



LONDON  
MATHEMATICAL  
SOCIETY



# **LONDON MATHEMATICAL SOCIETY DATA REPORT ON:**

## **Academic Mathematical Sciences Staff in UK Higher Education Institutions**

November 2013



This report was prepared for the London Mathematical Society by Sean McWhinnie of Oxford Research and Policy. Sean McWhinnie established Oxford Research and Policy in 2009. Oxford Research and Policy is a consultancy that carries out research and evaluation, and specialises in higher education, science policy, and equality and diversity.

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# 1. Introduction

This is the first in a series of reports commissioned by the London Mathematical Society. The intention is to provide an accessible reference document providing data on Academic Mathematical Sciences Staff in UK Higher Education Institutions; a further in-depth analysis report will be published in due course. A report focusing on the Research Income of Mathematics in UK Higher Education Institutions is also planned.

This report presents the latest available data on academic and research staff recorded under the UK Higher Education Institute (HEI) mathematics cost centre and in a number of selected other cost centres. The data source for the report is the Higher Education Statistics Agency (HESA). HESA is the central source for the collection and dissemination of statistics about publicly funded UK higher education.

## 1.1 Cost Centres

HESA require staff data to be returned with staff assigned to cost centres. The list of cost centres includes: mathematics; physics; electrical engineering & computer science; information technology & system science, computer software engineering; chemistry; and biosciences, which are discussed in this report. Institutions are required to map their constituent departments/schools to cost centres. If they wish they can apportion departments across a number of cost centres. This can lead to anomalies: in some cases, HEIs report mathematical sciences staff although there is no recognised mathematical sciences department. In other cases staff numbers may not match those in a specific mathematical sciences department as staff from other departments may have been counted as belonging to the mathematics cost centre, and/or staff working in a mathematical sciences department may be assigned to another cost centre.

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 Science, Cancer Research, Biochemistry, and Sports Science. Full details of the mapping between departments and cost centres are available on the HEFCE website.<sup>1</sup> In mathematical sciences the majority of institutions map their mathematical sciences-related departments directly onto the mathematics cost centre; a few institutions use more complicated mappings.

It is important to note that, throughout 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. This usage conforms with that employed in REF2014; the full set of mappings between HESA Cost Centres and REF Units of Assessment can be found on the HESA web site<sup>2</sup>.

<sup>1</sup> Assignment of departments to academic cost centres 2001-02, ([http://www.hefce.ac.uk/pubs/hefce/2002/02\\_25.htm](http://www.hefce.ac.uk/pubs/hefce/2002/02_25.htm))

<sup>2</sup> [http://www.hesa.ac.uk/dox/circulars/Cost\\_Centres/HESA\\_mapping\\_of\\_old\\_Cost\\_Centres\\_to\\_new\\_Cost\\_Centres\\_to\\_REF\\_UoAs.pdf](http://www.hesa.ac.uk/dox/circulars/Cost_Centres/HESA_mapping_of_old_Cost_Centres_to_new_Cost_Centres_to_REF_UoAs.pdf)

## 1.2 Staff Grades

Until 2007/08, HESA reported staff data were categorised into professors, senior lecturers/readers, lecturers, researchers and other grades. The definitions employed for these staff grades are shown below:

**Professors** includes heads of departments, professors, researchers in former UAP scale grade IV, clinical professors, and those appointed professors on a locally determined scale.

**Senior lecturers/readers/readers & researchers** includes principal lecturers, senior lecturers/ readers (former UAP/CSCFC scales), researchers (former UAP scale grade III), clinical senior lecturers/readers and those appointed senior or principal lecturers on a locally determined scale.

**Lecturers** includes lecturers, senior lecturers (former PCEF scale), clinical lecturers and those appointed lecturers on a locally determined scale.

**Researchers** includes all research grades (former PCEF/CSCFC/UAP scale) not listed above and those researchers appointed on a locally determined scale.

**Other grades** includes other grades of academic staff not listed above.

Since 2008/09 this breakdown of grades has not been used by HESA. Although professors are identifiable through a specific marker returned by institutions to HESA, there have been substantial changes in the way some non-professorial staff are classified. It is likely that some staff will be classified incorrectly in this transition, nonetheless the data compare reasonably well with previous years, although it is noticeable that the "other grades" category is depleted as the methodology used classifies the majority of staff previously recorded as "other staff" as "senior lecturers/readers/lecturers". It is not possible to distinguish between senior lecturers/readers and lecturers.

Staff numbers are presented as full time equivalents (FTEs) not as headcounts. The conditions of HESA's licence require that where we publish numerical totals, they are rounded to the nearest 5; any totals less than 5 may not be published. Notwithstanding these constraints, all proportions and ratios presented in the report are calculated using unrounded figures.

