

LONDON MATHEMATICAL SOCIETY DATA REPORT ON:

Research Income of Mathematical Sciences in UK Higher Education Institutions

July 2014



Front cover image: "Twisted Pseudospheres" - Dr Nicholas Schmitt

This report was prepared for the London Mathematical Society by Sean McWhinnie of Oxford Research and Policy. Oxford Research and Policy is a consultancy that carries out research and evaluation, and specialises in higher education, science policy, and equality and diversity.

E-mail info@oxfordresearchandpolicy.co.uk www.oxfordresearchandpolicy.co.uk

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Definitions

Business research element

Additional funding provided as an additional element in QR to support institutions undertaking research with business and industry. This is allocated in proportion to the income they receive from business for research.

Category A staff

Research active staff who were employed by and on the payroll of the submitting HEI at the census date for each research assessment exercise.

Cost centres

Cost centres are a set of "subjects" used for the reporting of management data and are defined by HESA. The list of cost centres includes mathematics, physics, electrical engineering & computer engineering (EECE), information technology & systems sciences, computer software engineering (IT&SS, CSE), chemistry, and biosciences. HEIs are required to map their constituent departments/schools to cost centres. If they wish they can apportion departments across a number of cost centres.

Charity support fund

Additional funding provided as an additional element in QR funding in proportion to the (London-weighted) income institutions received from charities for research.

Dual support system

The system of state funding for research whereby some funding is provided by the funding councils (QR research income) to support a foundation for strategic and applied work, and by the research councils who fund individual research project costs and the indirect costs associated with each project.

DELNI

Department for Employment and Learning Northern Ireland.

External research income

Research income additional to the quality-related research income provided by the funding councils.

fEC

Full economic costing of research. A system whereby HEIs account for the full cost of research including all the overheads.

HEFCE

Higher Education Council for England.

HEFCW

Higher Education Funding Council for Wales.

HEI

Higher Education Institution.

National Research Libraries funding

This is additional support provided through QR funding for five research libraries which HEFCE have designated as being of national importance on the basis of a review in 2007.

RDP

Research degree programme supervision fund. This is an additional element included in QR funding which reflects postgraduate research student numbers in departments that attract mainstream QR funding, the relative costs of the subjects they are studying, quality and London weighting.

SFC

Scottish Funding Council.

Total research income

Total research income for all sources, i.e., the sum of QR income and external research income.

QR

Quality-related research income. Income from the funding councils is dependent on the result of research assessment exercises and is passed on to HEIs as part of their block grant. This income also includes some additional elements such as the research degree programme (RDP) supervision fund, charity support fund, business research element and funding for National Research Libraries.

UoA

Unit of assessment. A set of "subjects" under which HEIs may submit their research for research assessment.

1. Introduction

This report is part of a series commissioned by the London Mathematical Society. The intention is to provide an accessible reference document containing data on Research Income of Mathematical Sciences in UK Higher Education Institutions (HEIs).

The report presents the latest available data on research income recorded under the Mathematical Sciences cost centres. The data sources are the Higher Education Statistics Agency (HESA), the central source for the collection and dissemination of statistics about publicly funded UK higher education, and the UK funding councils (Higher Education Funding Council for England (HEFCE), Scottish Funding Council (SFC), Higher Education Funding Council for Wales (HEFCW), and the Department for Education and Learning Northern Ireland (DELNI)).

1.1 Cost centres and units of assessment

HESA requires external research income data to be returned with income assigned to cost centres and is reported by HESA on the basis of those cost centres. The list of HESA cost centres includes mathematics, physics, electrical engineering & computer engineering (EECE), information technology & systems sciences, computer software engineering (IT&SS, CSE), chemistry, and biosciences. HEIs are required to map their constituent departments/schools to cost centres. If they wish they can apportion departments across a number of cost centres.

Cost centres vary greatly in their breadth of coverage, for example, biosciences covers a large range of university departments including, Life and Health Sciences, Biomedical Sciences, Cancer Research, Biochemistry, and Sports Sciences. Full details of the mapping between departments and cost centres are available on the HEFCE website.¹

In this report we refer to the mathematics cost centre as **Mathematical Sciences**. We have chosen to do this so as to make explicit the fact that 'mathematics' in HESA's terminology, includes for example Statistics and Operational Research. In addition we have combined the electrical engineering & computer engineering and information technology & systems sciences, computer software engineering cost centres into a new cost centre which we refer to as **Electrical Engineering & CS/IT**. The full list of cost centres dealt with in this report are:

- Mathematical Sciences
- Physics
- Electrical Engineering & CS/IT
- Chemistry
- Biosciences

Quality-related (QR) research funds distributed by the funding councils (since 2008 in Scotland this funding) is known as Research Excellence Grant (REG) funding) are calculated based on units of assessment (UoAs).² Funding councils publish the sums generated by individual UoAs in HEIs, although the funds are transferred to HEIs as part of their annual recurrent block grant. There were 69 UoAs before the 2001 Research Assessment Exercise (RAE). For the RAE 2001 the biochemistry UoA was combined with the biological sciences UoA. 68 UoAs were used until the RAE 2008. A number of amendments were made to the UoAs for the RAE 2008 resulting in a total of 67. Mappings are published of UoAs to cost centres.

In this report, in order to be comparable with external research income, QR income is reported and discussed on the basis of cost centres rather than UoAs. The mapping between cost centres and units of assessment is shown in table 1.

1 Assignment of departments to academic cost centres 2001-02, HEFCE, Swindon, 2001 (http://www.hefce.ac.uk-pubs-hefce-2002-02_25.htm)

2 For convenience in this report, when the term QR funding is used it is implied that this also applies to the Scottish REG.

Table 1: Mapping between cost centres used in this report and units of assessment used in the RAE2001 and RAE2008

Cost Centre	Unit of Assessment RAE2001	Unit of Assessment RAE2008	
	Applied Mathematics	Applied Mathematics	
Mathematical Sciences	Pure Mathematics	Pure Mathematics	
	Statistics and Operational Research	Statistics and Operational Research	
Physics	Physics	Physics	
Electrical Engineering & CC/IT	Computer Science	Computer Science and Informatics	
Electrical Engineering & CS/II	Electrical and Electronic Engineering	Electrical and Electronic Engineering	
Chemistry	Chemistry	Chemistry	
Biosciences	Biological Sciences	Biological Sciences	

1.2 Research income

The "Dual Support System" for research income comprises funds for basic research supported by the funding councils providing a foundation for strategic and applied work, and income from the research councils who fund individual research project costs and the indirect costs associated with each project.

The annual external research income means the amount **spent** from grants during each year rather than being the values of grants **awarded** in that year.

Funding council monies comprise QR funding provided to HEIs to cover the costs of the research infrastructure, which includes academic staff salaries, premises, central computing and library facilities. A number of different components are used in calculating mainstream QR funding namely: volume measures; a quality measure; subject cost weightings; and London Weighting. Not all funding councils necessarily follow the same methodology, for example, subject weightings may vary.³ QR income also includes a number of additional elements such as the research degree programme (RDP) supervision fund, charity support fund, business research element and funding for National Research Libraries. A detailed account of funding council methodology, prepared by the Research Policy Committee of the London Mathematical Society, can be read in the document at http://www.lms.ac.uk/policy/policy-consultations.

Data in this report are reported on the basis of individual UoAs' allocations of QR funding aggregated as appropriate into cost centres (see table 1).

Where totals of QR funding are reported, these include only the monies allocated to the UoAs and exclude the business research and the national research libraries elements. Up to 2011/12 charity support funding was published by HEFCE and DELNI on the basis of allocations to UoAs. In order to maintain comparability between the QR funding up to 2011/12 and that for 2012/13 and 2013/14, the charity support funding nominally allocated to each UoA/cost centre has been calculated using the average charity income through an open competitive process with appropriate London weighting obtained in 2008/09 and 2009/10, and 2009/10 and 2010/11, respectively, and the total charity support fund for the year in question. Sections are presented for QR income distributed by HEFCE, SFC, HEFCW, and DELNI.

