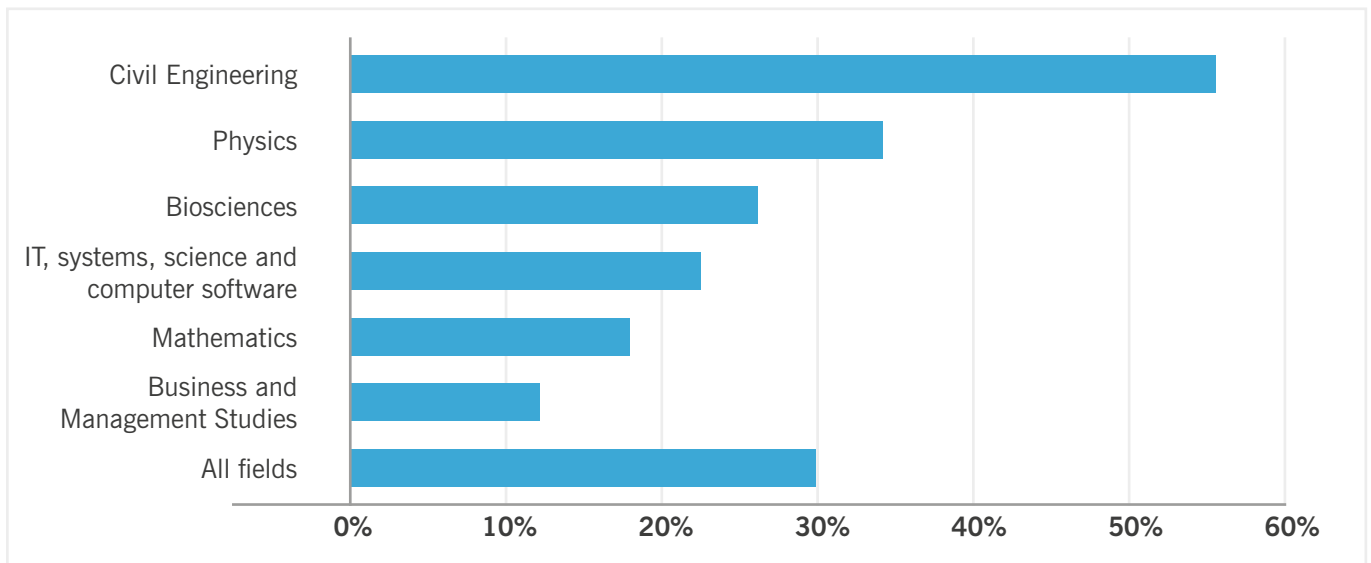


COMPARISON WITH OTHER SUBJECT AREAS

During the six years between 2012/13 and 2017/18, research income for Business and Management Studies recorded an increase of 12%, smaller than seen in several other fields during this period. In contrast all of the STEM subjects received larger increases in funding, including 33% and 55% growth for Physics and Civil Engineering, respectively.

Figure 3

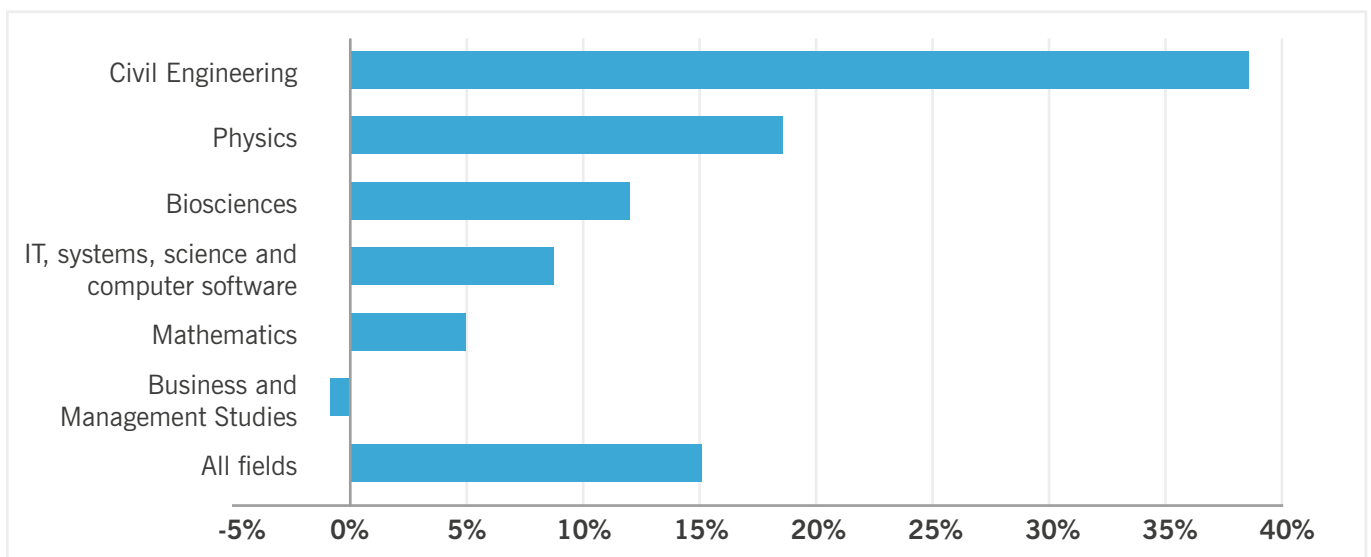
Research income: Business and Management compared with STEM subjects: percentage difference between 2012/13 and 2017/18



If accounting for inflation, Business and Management saw a real-term decrease of 1% in research income. In comparison all the STEM subjects received increases above the rate of inflation, ranging from a 5% increase for Mathematics to a 38% increase for Civil Engineering.

Figure 4

Research income: Business and Management versus STEM subjects: percentage difference between 2012/13 and 2017/18 (inflation adjusted)