It should be noted that although the funding councils publish nominal allocations for individual UoAs within HEIs, the money is provided to HEIs as part of their block grant. It is for each HEI to decide how the funds they receive are allocated, although the use of the Transparent Approach to Costing (TRAC) methodologies (see section 1.3) means that HEIs are required to be transparent about how they spend their funds.

HEIs report their external research income each year to HESA on the basis of cost centres, and the income source. Until 2006/07, income was broken down into eight categories. From 2007/08, thirteen categories have been used, which are listed in table 2.

3 Much of this section is adapted from "Guide to funding and student number controls 2013-14 and 2014-15: How HEFCE allocates its funds and controls student numbers" (http://www.hefce.ac.uk/pubs/year/2014/201406/name,86698,en.html)

Table 2: External research income funding sources

External research income sources*						
Up to 2006-07	2007-08 onwards					
Research Councils	Research Councils, The Royal Society, British Academy and The Royal Society of Edinburgh					
	Non-EU-based charities (open competitive process)					
Other Overseas	Non-EU industry, commerce & public corporations					
	Non-EU other					
LIK Charities	UK-based charities (open competitive process)					
	UK-based charities (other)					
UK Public and Health Funding	UK central government bodies-local authorities, health & hospital authorities					
UK Industry and Commerce	UK industry, commerce & public corporations					
EU Government	EU government bodies					
	EU-based charities (open competitive process)					
EU Other	EU industry, commerce & public corporations					
	EU other					
Other Sources	Other sources					

* In this report, external research income is reported on the basis of the eight categories used up to 2006/07. Data on the external research income from 2007/08 to 2012/13 broken down into the thirteen categories are shown in Appendix A. A full description of the research income sources is provided in Appendix A.

1.3 Full Economic Costing

The government's 1998 Spending Review granted additional funds for higher education, but required transparent costing at institutional level. This led to the introduction of the Transparency Review, which established the TRAC methodologies.

TRAC showed that all research was under-funded when full economic costings (FEC) were calculated. The upshot was that HEIs were required to take responsibility for their own financial sustainability, particularly in respect of research infrastructure. Consequently, the former Office of Sciences and Technology (OST) distributed additional funds that rose to £200m from 2007/08. The aim of these extra funds was to ensure that a greater proportion of the cost of research was met. The funds were not to increase the volume of research being funded. The FEC methodology was fully embedded within HEIs by 2008/09. Research council projects with start dates on or after April 1st 2006 were awarded grants on a fEC basis. The research councils currently provide funding at 80% of the fEC for awarded grants; the institution receiving the funding must agree to find the balance of fEC for the project from other resources.

As noted above, the additional funds were not intended to increase research volume. In fact there was some concern that the introduction of fEC would in fact lead to a decrease in research council-funded volume.⁴ Some of the funding increases presented in section 2.1 are due to the introduction of fEC.

4 http://www.rsc.org-chemistryworld-News-2008-January-25010801.asp

2. External research income of UK higher education institutions

2.1 The total external research income of higher education institutions

External research income received by academic cost centres in UK HEIs between 2006/07 and 2012/13 is shown in Table 3 with graphical representation in Figure 1.

Table 3:	Total external	research	income o	f academic	cost cer	ntres* in	n UK HEls	2006/07	to	2012/1	3
	(Source: HESA	e)									

			External re	esearch inco	me (£000s)			ge /13	ge /13 ation**
Income Source	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	Percentage chan 2006/07 to 2012	Percentage chan 2006/07 to 2012/ adjusted for infla
Research Councils	1,169,479	1,349,331	1,522,073	1,577,421	1,545,460	1,499,324	1,527,740	31	7
UK Public & Health Funding	604,792	629,508	698,971	771,793	769,528	801,014	842,710	39	14
UK Industry & Commerce	296,233	295,826	311,833	279,691	295,189	283,871	291,798	-1	-19
UK Charities	774,055	824,446	894,767	915,356	949,439	936,765	922,301	19	-2
EU Government	261,203	278,000	323,495	374,901	428,677	506,179	593,596	127	86
EU Other	46,787	51,921	66,676	76,396	81,509	92,674	96,609	106	69
Other Overseas	201,351	216,699	255,495	287,826	290,672	323,241	376,689	87	53
Other Sources	58,653	52,354	49,946	41,536	101,368	49,447	45,464	-22	-36
Total	3,412,553	3,698,085	4,123,256	4,324,920	4,461,842	4,492,515	4,696,907	38	13

* Only income shown against academic cost centres is included. Income shown against central university services is excluded.

** A figure of 22% increase in the retail prices index (RPI) between 2006 and 2012 has been used. (Source: Bank of England)



Figure 1: Total external research income of academic cost centres* in UK HEIs 2006/07 to 2012/13 (Source: HESA research grants and contracts income)

* Only income shown against academic cost centres is included. Income shown against central university services is excluded.

Table 4: Distribution of total external research income by source in HEIs from 2006/07 to 2012/13 (Source: HESA research grants and contracts income)

		Distribution of external research income between sources							
Income Source	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	Difference in shau of research incorr between 2006/07 and 2012/13	
Research Councils	34.3%	36.5%	36.9%	36.5%	34.6%	33.4%	32.5%	-1.7%	
UK Public & Health Funding	17.7%	17.0%	17.0%	17.8%	17.2%	17.8%	17.9%	0.2%	
UK Industry & Commerce	8.7%	8.0%	7.6%	6.5%	6.6%	6.3%	6.2%	-2.5%	
UK Charities	22.7%	22.3%	21.7%	21.2%	21.3%	20.9%	19.6%	-3.0%	
EU Government	7.7%	7.5%	7.8%	8.7%	9.6%	11.3%	12.6%	5.0%	
EU Other	1.4%	1.4%	1.6%	1.8%	1.8%	2.1%	2.1%	0.7%	
Other Overseas	5.9%	5.9%	6.2%	6.7%	6.5%	7.2%	8.0%	2.1%	
Other Sources	1.7%	1.4%	1.2%	1.0%	2.3%	1.1%	1.0%	-0.8%	

2.2 The total external research income of Mathematical Sciences cost centres in HEIs

Table 5	: Total external res	earch income in t	he Mathematical	Sciences cost	t centre in UK HEIs b	y income
	source from 2006	6/07 to 2012/13 (Source: HESA res	search grants	and contracts incom	e)

		External re	search incon	ne in Mather	natical Scier	ices (£000s)		٥M	e 3 tion*
Income Source	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	Percentage chan 2006/07 to 2012/	Percentage chang 2006/07 to 2012/1 adjusted for inflat
Research Councils	33,603	41,651	47,168	50,894	52,908	55,567	53,079	58	29
UK Public & Health Funding	3,836	4,410	4,386	3,336	4,322	4,476	4,660	21	0
UK Industry & Commerce	2,306	2,684	3,317	3,256	2,368	3,317	3,424	48	22
UK Charities	2,849	3,425	3,649	5,369	3,140	3,580	3,970	39	14
EU Government	4,562	4,644	4,499	6,749	8,024	9,616	14,373	215	158
EU Other	46	318	670	513	763	1,030	1,800	3813	3107
Other Overseas	1,523	1,816	3,676	5,417	5,905	6,031	6,364	318	243
Other Sources	643	689	852	238	504	421	469	-27	-40
Total	49,368	59,637	68,217	75,772	77,934	84,038	88,139	79	46

* A figure of 22% increase in the retail prices index (RPI) between 2006 and 2012 has been used. (Source: Bank of England)

Table 6: Share of total external research income by source in the Mathematical Sciences cost centre from2006/07 to 2012/13 (Source: HESA research grants and contracts income)

	Share of external research income between sources								
Income Source	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	Difference in sha of research incorr between 2006/07 and 2012/13	
Research Councils	68.1%	69.8%	69.1%	67.2%	67.9%	66.1%	60.2%	-7.8%	
UK Public & Health Funding	7.8%	7.4%	6.4%	4.4%	5.5%	5.3%	5.3%	-2.5%	
UK Industry & Commerce	4.7%	4.5%	4.9%	4.3%	3.0%	3.9%	3.9%	-0.8%	
UK Charities	5.8%	5.7%	5.3%	7.1%	4.0%	4.3%	4.5%	-1.3%	
EU Government	9.2%	7.8%	6.6%	8.9%	10.3%	11.4%	16.3%	7.1%	
EU Other	0.1%	0.5%	1.0%	0.7%	1.0%	1.2%	2.0%	1.9%	
Other Overseas	3.1%	3.0%	5.4%	7.1%	7.6%	7.2%	7.2%	4.1%	
Other Sources	1.3%	1.2%	1.2%	0.3%	0.6%	0.5%	0.5%	-0.8%	

2.3 Comparison of the external research income of selected cost centres in HEIs

Income Course		Exter	nal research income (f	000s)	
income source	Mathematical Sciences	Physics	Electrical Engineering & CS/IT	Chemistry	Biosciences
Research Councils	53,079	201,666	133,391	107,669	208,913
UK Public & Health Funding	4,660	12,624	27,957	8,820	29,912
UK Industry & Commerce	3,424	7,404	27,627	13,771	22,924
UK Charities	3,970	6,616	8,334	15,823	194,539
EU Government	14,373	40,699	79,301	39,237	74,672
EU Other	1,800	2,569	4,205	3,730	10,027
Other Overseas	6,364	7,538	11,095	12,915	30,923
Other Sources	469	772	3,193	935	3,193
Total	88,139	279,888	295,103	202,900	575,103

 Table 7: External research income in selected cost centres by income source 2012/13 (Source: HESA research grants and contracts income)

Table 8: External research income in selected cost centres per FPE of staff with a research and teaching
employment function by income source 2012/13 (Sources: HESA research grants and contracts
income; HESA Staff Data)

	External research income per FPE of staff with a research and teaching employment function								
Income source	Mathematical Sciences	Physics	Electrical Engineering & CS/IT	Chemistry	Biosciences				
Research active academic staff (FPEs)	2319	1738	5461	1508	4764				
Research Councils	£22,889	£116,033	£24,426	£71,399	£43,852				
UK Public & Health Funding	£2,009	£7,260	£5,119	£5,849	£6,279				
UK Industry & Commerce	£1,476	£4,270	£5,059	£9,132	£4,812				
UK Charities	£1,712	£3,807	£1,526	£10,493	£40,835				
EU Government	£6,198	£23,417	£14,521	£26,019	£15,674				
EU Other	£776	£1,478	£770	£2,473	£2,105				
Other Overseas	£2,744	£4,337	£2,032	£8,564	£6,491				
Other Sources	£202	£444	£585	£620	£670				
Total	£38,007	£161,040	£54,038	£134,549	£120,719				

Table 9: External research in selected cost centres per number of category A staff submitted to the RAE2008 by income source 2012/13 (Sources: HESA research grants and contracts income)

	External research income per category A staff returned to the RAE2008								
income source	Mathematical Sciences	Physics	Electrical Engineering & CS/IT	Chemistry	Biosciences				
Category A staff	1924*	1686	2680**	1151	2354				
Research Councils	£27,588	£119,612	£49,773	£93,544	£88,748				
UK Public & Health Funding	£2,422	£7,488	£10,432	£7,663	£12,707				
UK Industry & Commerce	£1,780	£4,391	£10,309	£11,964	£9,738				
UK Charities	£2,063	£3,924	£3,110	£13,747	£82,642				
EU Government	£7,470	£24,139	£29,590	£34,089	£31,721				
EU Other	£936	£1,524	£1,569	£3,241	£4,260				
Other Overseas	£3,308	£4,471	£4,140	£11,221	£13,136				
Other Sources	£244	£458	£1,191	£812	£1,356				
Total	£45,810	£166,007	£110,113	£176,281	£244,309				

* Mathematical Sciences Category A staff are calculated by summing the totals submitted to the Applied Mathematics, Pure Mathematics, and Statistics and Operational Research units of assessment.

** Electrical Engineering & CS/IT Category A staff are the sum of those FTEs submitted to the Electrical and Electronic Engineering and Computer Sciences and Informatics units of assessment.

Table 10: Share of total external research income by source in selected cost centres 2012/13 (Source: HESA research grants and contracts income)

	Share of external research income between sources											
Income source	Mathematical Sciences	Physics	Electrical Engineering & CS/IT	Chemistry	Biosciences							
Research Councils	60.2%	72.1%	45.2%	53.1%	36.3%							
UK Public & Health Funding	5.3%	4.5%	10.1%	4.3%	5.2%							
UK Industry & Commerce	3.9%	2.6%	12.2%	6.8%	4.0%							
UK Charities	4.5%	2.4%	3.3%	7.8%	33.8%							
EU Government	16.3%	14.5%	23.3%	19.3%	13.0%							
EU Other	2.0%	0.9%	1.5%	1.8%	1.7%							
Other Overseas	7.2%	2.7%	3.3%	6.4%	5.4%							
Other Sources	0.5%	0.3%	1.0%	0.5%	0.6%							

Table 11: The proportion of total external research income from research councils by cost centre 2012/13 (Source: HESA research grants and contracts income)

Cost Centre	Proportion of external income from Research Councils
Physics	72.1%
Mathematical Sciences	60.2%
English Language & Literature	58.1%
Music, Dance, Drama & Performing Arts	54.2%
Chemistry	53.1%
Media Studies	51.8%
Modern Languages	49.9%
Earth Marine & Environmental Sciences	47.9%
Sociology	47.7%
Geography & Environmental Studies	46.7%
Veterinary Science	46.7%
Electrical Engineering & CS/IT	45.2%
Chemical Engineering	44.4%
Theology & Religious Studies	43.3%
Area Studies	42.6%
History	42.4%
Civil Engineering	41.7%
Classics	40.8%
Economics & Econometrics	39.6%
Mineral Metallurgy & Materials Engineering	39.6%
Architecture Built Environment & Planning	39.1%
Art & Design	37.8%
Psychology & Behavioural Sciences	37.1%
Biosciences	36.3%
Law	33.0%
General Engineering	32.5%
Philosophy	32.3%
Anatomy & Physiology	30.2%
Anthropology & Development Studies	29.5%
Pharmacy & Pharmacology	28.7%
Business & Management Studies	28.1%
General Education Expenditure	26.3%
Mechanical Aero & Production Engineering	25.3%
Archaeology	24.3%
Politics & International Studies	24.2%
Education	22.7%
Social Work & Social Policy	20.2%
Clinical Dentistry	20.0%
Sports Science and Leisure Studies	18.2%
Clinical Medicine	16.9%
Agriculture, Forestry & Food Science	13.7%
Health & Community Studies	11.4%
Catering & Hospitality Management	7.4%
Nursing & Allied Health Professions	7.2%
Continuing Education	6.8%
Overall	32.6%





Permanent Academic staff

3. Quality-related research income of UK higher education institutions

 Table 12: Number of institutions receiving quality-related income in selected cost centres in the UK 2009/10 to 2013/14 (Source: HEFCE, SFC, HEFCW and DELNI)

Cost Contro		Number of institutions receiving HEFCE QR income										
Cost Centre	2009/10	2010/11	2011/12	2011/12	2013/14							
Mathematical Sciences	44	44	44	44	44							
Physics	41	41	41	42	41							
Electrical Engineering & CS/IT	81	81	80	80	80							
Chemistry	33	33	33	34	34							
Biosciences	48	48	46	46	46							

Note: From 2009/10 onwards the number of cost centres receiving QR funding was based on the number of submissions to the RAE2008.

3.1 Quality-related income of English higher education institutions

Table 13 presents data on the QR income allocated to selected cost centres by HEFCE from 2006/07 to 2013/14 and Table 14 shows the same per FTE of category A and A* staff submitted to the RAE2001 or RAE2008 as appropriate.