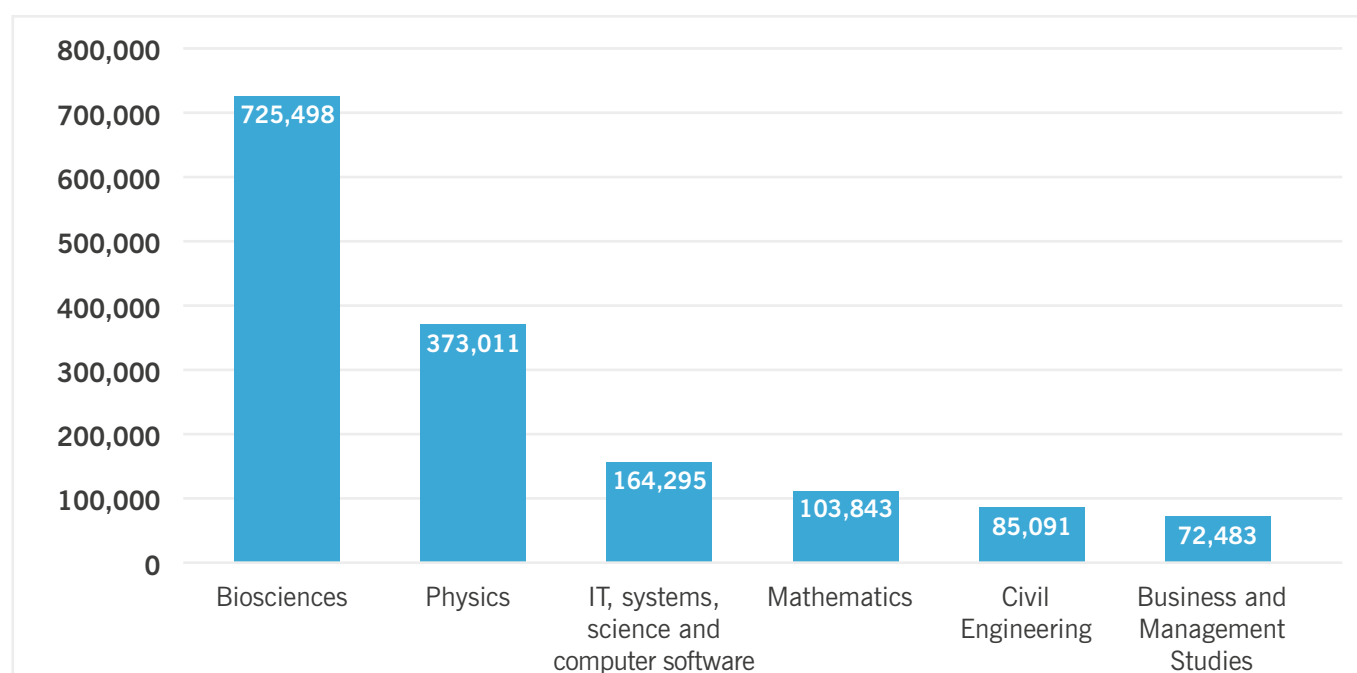


In the last year the 6% increase in overall research income for Business and Management is slightly above the 5% increase across all subject areas, and is higher than for several STEM subjects, including I.T, Mathematics and Civil Engineering. The latter subject saw a 7% fall in research funding since 2016/17 but in recent years overall funding for this field has increased substantially relative to the historical trend.

Table 2
Research income: Business and Management versus STEM subjects (£000s)

Subject Area	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	% increase/ decrease between 2012/13 and 2017/18	% increase/ decrease between 2016/17 and 2017/18
Business and Management Studies	64,808	63,734	65,299	63,947	68,468	72,483	11.8%	6%
IT, systems, science and computer software	134,541	150,535	156,617	154,793	160,622	164,295	22.1%	2%
Biosciences	574,995	645,251	706,433	655,308	682,349	725,498	26.2%	6%
Mathematics	88,019	96,650	97,056	98,503	102,531	103,843	18.0%	1%
Civil Engineering	54,778	56,989	64,731	59,232	91,093	85,091	55.3%	-7%
Physics	279,854	285,189	333,806	356,495	347,451	373,011	33.3%	7%
All Subject Areas Total (£000,000)	4,769	5,084	5,912	5,886	5,861	6,175	29.5%	5%

Figure 5
Business and Management compared with STEM subjects: research income in 2017/18 (£000s)



CASE STUDY: SMART PARKS

CONNECTED COMMUNITIES RESEARCH LAB, LANCASTER UNIVERSITY MANAGEMENT SCHOOL

Project background

A Smart Park is a national or urban park whose operations are enhanced by effective use of smart technologies - and in particular the Internet of Things (IoT) - for the benefit of its stakeholders. The aim is to encourage innovation across a broad range of aspects, including enhancing the tourist economies, visitor experiences, wellbeing of residents whilst contributing substantially to the protection of natural landscapes, biodiversity, wildlife and the environment.

The Smart Park research programme of the Connected Communities Research Lab at Lancaster University Management School is developing the Smart Park model and provides advice to support policy-making and the implementation of the smart dimensions. The Smart Park research involved a comprehensive literature review, discussions with academic and industry subject experts, professional institutions and systems suppliers. These were supplemented by workshops with the park management strategic planning teams.

Solution

The starting point for a Smart Park is a conceptual model developed by drawing on the latest information systems and sensing devices. A park-wide IoT platform constitutes the core of the Smart Park and consists of eight hierarchical levels (L1 to L8) of technology. The composite structure starts with devices (L1) that produce and receive data (L2). The data is transmitted via connectivity channels (L3) to and from the IoT platforms (L4) which comprise data centres.

The solutions layer (L5) addresses specific requirements through software applications for smartphone and other interactive display devices that enable users to carry out everyday tasks such as route planning, booking taxis and hotels to managing more complex business processes remotely. Data analytics techniques (L6) generate additional results so that people and computers supported by artificial intelligence (L7) can develop actionable insights that support decision-making.

The top tier of the IoT stack (L8) represents an intelligence level that enables smart management of the whole park organisation with all stakeholders

working collaboratively to form a park-wide neural network that enables sense-making from the vast array of data continuously generated. The end result is a deeper understanding of the functioning of the park as a whole and more actionable insights for the park management teams and other stakeholders.



Benefits and impact

Through shared systems and services, park managements and businesses can operate more effectively than they can alone. The supply and demand modelling integrated with real-time forecasting of consumer behavior can enable new levels of efficient resource planning and dynamic pricing by establishments such as attractions, eateries and accommodation providers. This enhanced capability for continuous innovation can lead to new business models, new product and service development and operational efficiencies.

The Smart Park report provided the basis of a successful National Lottery Fund bid of £100,000 by the Lake District Foundation, demonstrating the Management School's intellectual capital for generating research with practical outcomes. The Smart Park related research and strategic planning support has also contributed towards the decision by the Mayor of London to declare London as the World's first National Park City and allocate over £12m to park projects around the Capital.

Sources of research funding: Lake District National Park Authority (£10,000) and John Muir Trust and Lake District Estates (£2,375)

TOTAL RESEARCH INCOME BY REGIONS

Most regions have seen growth in income for Business and Management research over the last six years, and schools in certain areas have seen particularly strong increases, including Yorkshire and Humberside (+79%), Wales (+77%), East Midlands (+57%), North-East (+48%) and the South-West (+45%). Only three regions recorded falls in research funding: the North-West (-20%), the East of England (-14%) and London (-8%). Research income for business schools in Scotland saw modest growth during this period (+2%) and the amount of £8.1m received in 2017/18 was the highest for six years.

There are few discernible trends evident geographically but several regions have exhibited more persistent growth. Institutions in Yorkshire and Humberside have grown their research income for five consecutive years and the total of £5.4m in 2017/18 represents an increase of 18% on the previous year. Business schools in the South-West have grown their research income in each of the last four years and the amount of £4.3m in the most recent year is the highest since 2010/11.

As displayed in figure 6, business schools in London and the South-East receive the largest share of research income in Business and Management, together comprising £25.2m in 2017/18 and representing 35% of the total income across all regions.