 Table 13: Quality-related research income* in selected cost centres in England 2006/07 to 2013/14 (Source: HEFCE)

			н	EFCE QR in	come(£000	s)			9 4	e 14 tion**
Cost Centre	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13**	2013/14**	Percentage chang 2006/07 to 2013/1	Percentage chang 2006/07 to 2013/1 adjusted for inflat
Mathematical Sciences	51,395	52,149	51,332	55,926	57,361	55,106	55,763	55,999	9.0	-13.5
Physics	59,499	59,839	59,892	62,299	63,821	61,364	62,017	61,634	3.6	-17.8
Electrical Engineering & CS/IT	75,903	71,591	74,123	86,221	88,347	85,620	88,004	88,107	16.1	-7.9
Chemistry	51,741	48,472	51,779	49,604	50,022	48,148	49,627	49,507	-4.3	-24.1
Biosciences	101,237	103,383	103,596	112,333	113,126	109,970	118,754	119,972	18.5	-5.9
All Cost Centres (£M)	1,338	1,341	1,378	1,515	1,533	1,488	1,488	1,488	11.2	-11.8

* Data include London Weighting. Values of the QR charity funding contributions for 2012/13 and 2013/14 have been calculated using the same protocol used by HEFCE using HESA data on external charity funding and also the total size of the charity fund. The business research element has not been included in any of the figures.

** A figure of 26% increase in the retail prices index (RPI) between 2006 and 2013 has been used. (Source: Bank of England)

Note: For 2006/07 to 2008/09 HEFCE QR funding was calculated using the results of the RAE2001. From 2009/10 onwards HEFCE QR funding was calculated using the results of the RAE2008.

	UI RAE2		QR income per RAE2001 Category A and A* staff FTE (£)				QR inco Catego		ge 14	ge 114 ation***		
Cost Centre	Category A and RAE2001 (FTE)	2006/07	2007/08	2008/09	Category A staff RAE2008 (FTE)	2009/10	2010/11	2011/12	2012/13	2013/14	Percentage chan 2006/07 to 2013/	Percentage chan 2006/07 to 2013/ adjusted for infla
Mathematical Sciences	1361	37,763	38,317	37,716	1603	34,888	35,784	34,377	34,787	34,934	-7.5	-26.6
Physics	1339	44,435	44,690	44,729	1363	45,708	46,824	45,022	45,500	45,220	1.8	-19.2
Electrical Engineering & CS/IT	1834	41,387	39,035	40,416	2065	41,754	42,783	41,463	42,617	42,667	3.1	-18.2
Chemistry	1025	50,479	47,290	50,516	910	54,510	54,970	52,910	54,535	54,404	7.8	-14.5
Biosciences	1842	54,960	56,125	56,241	1870	60,071	60,495	58,807	63,505	64,156	16.7	-7.4
All Cost Centres	38,713	34,570	34,645	35,593	41,991	36,068	36,500	35,433	35,433	35,433	2.5	-18.7

 Table 14: Quality-related research income* in selected cost centres per FTE of category A staff submitted** to the RAE2001 or RAE2008 in England 2009/10 to 2013/14 (Source: HEFCE)

* Data include London Weighting. Values of the QR charity funding contributions for 2012/13 and 2013/14 have been calculated using the same protocol used by HEFCE using HESA data on external charity funding and also the total size of the charity fund. The business research element has not been included in any of the figures.

** The FTE of category A/A* staff used is the staff submitted to the RAE2001 and RAE2008, respectively.

*** A figure of 26% increase in the retail prices index (RPI) between 2006 and 2013 has been used. (Source: Bank of England)

		Share of HEFCE QR research income														
Cost Centre	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Change in share between 1999/00 and 2013/14
Mathematical Sciences	3.58%	3.50%	3.62%	3.53%	3.56%	3.71%	3.87%	3.84%	3.89%	3.73%	3.69%	3.74%	3.70%	3.75%	3.76%	0.19%
Physics	4.37%	4.22%	4.18%	4.15%	4.37%	4.41%	4.48%	4.45%	4.46%	4.35%	4.11%	4.16%	4.12%	4.17%	4.14%	-0.23%
Electrical Engineering & CS/IT	6.55%	6.40%	6.27%	5.98%	5.81%	5.88%	5.75%	5.67%	5.34%	5.38%	5.69%	5.76%	5.75%	5.91%	5.92%	-0.63%
Chemistry	4.42%	4.30%	4.30%	4.48%	4.36%	4.34%	4.01%	3.87%	3.61%	3.76%	3.28%	3.26%	3.24%	3.34%	3.33%	-1.09%
Biosciences	8.02%	8.23%	8.11%	7.67%	7.87%	7.80%	7.52%	7.56%	7.71%	7.52%	7.42%	7.38%	7.39%	7.98%	8.06%	0.05%

Table 15: Share of quality-related research income* for selected cost centres in England 1999/00 to 2013/14 (Source: HEFCE)

* Data include London Weighting. Values of the QR charity funding contributions for 2012/13 and 2013/14 have been calculated using the same protocol used by HEFCE using HESA data on external charity funding and also the total size of the charity fund. The business research element has not been included in any of the figures.

Note: For 1999/00 HEFCE QR funding was calculated using the results of the RAE1996. For 2002/03 to 2008/09 HEFCE QR funding was calculated using the results of the RAE2001. From 2011/12 and 2013/14 HEFCE QR funding was calculated using the results of the RAE2008.



Figure 3: Ratio of quality-related income* in a given year compared with that in 1999/00 for selected cost centres in England 1999/00 to 2013/14 (Source: HEFCE)

* Data include London Weighting. Values of the QR charity funding contributions for 2012/13 and 2013/14 have been calculated using the same protocol used by HEFCE using HESA data on external charity funding and also the total size of the charity fund. The business research element has not been included in any of the figures.

Figure 4: Ratio of quality-related income* adjusted for inflation** in a given year compared with that in 1999/00 for selected cost centres in England 1999/00 to 2013/14 (Source: HEFCE)



1999/00 2000/01 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09 2009/10 2010/11 2011/12 2012/13 2013/14

- * Data include London Weighting. Values of the QR charity funding contributions for 2012/13 and 2013/14 have been calculated using the same protocol used by HEFCE using HESA data on external charity funding and also the total size of the charity fund. The business research element has not been included in any of the figures.
- ** The following average annual increases in the retail prices index (RPI) between 2000 and 2013 have been used: 2000: 2.9%; 2001: 1.7%; 2002: 1.6%; 2003: 2.8%; 2004: 2.9%; 2005: 2.8%; 2006: 3.1%; 2007: 4.2%; 2008: 3.9%; 2009: -0.5%; 2010: 4.6%; 2011: 5.2%; 2012: 3.2%; 2013: 3.1 (Source: Bank of England)

3.2 Quality-related and research excellence grant income of Scottish higher education institutions

Table 16 presents data on the QR and Research Excellence Grant (REG) income allocated to selected cost centres by the Scottish Funding Council from 2006/07 to 2013/14 and table 17 shows the same per FTE of category A and A* staff submitted to the RAE2001 or RAE2008 as appropriate.

Table 16: SFC QR and REG income in selected cost centres in Scotland 2006/07 to 2013/14 (Source: SFC)

			SFC	QR and REG	income (£	000s)			4	4 **
Cost Centre	2006/07*	2007/08*	2008/09*	2009/10+	2010/11+	2011/12+	2012/13+	2013/14+	Percentage change 2006/07 and 2013/1	Percentage change 2006/07 and 2013/1 adjusted for inflatic
Mathematical Sciences	7,044	7,319	7,702	6,020	5,820	5,816	5,973	6,619	-6.0	-25.4
Physics	8,766	9,125	9,561	10,679	10,215	10,231	10,451	11,288	28.8	2.2
Electrical Engineering & CS/IT	14,612	15,196	15,920	18,367	18,705	18,859	18,376	20,173	38.1	9.6
Chemistry	6,584	6,907	7,205	9,639	9,114	9,187	10,109	10,965	66.5	32.2
Biosciences	20,409	22,891	24,026	21,933	23,805	23,820	25,632	27,252	33.5	6.0
All Cost Centres	175,743	188,673	197,543	208,354	213,027	213,027	223,027	242,497	38.0	9.5

* Quality-related income

+ Research Excellence Grant income

** A figure of 26% increase in the retail prices index (RPI) between 2006 and 2013 has been used. (Source: Bank of England)

Note: For 2006/07 to 2008/09 SFC QR funding was calculated using the results of the RAE2001. From 2009/10 onwards SFC REG funding was calculated using the results of the RAE2008.



Figure 5: Distribution of SFC QR and REG income by selected cost centres in Scotland 2001/02 to 2013/14 (Source: SFC)

 Table 17: SFC QR and REG income in selected cost centres per FTE of category A staff submitted to the RAE2001 or RAE2008 in Scotland 2006/07 to 2013/14 (Source: SFC)

	Upped State QR income per RAE2001 Category A * and A* staff FTE (£)						REG inco Catego		ge 3/14	ge 3/14 ition***		
Cost Centre	Category A and RAE2001 (FTE)	2006/07*	2007/08*	2008/09*	Category A staff RAE2008 (FTE)	2009/10+	2010/11+	2011/12+	2012/13+	2013/14+	Percentage chang 2006/07 and 201	Percentage chang 2006/07 and 2011 adjusted for infla
Mathematical Sciences	216	32,611	33,884	35,657	249	24,165	23,360	23,344	23,973	26,565	-18.5	-35.3
Physics	216	40,582	42,247	44,266	193	55,238	52,841	52,924	54,060	58,392	43.9	14.2
Electrical Engineering & CS/IT	372	39,279	40,849	42,795	388	47,388	48,259	48,655	47,409	52,046	32.5	5.2
Chemistry	177	37,198	39,022	40,708	159	60,513	57,219	57,677	63,466	68,839	85.1	46.9
Biosciences	394	51,800	58,100	60,980	359	61,161	66,380	66,423	71,476	75,994	46.7	16.4
All Cost Centres	5804	30,280	32,507	34,036	6575	31,689	32,400	32,400	33,920	36,882	21.8	-3.3

* Quality-related income

+ Research Excellence Grant income

** The FTE category A/A* staff used is the FTE staff submitted to the RAE2001 and RAE2008, respectively.

*** A figure of 26% increase in the retail prices index (RPI) between 2006 and 2013 has been used. (Source: Bank of England)

Note: For 2006/07 to 2008/09 SFC QR funding was calculated using the results of the RAE2001. From 2009/10 onwards SFC REG funding was calculated using the results of the RAE2008.









+ Mathematical Sciences + Physics + Electrical Engineering & CS/IT + Chemistry + Biosciences + Total QR/REG

The following annual increases in the retail prices index (RPI) between 2001 and 2013 have been used:
 2001: 1.7%; 2002: 1.6%; 2003: 2.8%; 2004: 2.9%; 2005: 2.8%; 2006: 3.1%; 2007: 4.2%; 2008:
 3.9%; 2009: -0.5%; 2010: 4.6%; 2011: 5.2%; 2012: 3.2%; 2013: 3.1. (Source: Bank of England)

3.3 Quality-related income of Welsh higher education institutions

Table 18 presents data on the QR income allocated by HEFCW to selected cost centres in Wales from 2006/07 to 2013/14 and Table 19 shows the same per FTE of category A and A* staff submitted to the RAE2001 or RAE2008 as appropriate.

			HEFCW	Quality-rela	ited income	e (£000s)			ige /14	ige /14 ation*
Cost Centre	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Percentage chan 2006/07 to 2013	Percentage chan 2006/07 to 2013 adjusted for infl
Mathematical Sciences	1,088	1,106	1,123	1,088	1,087	862	862	863	-20.7	-37.1
Physics	1,938	2,018	2,082	1,800	1,761	1,520	1,494	1,468	-24.2	-39.9
Electrical Engineering & CS/IT	5,349	5,644	5,818	5,119	5,052	5,060	5,137	5,097	-4.7	-24.4
Chemistry	1,779	1,859	1,876	2,148	2,088	1,976	1,991	1,961	10.2	-12.5
Biosciences	4,361	3,835	-12.1	-30.2						
All Cost Centres	60,890	71,077	16.7	-7.4						

 Table 18: QR research income in selected cost centres in Wales 2006/07 to 2013/14 (Source: HEFCW)

* A figure of 26% increase in the retail prices index (RPI) between 2006 and 2013 has been used. (Source: Bank of England)

Note: For 2006/07 to 2008/09 HEFCW QR funding was calculated using the results of the RAE2001. From 2009/10 onwards HEFCW QR funding was calculated using the results of the RAE2008.

	A* staff	QR income per RAE2001 Category A and A* staff FTE (£)					QR inco Catego		ige /14	ige /14 ation*		
Cost Centre	Category A and RAE2001 (FTE)	2006/07	2007/08	2008/09	Category A stafi RAE2008 (FTE)	2009/10	2010/11	2011/12	2012/13	2013/14	Percentage chan 2006/07 to 2013	Percentage chan 2006/07 to 2013 adjusted for infl
Mathematical Sciences	44	24,625	25,016	25,401	63	17,205	17,186	13,635	13,629	13,643	-44.6	-56.0
Physics	50	38,763	40,381	41,651	71	25,217	24,670	21,301	20,934	20,571	-46.9	-57.9
Electrical Engineering & CS/IT	131	39,224	40,731	42,977	134	44,300	38,331	37,830	37,890	38,469	-3.6	-23.5
Chemistry	70	25,488	26,638	26,872	49	44,217	42,989	40,693	41,002	40,381	58.4	29.9
Biosciences	152	28,669	34,210	36,011	90	51,298	48,562	42,263	41,864	42,397	47.9	17.4
All Cost Centres	2282	26,680	28,705	29,494	2578	28,882	28,665	27,569	27,569	27,569	3.3	-18.0

 Table 19: QR research income in selected cost centres per FTE of category A staff submitted** to the 2001RAE or 2008RAE in Wales 2006/07 to 2013/14 (Source: HEFCW)

* A figure of 26% increase in the retail prices index (RPI) between 2006 and 2013 has been used. (Source: Bank of England)

** The FTE category A/A* staff used is the FTE staff submitted to the RAE2001 and RAE2008, respectively.



Figure 8: Share of QR income for selected cost centres in Wales 2003/04 to 2013/14 (Source: HEFCW)





Figure 10: Ratio of QR income adjusted for inflation* in a given year compared with that in 2003/04 for selected cost centres in Wales 2003/04 to 2013/14 (Source: HEFCW)



- Mathematical Sciences - Physics - Electrical Engineering & CS/IT - Chemistry - Biosciences - Total QR/REG

* The following annual increases in the retail prices index (RPI) between 2004 and 2012 have been used: 2004: 2.9%; 2005: 2.8%; 2006: 3.1%; 2007: 4.2%; 2008: 3.9%; 2009: -0.5%; 2010: 4.6%; 2011: 5.2%; 2012: 3.2%; 2013: 3.1%. (Source: Bank of England)

3.4 Quality-related income of Northern Irish higher education institutions

Table 20 presents data on the QR income allocated by DELNI to selected cost centres in Northern Ireland from 2007/08 to 2012/13 and Table 21 shows the same per FTE of category A and A* staff submitted to the RAE2001 or RAE2008 as appropriate.