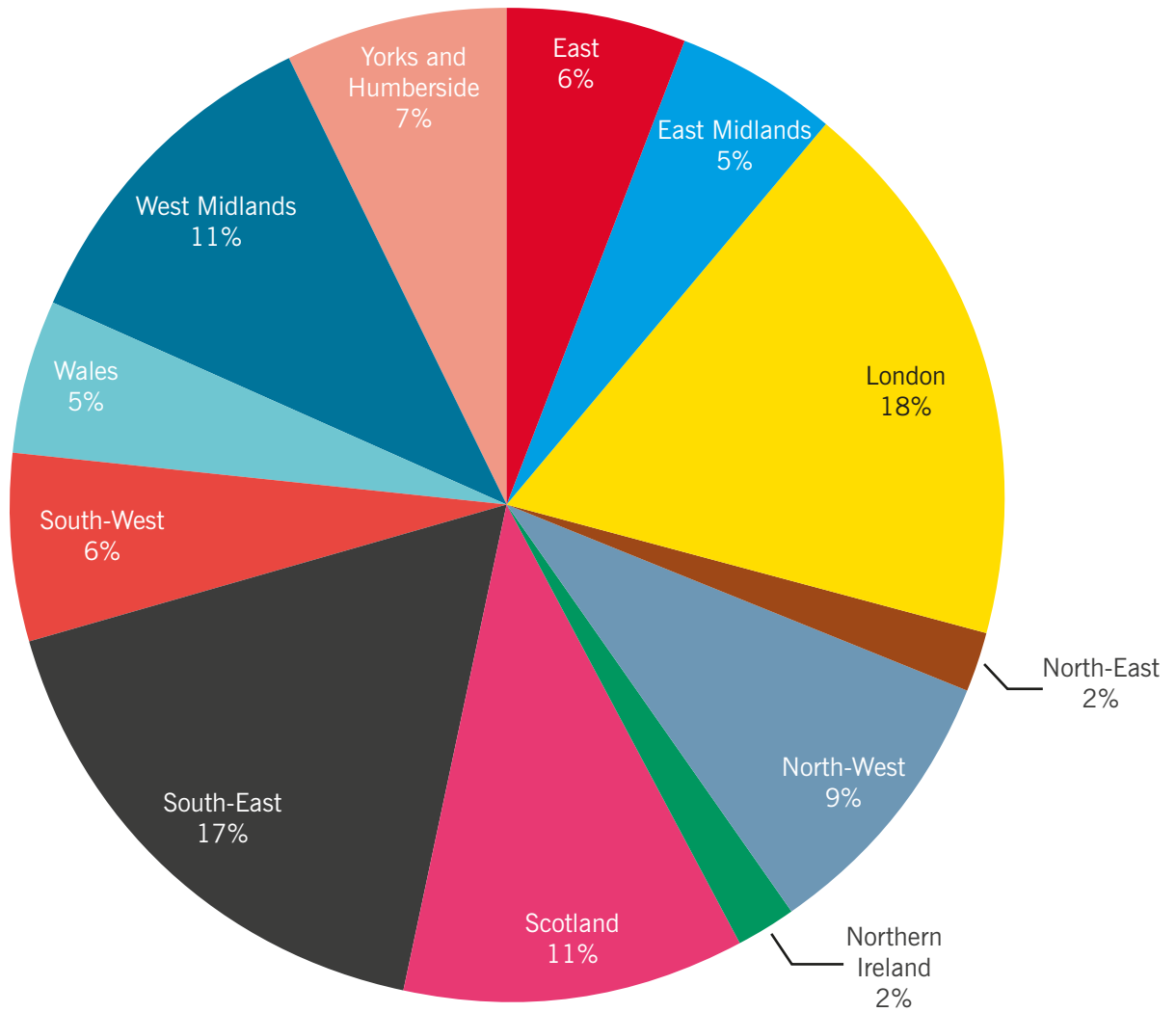
This is a fall compared to previous years when institutions in London and the South-East typically accounted for around 40% of total research income and is due to a 10% decrease in research income in both regions in the last year. In 2017/18 the South-East, West Midlands and Northern Ireland received the highest levels of contributions based on the concentration of business schools in those regions.

Table 3

Research income for Business and Management by regions (£000s): 2012/13 to 2017/18 and percentage increase/decrease

Region (Number of business schools in the region in brackets)	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	% Difference 2012/13 and 2017/18	% Difference 2016/17 and 2017/18
East (8)	5,036	3,467	3,487	3,346	3,871	4,342	-13.8%	12.2%
East Midlands (9)	2,219	1,891	2,328	2,145	2,222	3,478	56.7%	56.5%
London (23)	13,831	14,906	13,779	14,047	14,204	12,795	-7.5%	-9.9%
North-East (5)	741	866	1,031	1,029	969	1,098	48.2%	13.3%
North-West (12)	8,537	6,863	6,150	6,513	7,101	6,855	-19.7%	-3.5%
Northern Ireland (2)	1,357	1,075	1,083	1,349	1,246	1,480	9.1%	18.8%
Scotland (15)	7,966	7,666	7,250	6,286	6,705	8,083	1.5%	20.6%
South-East (15)	10,031	10,919	12,500	12,430	13,856	12,453	24.1%	-10.1%
South-West (10)	2,961	2,858	3,117	3,602	4,112	4,291	44.9%	4.4%
Wales (9)	2,205	1,893	2,147	1,248	2,258	3,907	77.2%	73.0%
West Midlands (11)	6,891	8,063	8,341	7,775	7,328	8,273	20.1%	12.9%
Yorkshire and Humberside (10)	3,033	3,267	4,068	4,177	4,596	5,428	79.0%	18.1%

Figure 6
Overall share of total research income by regions: 2017/18



- | | | |
|-----------------|--------------------|------------------------|
| ■ East | ■ North-West | ■ South-West |
| ■ East Midlands | ■ Northern Ireland | ■ Wales |
| ■ London | ■ Scotland | ■ West Midlands |
| ■ North-East | ■ South-East | ■ Yorks and Humberside |

Figure 7
Research income for Business and Management by region: 2015/16 to 2017/18 (£000s)