Table 20: QR research income* in selected cost centres in Northern Ireland 2007/08 to 2012/13 (Source: DELNI)

			DELNI Qualit	ty-related ind	:ome (£000s)				*** uc
Cost Centre	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13**	2013/14**	Percentage change 2007/08 to 2012/13	Percentage change 2007/08 to 2012/13 adjusted for inflatio
Mathematical Sciences	192	198	235	218	212	411	405	111.1	73.0
Physics	3,192	3,354	2,184	2,235	2,196	1,985	1,954	-38.8	-49.8
Electrical Engineering & CS/IT	4,361	4,409	4,517	4,694	4,676	4,625	4,633	6.2	-12.9
Chemistry	1,552	1,519	1,636	1,648	1,652	1,533	1,471	-5.2	-22.3
Biosciences	1,666	1,725	1,493	1,491	1,399	1,429	1,436	-13.8	-29.4
All Cost Centres	46,726	49,485	51,925	56,994	50,731	48,690	48,690	4.2	-14.6

* Values of the QR charity funding contribution for 2012/13 and 2013/14 have been calculated using the same protocol used by HEFCE using HESA data on external charity funding and the total size of the charity fund.

** In 2012/13 and 2013/14 DELNI introduced a fund of £5,875,000 for the best research departments, the so-called Quality Pot. The mathematics department at Queen's University Belfast benefitted from this funding which is why there is a significant increase in the funding for Mathematical Sciences between 2011/12 and 2012/13.

*** A figure of 22% increase in the retail prices index (RPI) between 2007 and 2013 has been used. (Source: Bank of England)

Note: For 2007/08 and 2008/09 DELNI QR funding was calculated using the results of the RAE2001. From 2009/10 onwards DELNI QR funding was calculated using the results of the RAE2008.

 Table 21: DELNI QR research income* in selected cost centres per number of category A staff submitted** to the RAE2001 or RAE2008 in Northern Ireland 2007/08 to 2013/14 (Source: DELNI)

	l A* staff	QR inco RAE2 Categor A* staff	ome per 2001 y A and FTE (£)	ff RAE2008		QR inco Catego	ome per R Pry A staff	4E2008 FTE (£)		nge 2/13	nge 2/13 flation****
Cost Centre	Category A anc RAE2001 (FTE)	2007/08	2008/09	Category A sta (FTE)	2009/10	2010/11	2011/12	2012/13***	2013/14***	Percentage cha 2007/08 to 201	Percentage cha 2007/08 to 2013 adjusted for inf
Mathematical Sciences	9	21,339	22,017	8	29,420	27,284	26,551	51,394	50,676	137.5	97.4
Physics	63	50,668	53,231	58	37,658	38,539	37,862	34,219	33,694	-33.5	-44.6
Electrical Engineering & CS/IT	27	50,707	51,271	32	48,057	49,937	49,740	49,198	49,285	-2.8	-20.5
Chemistry	28	55,442	54,266	33	49,574	49,925	50,061	46,456	44,586	-19.6	-31.3
Biosciences	29	57,458	59,491	35	42,663	42,604	39,968	40,827	41,033	-28.6	-41.8
All Cost Centres	1221	38,269	40,528	1265	41,047	45,055	40,103	38,490	38,490	0.6	-17.6

* Values of the QR charity funding contribution for 2012/13 and 2013/14 have been calculated using the same protocol used by HEFCE using HESA data on external charity funding and the total size of the charity fund.

** The FTE category A/A* staff used is the FTE staff submitted to the RAE2001 and RAE2008, respectively.

*** In 2012/13 and 2013/14 DELNI introduced a fund of £5,875,000 for the best research departments, the so-called Quality Pot. The mathematics department at Queen's University Belfast benefitted from this funding which is why there is a significant increase in the funding for Mathematical Sciences between 2011/12 and 2012/13.

**** A figure of 22% increase in the retail prices index (RPI) between 2007 and 2013 has been used. (Source: Bank of England)

Figure 11: Distribution of DELNI QR income for selected cost centres in Northern Ireland 2007/08 to 2013/14 (Source: DELNI)





Figure 12: Ratio of DELNI quality-related income in a given year compared with that in 2007/08 for selected cost centres in Northern Ireland 2007/08 to 2013/14 (Source: DELNI)

Figure 13: Ratio of DELNI quality-related income adjusted for inflation* in a given year compared with that in 2007/08 for selected cost centres in Northern Ireland 2007/08 to 2012/13 (Source: DELNI)



* The following annual increases in the retail prices index (RPI) between 2007 and 2012 have been used: 2008: 3.9%; 2009: -0.5%; 2010: 4.6%; 2011: 5.2%; 2012: 3.2%; 2013: 3.1. (Source: Bank of England)

4. Total research income of UK higher education institutions

Table 22 presents the total QR and external research income for all cost centres, for Mathematical Sciences and for STEM cost centres between 2006/07 and 2012/13 together with the external research income from public sources (the research councils and UK public and health funding), the total research income, and the total research income from UK public sources. Table 22 also presents, in parentheses, the income per FTE category A and A* staff. Table 23 shows the proportions of external and QR research income and the proportion of research income from UK public sources for all cost centres, for the Mathematical Sciences cost centre, and for the STEM cost centres. Figure 14 and Figure 15 present the data in Table 22 graphically.

Table 22: Comparison of external research income and quality related income for all cost centres,
the Mathematical Sciences cost centre and STEM cost centres 2006/07 to 2012/13
(Sources: HESA research grants and contracts income, HEFCE, SFC, HEFCW and DELNI)

Income Source and Cost Centres	Income (£M) (Income per FTE of Category A and A* staff submitted to the 2001RAE [2006/07 and 2007/08] or Income per FTE of Category A staff submitted to the 2008RAE [2008/09 onwards] (£000))								: change 2012/13 or inflation*
	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	Percentag 2006/07 tc	Percentage 2006/07 to adjusted fo
All cost centres: external research income (A)	3,413 (71.1)	3,698 (77.0)	4,123 (85.9)	4,325 (82.5)	4,462 (85.1)	4,493 (85.7)	4,697 (89.6)	37.6	12.8
All cost centres: external research income from UK public sources (B)	1,774 (36.9)	1,979 (41.2)	2,221 (46.3)	2,349 (44.8)	2,315 (44.2)	2,300 (43.9)	2,370 (45.2)	33.6	9.5
All cost centres: quality-related income (C)	1,616 (33.6)	1,642 (34.2)	1,692 (35.2)	1,849 (35.3)	1,877 (35.8)	1,823 (34.8)	1,831 (34.9)	13.3	-7.1
All cost centres: research income from UK public funds (B + C)	3,390 (70.6)	3,621 (75.4)	3,913 (81.5)	4,198 (80.1)	4,192 (80.0)	4,123 (78.7)	4,201 (80.2)	23.9	1.6
All cost centres: total research income (A + C)	5,028 (104.7)	5,340 (111.2)	5,816 (121.1)	6,174 (117.8)	6,338 (120.9)	6,315 (120.5)	6,528 (124.6)	29.8	6.4
Mathematical Sciences cost centre: external research Income (D)	49 (30.3)	60 (36.6)	68 (41.9)	76 (39.4)	78 (40.5)	84 (43.7)	88 (45.8)	78.5	46.3
Mathematical Sciences: external research income from UK public sources (E)	37 (23.0)	46 (28.3)	52 (31.6)	54 (28.2)	57 (29.7)	60 (31.2)	58 (30.0)	54.2	26.4
Mathematical Sciences cost centre: quality-related income (F)**	60 (36.5)	61 (37.3)	60 (37.0)	63 (32.9)	64 (33.5)	62 (32.2)	63 (32.7)	5.8	-13.2
Mathematical Sciences cost centre: research income from UK public funds (E + F)*	97 (59.5)	107 (65.5)	112 (68.7)	118 (61.1)	122 (63.3)	122 (63.4)	121 (62.8)	24.5	2.1
Mathematical Sciences cost centre: total research income (D + F)**	109 (66.8)	120 (73.9)	129 (78.9)	139 (72.3)	142 (74.0)	146 (75.9)	151 (78.6)	38.8	13.8
STEM cost centres: external research Income (G)	2,980 (115.2)	3,302 (127.7)	3,704 (143.3)	3,896 (132.1)	4,039 (136.9)	4,084 (138.5)	4,282 (145.2)	43.7	17.8
STEM cost centres: external research income from UK public sources (H)	1,494 (57.8)	1,720 (66.5)	1,946 (75.3)	2,080 (70.5)	2,060 (69.9)	2,069 (70.2)	2,148 (72.8)	43.8	17.8
STEM: quality-related income (I)*	1,064 (41.1)	1,105 (42.8)	1,155 (44.7)	1,106 (37.5)	1,124 (38.1)	1,102 (37.4)	1,185 (40.2)	11.5	-8.6
STEM cost centres: research income from UK public funds (H + I)*	2,558 (98.9)	2,826 (109.3)	3,102 (120.0)	3,187 (108.1)	3,184 (108.0)	3,171 (107.5)	3,334 (113.0)	30.3	6.8
STEM cost centres: total research income (G + I)*	4,043 (156.4)	4,407 (170.5)	4,860 (187.9)	5,003 (169.6)	5,162 (175.0)	5,186 (175.9)	5,468 (185.4)	35.2	10.9