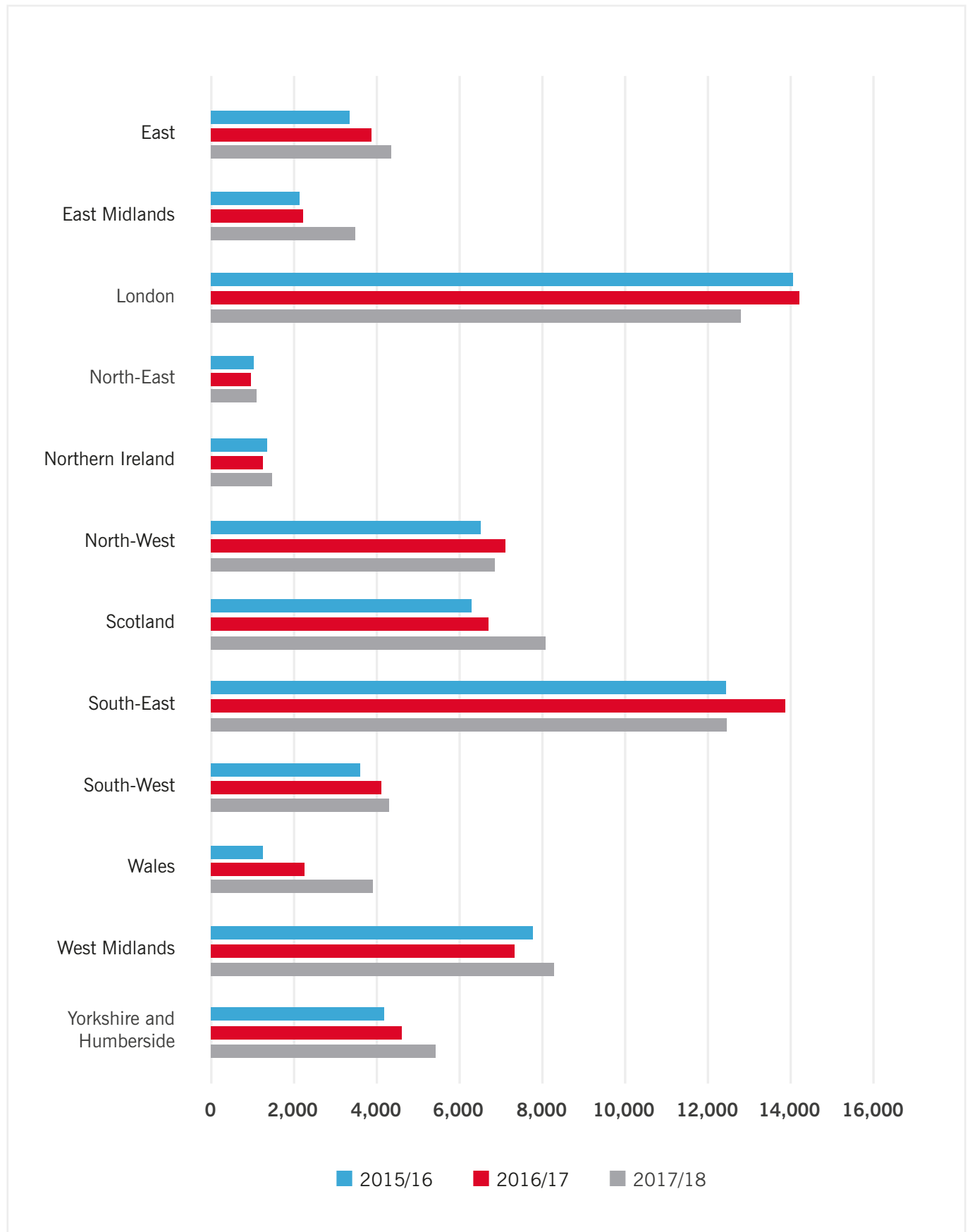
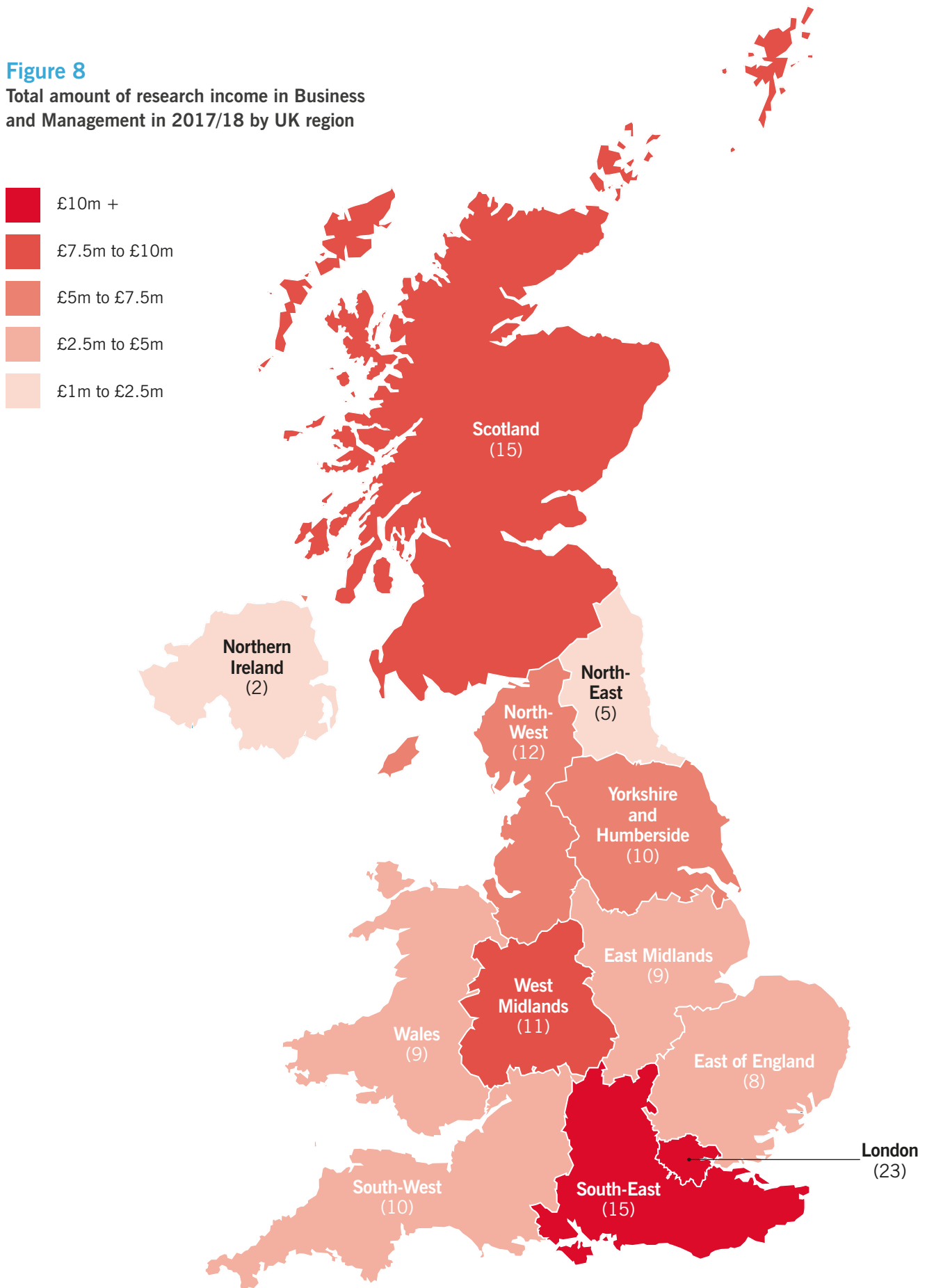


Figure 8

Total amount of research income in Business and Management in 2017/18 by UK region



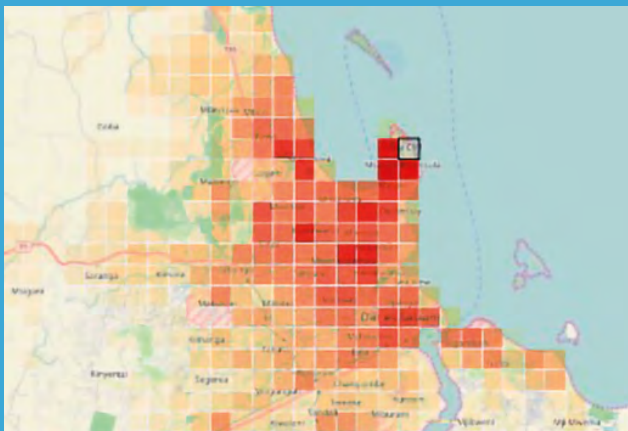
Numbers in brackets denote the number of business schools in the region

CASE STUDY: USING COMMERCIAL BIG DATA FOR ECONOMIC & SOCIAL DEVELOPMENT

N/LAB - NOTTINGHAM UNIVERSITY BUSINESS SCHOOL

Project background

Many developing economies lack the data infrastructures that are taken for granted in countries like the UK. Rapid population change and a paucity of data capture mean that understanding the population is a considerable challenge for businesses and policymakers alike. Everything from retail locations to transport and disaster resilience planning rely on credible insights. This case study gives an example of how proprietary data can be used by policymakers in the developing world in the absence of data from the 'traditional' sources. The technology described has been used in projects undertaken in Africa and Asia with the involvement of the World Bank and numerous multinational commercial partners.



Solution

The N/LAB team at the Nottingham University Business School used machine learning driven data science and analytics to provide invaluable insights into a range of problems and applications in the commercial and policy realm to encourage economic and social development. An excellent example of this was the Projected Augmented Relief Model (PARM) of cellular activity in Tanzania. The PARM is a new display system that provides a physical, 3D approach to data visualisation. Using digital projection onto physical models the PARM provides an engaging and informative display, offering an intuitive frame of reference for placing objects, activities or events into their spatial context.

Benefits and impact

In Tanzania the PARM was generated using anonymised mobile phone records and the display was used to develop socio-economic maps, inform infrastructure and transport development among many other applications. A mobile PARM installation was used to examine how projection models might assist with urban planning and disaster resilience in East Africa. Using the mobile phone records, human mobility was visualised and the results layered over satellite imagery of the region.

The PARM system was then used as a tool to aid discussions with Dar es Salaam City Council and World Bank members concerning the biannual flooding of the region. The temporal nature of the data visualisation demonstrated how projection mapping technologies may be successfully combined with 'Big Data' to help invigorate decision-making processes around flooding, especially in areas requiring public consultation.

Experimental research involving direct comparisons between 2D maps and PARM showed that PARM enabled users to make more accurate judgements on questions such as the relative height of two points or the intervisibility between them (this refers to the ability to see in a direct line of sight from one position on the earth's surface to another). Informed by these and other experiences the PARM technique is now being developed for use as an aid to spatial decision support and for consultation and education, using flood mapping as a primary case study.

Sources of research funding: This project was supported by funding received under two grants from the Engineering and Physical Sciences Research Council : *From Human Data to Personal Experience* (£4.1m) and *Neo-demographics: Opening Developing World Markets by Using Personal Data and Collaboration* (£612,744).

TOTAL RESEARCH INCOME BY NATION

The figures by nation show that business schools in England have increased their research income in each of the last four years, and it is now 11% higher than in 2012/13. Institutions in Scotland saw research funding grow for the second year in a row, reversing the three year decline between 2013/14 and 2015/16. However, total income in 2017/18 was only 2% higher than six years ago.

The figures for business schools in Wales reveal no discernible trend and the 77% increase in research funding since 2012/13 is largely the result of a substantial increase in income in 2017/18. It remains to be seen if this marks the start of an upward trend for Welsh institutions. The figures for schools in Northern Ireland also show no real trend from year to year but it is promising that research income has increased in two out of the last three years.

As displayed in figure 9 on the following page, the share of total research income of business schools based in England has declined in the last two years, from 86% in 2015/16 to 81% in 2017/18. This has coincided with the increase in income from institutions in Wales, which now account for 5% of the total, up from 2% in 2015/16. The share of income of Scottish business schools stands at 11%, a 1% increase from last year.

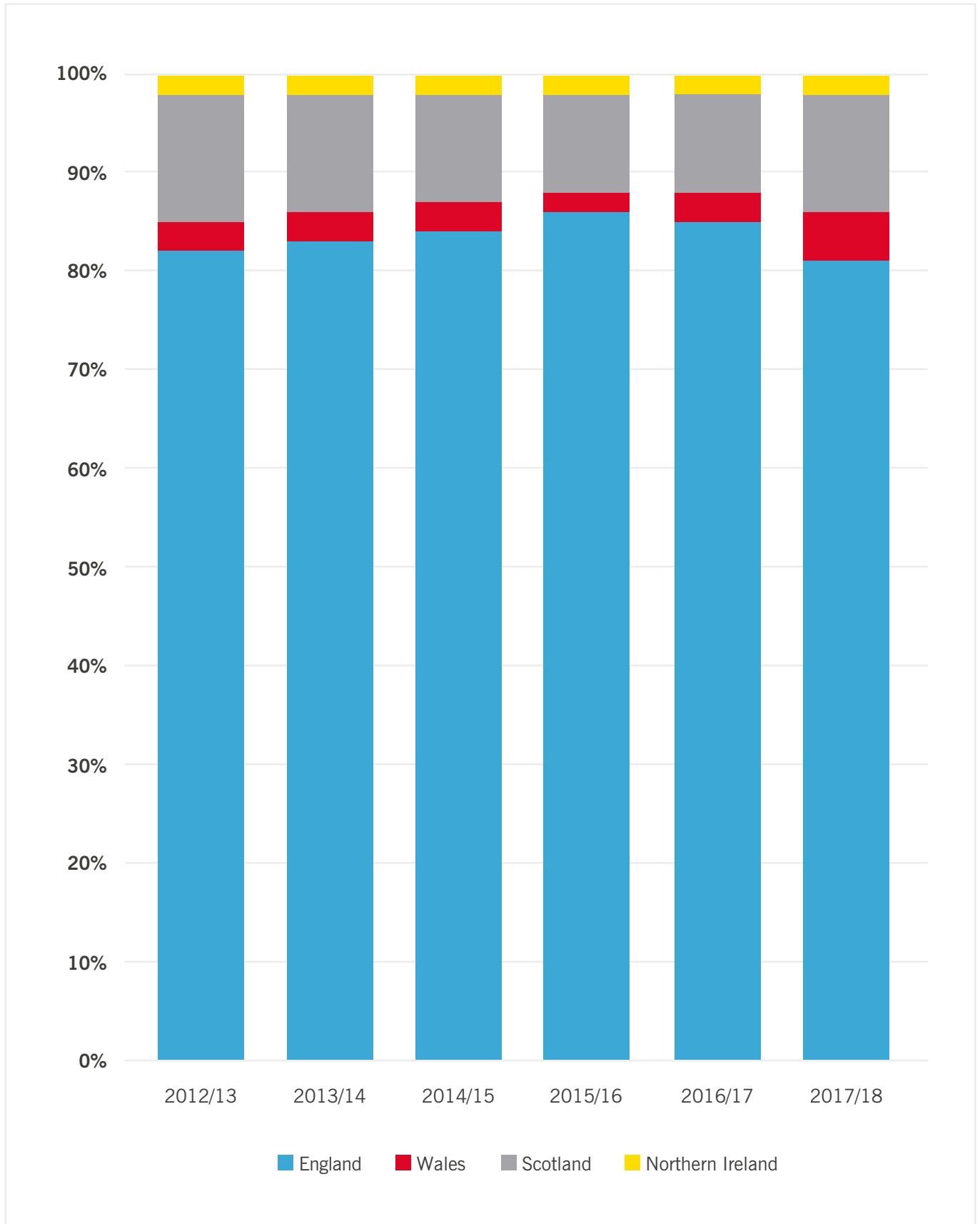
Table 4

Research income for Business and Management by nation (£000s): 2012/13 to 2017/18 and percentage increase/decrease

Nation	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	% Difference 2012/13 and 2017/18	% Difference 2016/17 and 2017/18
England	53,280	53,100	54,801	55,064	58,259	59,013	10.8%	1.3%
Wales	2,205	1,893	2,147	1,248	2,258	3,907	77.2%	73.0%
Scotland	7,966	7,666	7,250	6,286	6,705	8,083	1.5%	20.6%
Northern Ireland	1,357	1,075	1,083	1,349	1,246	1,480	9.1%	18.8%

Figure 9

Annual trends in share of research income by nation: 2012/13 to 2017/18



BUSINESS SCHOOLS BY RESEARCH INCOME

Listed in the table below are 13 business schools which each received a total of at least £4m in research income in Business and Management during the last three years. The two business schools with the highest amounts of research income are both Russell Group institutions. Four of the other institutions in the list – Imperial, the University of Oxford, the London School of Economics and the University of Leeds – are also members of the Russell Group.

The other seven institutions in the table are non-affiliated and these received a combined total of £43.2m in research income between 2015/16 and 2017/18. Non-affiliated business schools accounted for 49% of all research income in 2017/18, an increase from 44% last year and 42% in 2015/16.

Table 5

Business schools with research income of at least £4m for the combined period of 2015/16 to 2017/18 (£000s)

Institution	2015/16	2016/17	2017/18	Total
University of Warwick	5,103	4,256	4,430	13,789
University of Manchester	4,134	4,658	4,006	12,798
University of Sussex	2,840	3,714	4,274	10,828
Imperial College of Science, Technology and Medicine	3,602	3,646	3,548	10,796
University of Oxford	3,230	3,528	2,333	9,091
London School of Economics and Political Science	2,639	3,278	2,454	8,371
University of Strathclyde	2,409	2,426	3,080	7,915
University of Reading	2,362	2,124	1,849	6,335
University of Leeds	1,883	1,942	1,955	5,780
London Business School	1,685	2,048	1,888	5,621
The University of Stirling	1,384	1,246	1,752	4,382
City, University of London	1,179	1,435	1,501	4,115
Aston University	1,145	1,435	1,436	4,016

RESEARCH FUNDING CONCENTRATION

The five highest earning institutions during the period of 2015/16 to 2017/18 received a total of £57m in Business and Management research funding, which comprises 28% of the total across all institutions.

The ten highest earning business schools over the last three years received £91m in contributions for research, which represents 45% of the total allocations for all UK business schools.