* A figure of 22% increase in the retail prices index (RPI) between 2006 and 2012 has been used. (Source: Bank of England)

** Northern Irish QR income is only included in the Mathematical Sciences and STEM data for 2007/08 onwards.

Note: External research income from UK public sources is the sum of external research income from the research councils and from UK public and health funding.

 Table 23: Proportion of research income accounted for by external research income, quality related income and publically funded research income for all cost centres, the Mathematical Sciences cost centre* and STEM cost centres* from 2006/07 to 2012/13 (Sources: HESA research grants and contracts income, HEFCE, SFC, HEFCW and DELNI)

		Share of research income								
Income Source and Cost Centres	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13			
All cost centres: external research income	68%	69%	71%	70%	70%	71%	72%			
All cost centres: quality-related income	32%	31%	29%	30%	30%	29%	28%			
All cost centres: UK publically funded research	67%	68%	67%	68%	66%	65%	64%			
Mathematical Sciences cost centre: external research Income	45%	50%	53%	54%	55%	58%	58%			
Mathematical Sciences cost centre: quality-related income*	55%	50%	47%	46%	45%	42%	42%			
Mathematical Sciences cost centre: UK publically funded research*	89%	89%	87%	85%	85%	84%	80%			
STEM cost centres: external research Income	74%	75%	76%	78%	78%	79%	78%			
STEM cost centres: quality-related income*	26%	25%	24%	22%	22%	21%	22%			
STEM cost centres: UK publically funded research*	63%	64%	64%	64%	62%	61%	61%			

* Northern Irish QR income is only included in the Mathematical Sciences and STEM data for 2007/08 onwards.

Figure 14: Proportions of external and QR research income in the UK for: all cost centres; the Mathematical Sciences cost centre* and STEM cost centres* 2006/07 to 2012/13 (Sources: HESA research grants and contracts income, HEFCE, SFC, HEFCW and DELNI)*



* Northern Irish QR income is only included in the Mathematical Sciences and STEM data for 2007/08 onwards.

Figure 15: Proportions of research income funded from public sources in the UK* for the Mathematical Sciences cost centre, for STEM cost centres and for all cost centres 2006/07 to 2012/13 (Sources: HESA research grants and contracts income, HEFCE, SFC, HEFCW and DELNI)



* Northern Irish QR income is only included in the Mathematical Sciences and STEM data for 2007/08 onwards.

Table 24: Comparison of income from research councils, quality-related income, research income from
other sources and total research income for: all cost centres; the Mathematical Sciences;
physics; chemistry and biological sciences cost centres from 2006/07 to 2012/13
(Sources: HESA research grants and contracts income, HEFCE, SFC, HEFCW and DELNI)

		0 C	e 3 iion*						
Income Source and Cost Centres	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	Percentage chang 2006/07 to 2011/	Percentage chang 2006/07 to 2012/1 adjusted for inflat
All cost centres: income from research councils	£1,169	£1,349	£1,522	£1,577	£1,545	£1,499	£1,528	30.6	5.1
All cost centres: quality-related income	£1,616	£1,642	£1,692	£1,849	£1,877	£1,823	£1,831	13.3	-7.5
All cost centres: other research income	£2,243	£2,349	£2,601	£2,747	£2,916	£2,993	£3,169	41.3	9.4
All cost centres: total research income	£5,028	£5,340	£5,816	£6,174	£6,338	£6,315	£6,528	29.8	2.9
Mathematical Sciences: income from research councils	£34	£42	£47	£51	£53	£56	£53	58.0	35.5
Mathematical Sciences: share of all cost centres' total income from research councils	2.9%	3.1%	3.1%	3.2%	3.4%	3.7%	3.5%		
Mathematical Sciences: quality-related income**	£60	£61	£60	£63	£64	£62	£63	5.8	-14.6
Mathematical Sciences: share of all cost centres' quality-related income**	3.7%	3.7%	3.6%	3.4%	3.4%	3.4%	3.4%		
Mathematical Sciences: other research income	£16	£18	£21	£25	£25	£28	£35	122.4	48.0
Mathematical Sciences: share of all cost centres' other research income	0.70%	0.77%	0.81%	0.91%	0.86%	0.95%	1.11%		
Mathematical Sciences: total research income	£109	£120	£129	£139	£142	£146	£151	38.8	9.9
Mathematical Sciences: share of all cost centres' total research income	2.2%	2.3%	2.2%	2.3%	2.2%	2.3%	2.3%		
Physics: income from research councils	£159	£189	£211	£221	£210	£197	£202	27.2	2.1
Physics: share of all cost centres' total income from research councils	13.6%	14.0%	13.9%	14.0%	13.6%	13.2%	13.2%		
Physics: quality-related income**	£70	£74	£75	£77	£78	£75	£76	8.2	-12.1
Physics: share of all cost centres' quality-related income**	6.0%	5.5%	4.9%	4.9%	5.0%	5.0%	5.0%		

Table 24 (continued)

Physics: other research income	£49	£48	£58	£56	£66	£70.44	£78	61.1	18.9
Physics: share of all cost centres' other research income	3.0%	2.9%	3.4%	3.0%	3.5%	3.9%	4.3%		
Physics: total research income	£277	£311	£344	£354	£354	£343	£356	28.3	1.4
Physics: share of all cost centres' total research income	5.5%	5.8%	5.9%	5.7%	5.6%	5.4%	5.5%		
Chemistry: income from research councils	£92	£107	£113	£108	£104	£100	£108	16.6	-11.5
Chemistry: share of all cost centres' total income from research councils	7.9%	8.0%	7.4%	6.8%	6.7%	6.7%	7.0%		
Chemistry: quality-related income**	£60	£59	£62	£63	£63	£61	£63	5.3	-16.9
Chemistry: share of all cost centres' quality-related income**	5.1%	4.4%	4.1%	4.0%	4.1%	4.1%	4.1%		
Chemistry: other research income	£60	£60	£64	£68	£76	£81	£95	59.6	10.8
Chemistry: share of all cost centres' other research income	3.7%	3.6%	3.8%	3.7%	4.0%	4.4%	5.2%		
Chemistry: total research income	£120	£119	£127	£131	£139	£142	£159	32.4	-3.1
Chemistry: share of all cost centres' total research income	2.4%	2.2%	2.2%	2.1%	2.2%	2.2%	2.4%		
Biosciences: income from research councils	£175	£195	£225	£227	£219	£206	£209	19.4	-3.6
Biosciences: share of all cost centres' total income from research councils	15.0%	14.4%	14.8%	14.4%	14.2%	13.7%	13.7%		
Biosciences: quality-related income**	£126	£133	£135	£140	£143	£139	£149	18.2	-9.6
Biosciences: share of all cost centres' quality-related income**	10.8%	9.9%	8.9%	8.9%	9.2%	9.3%	9.7%		
Biosciences: other research income	£280	£287	£320	£352	£351	£358	£366	30.9	4.8
Biosciences: share of all cost centres' other research income	17.3%	17.5%	18.9%	19.1%	18.7%	19.6%	20.0%		
Biosciences: total research income	£406	£420	£455	£493	£494	£497	£515	27.0	0.3
Biosciences: share of all cost centres' total research income	8.1%	7.9%	7.8%	8.0%	7.8%	7.9%	7.9%		

* A figure of 22% increase in the retail prices index (RPI) between 2006 and 2012 has been used. (Source: Bank of England)

** Research excellence grant income in Scotland are included. Northern Irish QR income is only included in the Mathematical Sciences, physics, chemistry and biological sciences data for 2007/08 onwards.