Figure 10

Total research income for the period 2015/16 to 2017/18: 5 highest earning business schools

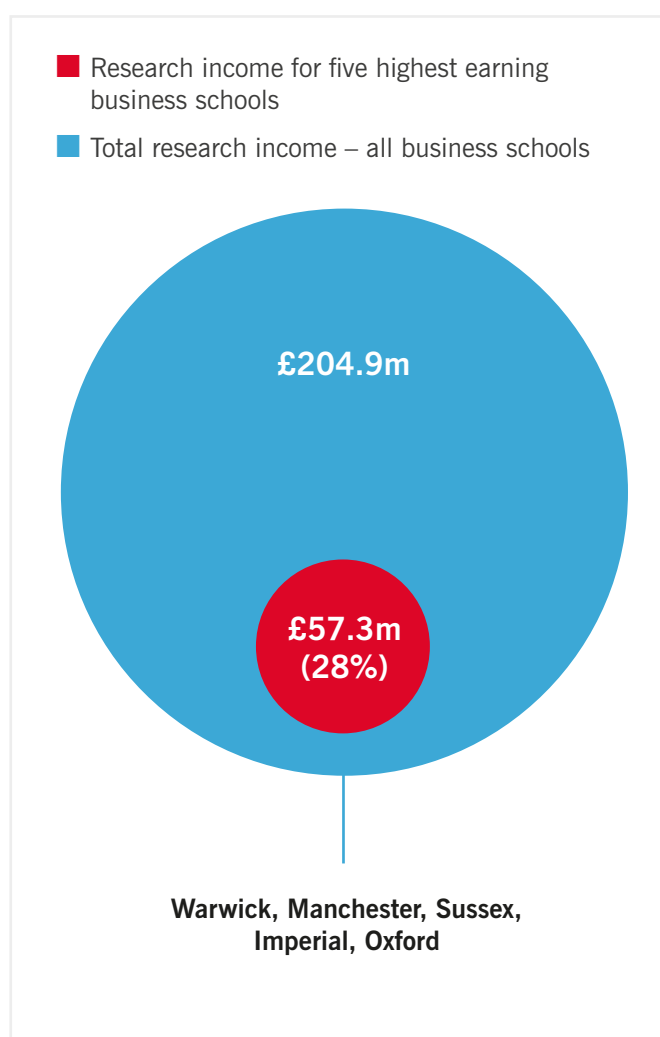
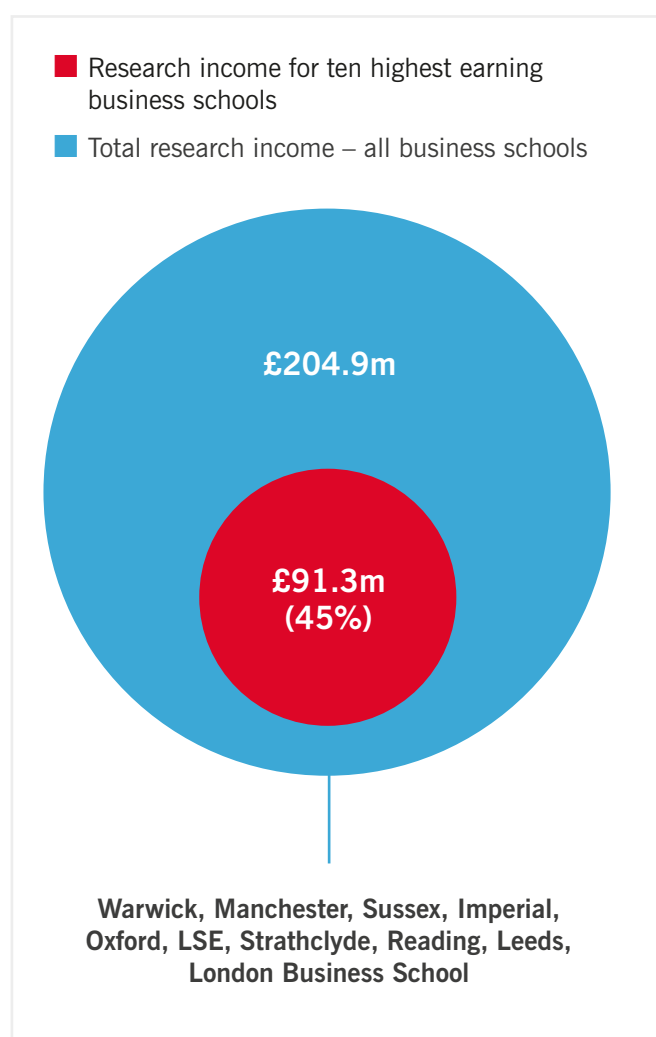


Figure 11

Total research income for the period 2015/16 to 2017/18: 10 highest earning business schools



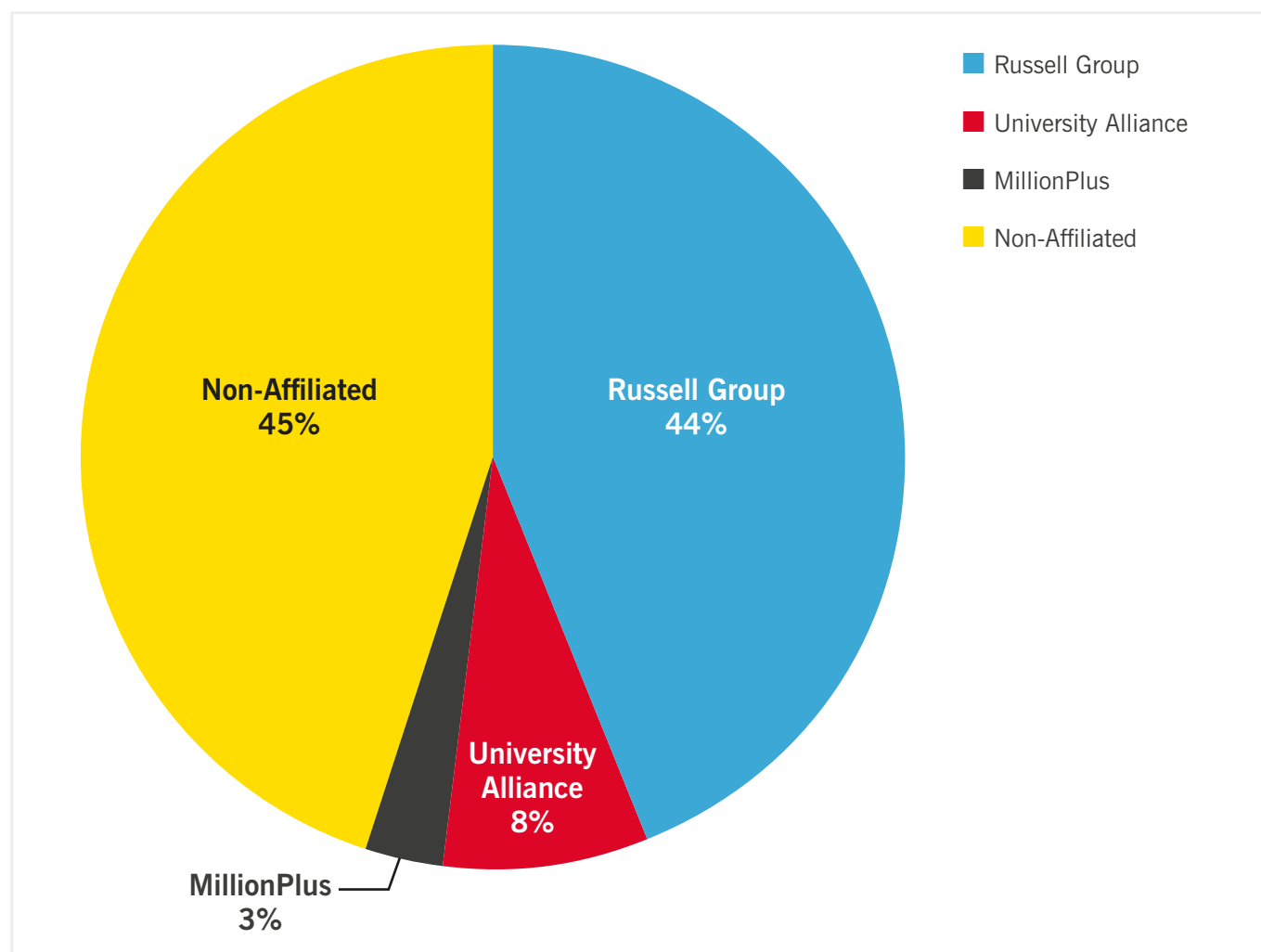
The 20 business schools with the highest amounts of research income received £129m over the previous three years, which makes up 63% of research income across all UK business schools. This means that nearly 100 institutions share the remaining 37% of research funding.

RESEARCH INCOME BY MISSION GROUP

During the six year period of 2012/13 to 2017/18 business schools not affiliated to a mission group had the largest share of research funding for Business and Management, very marginally higher than the share of the Russell Group institutions. The non-affiliated institutions comprise a total of 63 business schools, larger than any of the mission groups.

Figure 12

Share of total research income by Mission Group: 2012/13 to 2017/18



As depicted in figure 13 on the next page, the share of total Business and Management research income received by Russell Group institutions has declined from 44% in 2012/13 to 41% in 2017/18. In 2011/12 the Russell Group accounted for nearly half of all research income in Business and Management.

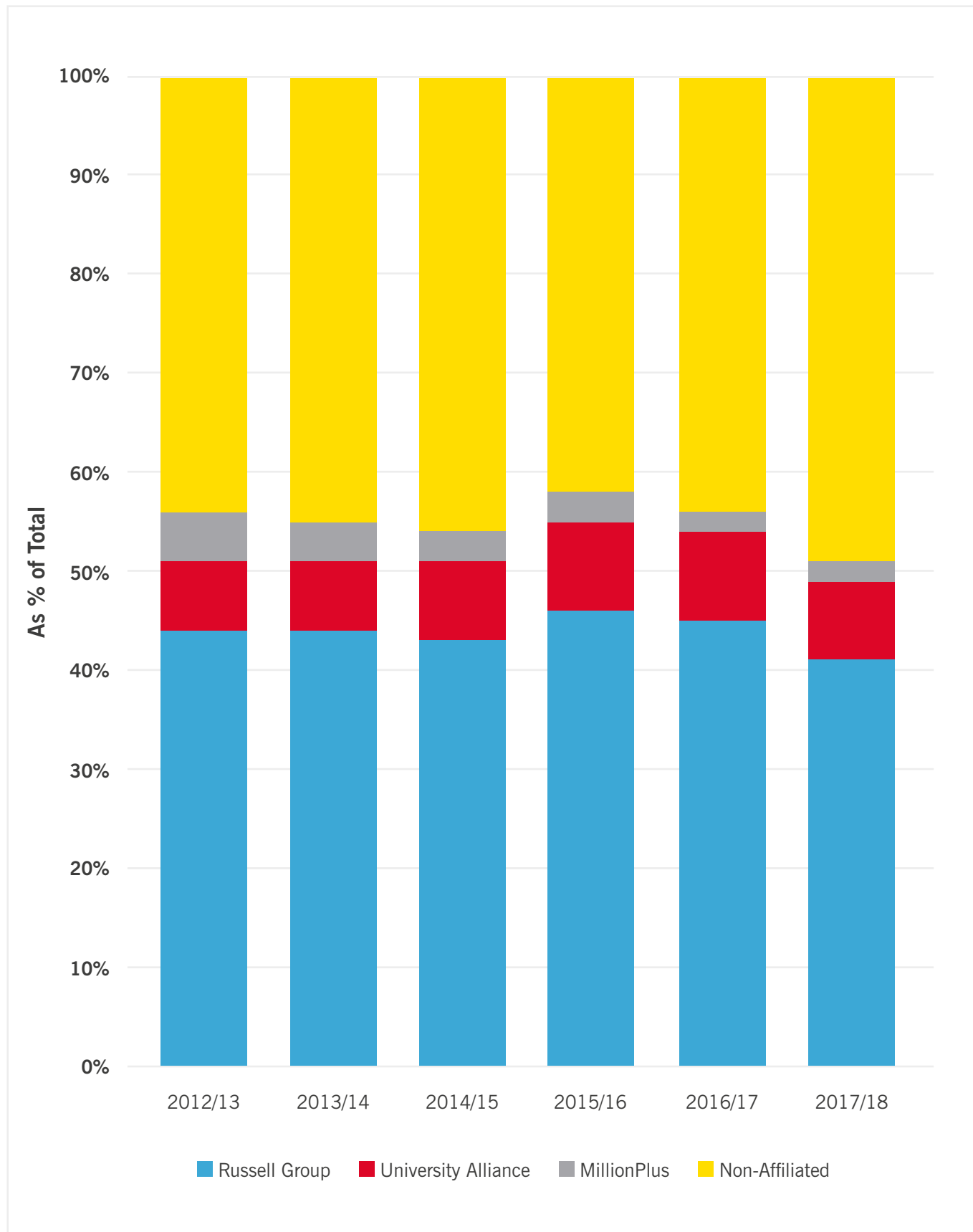
In absolute terms the contributions received by the Russell Group have increased slightly relative to six years ago (+4%), but their overall share has fallen as schools from outside of this group saw their research income grow by a larger proportion. The total income for the non-affiliated schools of £35.5m in 2017/18 is 17% higher than a year ago and nearly one-quarter higher than in 2012/13. The overall share of research income belonging to the non-affiliated business schools stood at 49% for the most recent year, up from 44% six years ago.

The University Alliance grouping has increased its total Business and Management research income in each of the last five years, rising from £4.3m in 2012/13 to £6.1m in 2017/18, a proportional increase of 43%. Despite this upward trend, the share of total income for schools from this group remains under 10%.

Note: Data in this section is based on the mission group membership of each institution as of March 2019.

Figure 13

Annual trends in share of total research income by Mission Group: 2012/13 to 2017/18



RUSSELL GROUP

Institutions from the Russell Group received £175m in research income over the six year period of 2012/13 to 2017/18, which comprised 44% of the total funding allocations received by business schools during this time frame. Total income was down by 3% compared to a year ago but up by a modest 4% relative to 2012/13.

Table 6

Russell Group: research income from Business and Management (£000s)

Institution	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Sum 2012/13 to 2017/18
The University of Warwick	3,730	4,735	5,051	5,103	4,256	4,430	27,305
Imperial College of Science, Technology and Medicine	5,579	4,314	3,879	3,602	3,646	3,548	24,568
The University of Manchester	4,048	2,877	2,914	4,134	4,658	4,006	22,637
The University of Oxford	2,282	2,660	3,396	3,230	3,528	2,333	17,429
London School of Economics and Political Science	1,406	2,717	1,744	2,639	3,278	2,454	14,238
The University of Leeds	1,579	1,749	1,988	1,883	1,942	1,955	11,096
Cardiff University	1,412	1,110	1,279	826	882	1,518	7,027
The University of Cambridge	1,510	1,166	856	1,001	958	875	6,366
The University of Exeter	1,213	1,145	1,070	600	895	1,090	6,013
The University of Sheffield	479	902	924	987	1,416	1,191	5,899
University of Nottingham	1,329	770	921	882	516	291	4,709
The University of Birmingham	577	581	575	763	820	1,229	4,545
The University of Southampton	555	678	708	782	660	696	4,079
The University of Edinburgh	530	447	604	571	508	728	3,388
The University of Glasgow	454	306	429	521	564	645	2,919
Newcastle University	154	322	495	512	474	476	2,433
Queen's University Belfast	352	270	270	363	407	706	2,368
University of Durham	375	420	344	310	345	458	2,252
King's College London	345	372	247	161	253	324	1,702
Queen Mary University of London	93	288	285	362	227	201	1,456
The University of Liverpool	301	296	263	78	192	247	1,377
The University of York	-15	24	58	39	150	220	476
The University of Bristol	102	29	56	10	25	72	294
University College London	147	101	0	9	15	18	290
Total	28,537	28,279	28,356	29,368	30,615	29,711	174,866

UNIVERSITY ALLIANCE

Institutions from the University Alliance recorded £32.2m of research income in Business and Management over the last six years. The total amount of £6.1m received in 2017/18 is 43% higher than six years ago, partly driven by the addition of new members to the group.