Appendix A: External research income in detail 2007/08 to 2012/13

Table 25: External research income for all academic cost centres* from 2007/08 to 2012/13 (Source: HESA research grants and contracts income)

	External research income (£000s)									
Income Source	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13				
BIS Research Councils, The Royal Society, British Academy and The Royal Society of Edinburgh	1,349,331	1,522,073	1,577,421	1,545,460	1,499,324	1,527,740				
UK central government bodies, local authorities, health & hospital authorities	629,508	698,971	771,793	769,528	801,014	842,710				
UK industry, commerce & public corporations	295,826	311,833	279,691	295,189	283,871	291,798				
UK-based charities (open competitive process)	706,447	770,512	820,985	827,897	854,980	881,531				
UK-based charities (other)	117,999	124,255	94,371	121,542	81,785	40,770				
EU government bodies	278,000	323,495	374,901	428,677	506,179	593,596				
EU industry, commerce & public corporations	28,435	37,117	45,056	45,384	53,165	56,077				
EU-based charities (open competitive process)	5,598	6,657	7,669	8,647	10,629	9,759				
EU other	17,888	22,902	23,671	27,478	28,880	30,773				
Non-EU industry, commerce & public corporations	83,345	88,839	97,901	102,988	123,880	138,575				
Non-EU-based charities (open competitive process)	58,542	86,917	97,309	93,021	95,670	101,331				
Non-EU other	74,812	79,739	92,616	94,663	103,691	136,783				
Other sources	52,354	49,946	41,536	101,368	49,447	45,464				
Total	3,698,085	4,123,256	4,324,920	4,461,842	4,492,515	4,696,907				

* Only income shown against academic cost centres is included. Income shown against central university services is excluded.

Table 26: External research income for selected cost centres 2012/13 (Source: HESA research grants and contracts income)

		External research income (£000s)						
Income Source	Mathematical Sciences	Physics	Electrical Engineering & CS/IT	Chemistry	Biosciences	Total*		
BIS Research Councils, The Royal Society, British Academy and The Royal Society of Edinburgh	53,079	201,666	72,502	107,669	208,913	1,527,740		
UK central government bodies, local authorities, health & hospital authorities	4,660	12,624	16,220	8,820	29,912	842,710		
UK industry, commerce & public corporations	3,424	7,404	19,581	13,771	22,924	291,798		
UK-based charities (open competitive process)	3,696	5,879	4,837	15,101	184,131	881,531		
UK-based charities (other)	274	737	448	722	10,408	40,770		
EU government bodies	14,373	40,699	37,412	39,237	74,672	593,596		
EU industry, commerce & public corporations	852	733	1,429	2,957	5,900	56,077		
EU-based charities (open competitive process)	119	7	0	335	1,202	9,759		
EU other	829	1,829	1,007	438	2,925	30,773		
Non-EU industry, commerce & public corporations	472	2,197	3,579	7,830	7,884	138,575		
Non-EU-based charities (open competitive process)	1,392	560	62	921	8,982	101,331		
Non-EU other	4,500	4,781	1,699	4,164	14,057	136,783		
Other sources	469	772	1,565	935	3,193	45,464		
Total	88,139	279,888	160,341	202,900	575,103	4,696,907		

* Only income shown against academic cost centres is included. Income shown against central university services is excluded.

Appendix B: Sources of external research incomes

External research income includes all income in respect of externally sponsored research carried out by the institution or its subsidiary undertaking for which directly related expenditure has been incurred. From 2007/08 research income has been assigned to one of thirteen categories which are defined below how these 14 categories map to the eight categories used up to 2006/07 and which are used in this report is shown in Table 2 in section 1.2.

BIS Research Councils, The Royal Society, British Academy and The Royal Society of Edinburgh income includes all research grants and contracts income from Research Councils sponsored by the Department for Business, Innovation and Skills (BIS), The Royal Society, British Academy and The Royal Society of Edinburgh.

UK-based charities income includes all research grants and contracts income from all charitable foundations, charitable trusts, etc. based in the UK which are registered with the Charities Commission or those recognised as charities by the Office of the Scottish Charity Regulator (OSCR) in Scotland.

Income from UK-based charities is split between those with an **open competitive process** for the allocation of funds and **other** charities.

UK-based charities (open competitive process) income includes research grants or contracts income from UK-based charities that was available to more than one institution through direct competition, awarded to the institution that demonstrated the highest quality research proposal according to external peer review. It also includes grants where it can be shown that the charity took external expert advice on its choice of institution, and either the charity had made it known that it was open to grant applications from other institutions, even though an open invitation to bid for the particular grant was not issued; or the charity restricted the funding opportunity on a reasoned basis in that particular requirements of the project could only be met by a limited number of institutions (i.e. where a project required highly specialist expertise or facilities, or a specific regional focus).

UK-based charities (other) includes research grants or contracts income from UK-based charities that does not meet the definition of open competition.

UK central government bodies, local authorities, health and hospital authorities income includes all research grants and contract income from UK central government bodies, UK local authorities and UK health and hospital authorities, except Research Councils and UK public corporations. This includes government departments and other organisations (including registered charities) financed from central government funds. Research grants and contracts from non-departmental public bodies (NDPBs) such as the British Council are also included in this source of income.

UK industry, commerce and public corporations income includes all research grants and contracts income from industrial and commercial companies and public corporations (defined as publicly owned trading bodies, usually statutory organisations with a substantial degree of financial independence) operating in the UK.

EU government bodies income includes all research grants and contracts income from all government bodies operating in the EU, which includes the European Commission, but excludes bodies in the UK.

EU-based charities (open competitive process) income includes research grants or contracts income from EU bodies with exclusively charitable purposes that was available to more than one institution through direct competition. It also includes grants where it can be shown that the charity took external expert advice on its choice of institution, and either the charity had made it known that it was open to grant applications from other institutions, even though an open invitation to bid for the particular grant was not issued; or the charity restricted the funding opportunity on a reasoned basis in that particular requirements of the project could only be met by a limited number of institutions (i.e. where a project required highly specialist expertise or facilities, or a specific regional focus).

EU industry, commerce and public corporations income includes all research grants and contracts income from industrial and commercial companies and public corporations (defined as publicly owned trading bodies, usually statutory corporations, with a substantial degree of financial independence) operating in the EU outside of the UK.

EU other income includes all research grants and contracts income from EU-based non-competitive charities and any other EU income not otherwise specified.

Non-EU-based charities (open competitive process) income includes research grants or contracts income from non-EU bodies with exclusively charitable purposes, which was available to more than one institution through direct competition. It also includes grants where it can be shown that the charity took external expert advice on its choice of institution, and either the charity had made it known that it was open to grant applications from other institutions, even though an open invitation to bid for the particular grant was not issued; or the charity restricted the funding opportunity on a reasoned basis in that particular requirements of the project could only be met by a limited number of institutions (i.e. where a project required highly specialist expertise or facilities, or a specific regional focus).

Non-EU industry, commerce and public corporations income includes all research grants and contracts income from industrial and commercial companies and public corporations (defined as publicly owned trading bodies, usually statutory corporations, with a substantial degree of financial independence) operating outside the EU.

Non-EU other income includes all research grants and contracts income from all non-EU-based non-competitive charities and any other non-EU income not otherwise specified.

Other sources of income includes all research grants and contracts income not covered above. This includes income from other higher education institutions (HEIs) where the HEI is the original contractor.

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