Table 7

University Alliance: research income from Business and Management (£000s)

Institution	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Sum 2012/13 to 2017/18
The Open University*	365	749	752	1,152	1,182	1,406	5,606
University of the West of England, Bristol	519	644	763	1,121	1,274	1,061	5,382
Coventry University	467	1,128	664	516	645	686	4,106
The University of Greenwich	463	549	671	797	480	497	3,457
The Manchester Metropolitan University	445	143	653	517	759	522	3,039
The University of Brighton*	637	282	692	558	583	236	2,988
Kingston University	408	254	98	155	333	510	1,758
University of Hertfordshire	168	242	267	308	196	91	1,272
Oxford Brookes University	205	129	327	123	148	111	1,043
The Nottingham Trent University	80	85	126	127	193	259	870
The University of Portsmouth	198	85	80	139	107	249	858
The University of Central Lancashire*	188	102	78	184	43	45	640
The University of Salford	136	198	125	65	13	96	633
Liverpool John Moores University	20	4	4	1	8	331	368
University of South Wales	0	94	105	-62	5	33	175
Teesside University	6	0	0	0	8	3	17
Total	4,305	4,688	5,405	5,701	5,977	6,136	32,212

Note: Institutions denoted with an asterisk were not members of the University Alliance mission group for the entire period of analysis.

MILLIONPLUS

Business schools within the MillionPlus mission group received a total of £12.4m in research income over the six year period of analysis. Research funding for these schools has fallen for five consecutive years and the £1.2m received in 2017/18 was 64% less than in 2012/13.

Table 8

MillionPlus: Research income from Business and Management (£000s)

Institution	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Sum 2012/13 to 2017/18
Middlesex University	618	465	883	997	781	486	4,230
Anglia Ruskin University	1,114	743	368	167	258	221	2,871
Edinburgh Napier University	382	338	73	167	129	73	1,162
Glasgow Caledonian University	171	193	139	-13	69	83	642
The University of the West of Scotland	102	99	96	88	105	47	537
The University of Wolverhampton*	59	80	149	103	16	97	504
University of Abertay Dundee	288	-1	0	43	76	17	423
London Metropolitan University	132	122	38	59	12	7	370
University of Cumbria	24	75	106	83	11	49	348
Canterbury Christ Church University	48	105	50	18	16	2	239
The University of East London	46	62	10	45	45	19	227
The University of Sunderland	56	27	30	63	-1	21	196
London South Bank University	114	55	11	11	0	0	191
University of Bedfordshire	20	7	44	30	11	18	130
Staffordshire University	72	11	0	0	7	17	107
Solent University	54	11	29	0	0	0	94
University of the Highlands and Islands	0	0	0	0	20	28	48
Bath Spa University	23	0	0	0	0	0	23
The University of Bolton	0	0	12	0	0	0	12
The University of West London	4	0	0	0	0	0	4
Leeds Trinity University	0	0	0	2	2	0	4
Total	3,327	2,392	2,038	1,863	1,557	1,185	12,362

Note: The University of Wolverhampton was not a member of the MillionPlus mission group for the entire period of analysis.

NON-AFFILIATED BUSINESS SCHOOLS

For all non-affiliated business schools the total income for Business and Management research was £179.2m for the combined period of 2012/13 and 2017/18, comprising 45% of all research funding for business schools. The research income for the non-affiliated schools is 24% higher than in 2012/13. The increase has been particularly substantial in the last two years, with total income increasing from £27m in 2015/16 to £35.5m in the most recent year.

Table 9

Non-affiliated: research income from Business and Management (£000s)

Institution	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Sum 2012/13 to 2017/18
The University of Sussex	2,089	2,380	2,941	2,840	3,714	4,274	18,238
The University of Strathclyde	2,216	2,529	2,325	2,409	2,426	3,080	14,985
The University of Reading	2,219	2,211	1,757	2,362	2,124	1,849	12,522
The University of Lancaster	3,364	3,160	1,982	1,443	1,283	1,190	12,422
London Business School	1,464	1,577	1,608	1,685	2,048	1,888	10,270
The University of Stirling	1,469	1,664	1,443	1,384	1,246	1,752	8,958
Aston University	1,736	1,355	1,703	1,145	1,435	1,436	8,810
City, University of London	1,363	1,688	1,582	1,179	1,435	1,501	8,748
Cranfield University	1,892	1,000	1,205	1,003	1,443	1,433	7,976
The University of Surrey	664	765	1,249	631	1,185	860	5,354
Ulster University	1,005	805	813	986	839	774	5,222
SOAS University of London	660	959	991	808	336	527	4,281
The University of Bath	406	282	262	812	1,155	1,319	4,236
Brunel University London	535	735	792	740	508	217	3,527
Swansea University	171	96	89	44	1,108	2,017	3,525
Loughborough University	399	492	636	662	659	675	3,523
Heriot-Watt University	308	381	455	588	845	868	3,445
The University of Hull	172	129	413	557	516	1,437	3,224
The University of Essex	101	114	468	663	900	762	3,008
Queen Margaret University, Edinburgh	1,143	900	771	8	61	13	2,896
University of Plymouth	202	264	622	793	474	337	2,692
The University of Leicester	224	384	428	295	273	605	2,209
Bournemouth University	475	488	332	229	237	287	2,048
The University of St Andrews	454	451	382	180	170	289	1,926
The University of East Anglia	231	195	279	163	76	942	1,886
The University of Westminster	306	381	319	359	295	163	1,823
The University of Lincoln	162	23	106	106	126	1,295	1,818
The University of Kent	174	89	83	226	343	288	1,203
Leeds Beckett University	148	157	279	223	207	119	1,133
The University of Aberdeen	252	160	202	172	227	107	1,120
Aberystwyth University	107	189	389	259	75	87	1,106

Institution	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Sum 2012/13 to 2017/18
Royal Holloway and Bedford New College	55	244	311	230	136	117	1,093
The University of Huddersfield*	192	65	104	187	269	235	1,052
Bangor University	294	332	166	28	54	90	964
Roehampton University	32	178	336	271	74	44	935
Buckinghamshire New University	373	366	6	31	115	10	901
Keele University	126	130	114	54	80	357	861
University of Northumbria at Newcastle	150	97	162	144	143	140	836
De Montfort University	133	113	29	43	281	184	783
The University of Bradford	170	149	186	112	42	102	761
The Robert Gordon University	53	81	192	44	165	221	756
Birkbeck College	102	89	190	97	145	129	752
The University of Dundee	144	118	139	124	94	132	751
Sheffield Hallam University*	146	69	90	109	52	78	544
Cardiff Metropolitan University	57	0	21	157	97	162	494
Goldsmiths College	11	0	15	24	141	209	400
Liverpool Hope University	9	0	2	0	107	268	386
Birmingham City University	118	40	76	58	45	21	358
University of the Arts, London	0	0	80	47	152	53	332
University of Derby	54	40	19	15	71	130	329
The University of Chichester	79	112	53	9	0	21	274
University of Gloucestershire	14	6	12	37	52	125	246
The University of Northampton	0	7	63	15	103	39	227
York St John University	0	0	44	78	0	91	213
Glyndwr University	12	72	98	-4	0	0	178
The University of Winchester	34	53	66	16	0	1	170
University of Chester	2	6	0	0	23	97	128
The University of Buckingham	0	0	0	83	15	0	98
University of Worcester	6	3	9	33	24	0	75
University of Suffolk	0	0	0	11	29	0	40
University of Wales Trinity Saint David	0	0	0	0	37	0	37
Edge Hill University	0	2	11	8	4	4	29
The University of Wales, Newport	10	0	0	0	0	0	10
Total	28,487	28,375	29,500	27,015	30,319	35,451	179,147

Note: The table only includes those non-affiliated business schools that received at least some research income in Business and Management during the period of 2012/13 to 2017/18.

Institutions denoted with an asterisk were previously affiliated with a mission group during the period of analysis.



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