In the report a number of different terms are used to signify different groupings of academic grades. The term permanent academic staff refers to professors, senior lecturers/readers, and lecturers; the term academic staff refers to professors, senior lecturers/readers, lecturers and researchers; and the term all staff refers to all academic staff grades and other grades. However it is important to note that the term "permanent" in this instance does not convey any information about the nature or duration of the contracts of the people listed.

## 2. Mathematical Sciences Staff in UK HEIs

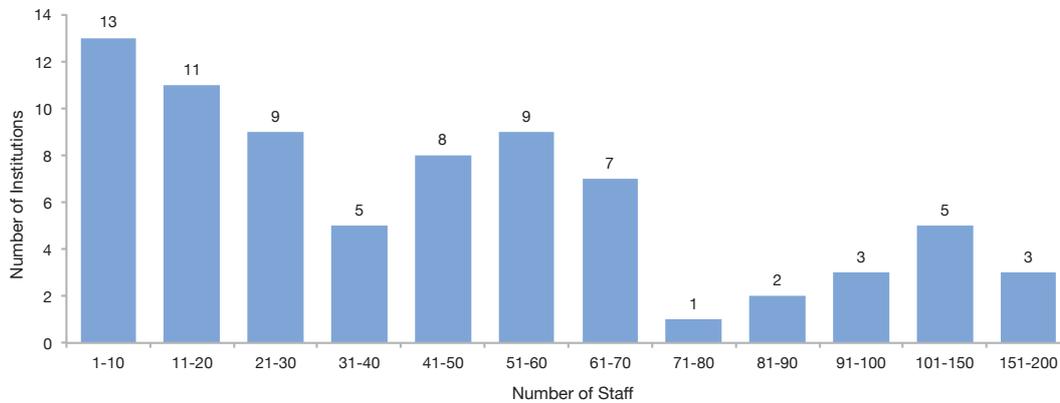
### 2.1 The Number of Staff

**Table 1:** The number (=FTEs) of staff in selected cost centres by grade 2006/07 to 2011/12  
(Source: HESA Staff Data)

Cost centre	Grade	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	% Change*
Mathematical sciences	Professors	685	755	720	710	695	765	
	Senior Lecturers/Readers	695	750	2560	2615	2655	2585	
	Lecturers	930	975					
	Researchers	630	715	685	705	725	715	
	Other grades	850	870	10	5	5	5	
	Teaching only	1015	1030	1085	1080	1145	1065	
	Total Staff	3790	4065	3975	4035	4080	4070	7%
Physics	Professors	590	620	635	650	670	745	
	Senior Lecturers/Readers	555	585	1355	1335	1320	1350	
	Lecturers	400	420					
	Researchers	1995	2125	2210	2180	2145	2110	
	Other grades	330	350	10	0	0	0	
	Teaching only	310	335	385	365	345	355	
	Total Staff	3865	4100	4210	4170	4140	4205	9%
Electrical, Electronic & Computer Engineering	Professors	445	465	475	465	470	485	
	Senior Lecturers/Readers	785	855	1910	2040	2205	2135	
	Lecturers	810	710					
	Researchers	1340	1370	1395	1345	1450	1415	
	Other grades	355	355	10	5	0	0	-
	Teaching only	405	385	410	495	585	595	
	Total Staff	3730	3760	3790	3855	4125	4040	8%
Information Technology & Systems Sciences, Computer Software Engineering	Professors	550	600	560	555	580	595	
	Senior Lecturers/Readers	1795	1800	5070	4885	4745	4420	
	Lecturers	2085	1970					
	Researchers	1455	1485	1505	1505	1515	1470	
	Other grades	1300	1280	35	25	15	10	
	Teaching only	1505	1455	1640	1560	1500	1340	
	Total Staff	7180	7135	7175	6970	6860	6495	-10%
Chemistry	Professors	420	455	460	450	460	515	
	Senior Lecturers/Readers	530	565	1375	1440	1440	1395	
	Lecturers	485	490					
	Researchers	1715	1760	1725	1675	1680	1695	
	Other grades	290	250	0	0	0	0	
	Teaching only	320	280	355	375	410	425	
	Total Staff	3435	3525	3565	3565	3585	3610	5%
Biosciences	Professors	1100	1190	1220	1220	1190	1295	
	Senior Lecturers/Readers	1645	1710	4715	4695	4940	4875	
	Lecturers	1650	1715					
	Researchers	5330	5515	5815	5875	5720	5620	
	Other grades	1255	1210	20	10	5	10	
	Teaching only	1115	1160	1340	1320	1395	1390	
	Total Staff	10980	11340	11775	11790	11855	11795	7%
All Academic Cost Centres	Professors	16165	17895	17220	17055	17120	18125	
	Senior Lecturers/Readers	33280	36560	118760	121260	120690	120110	
	Lecturers	50980	50985					
	Researchers	36280	37565	39200	39685	40060	40105	
	Other grades	30200	28695	700	375	275	285	
	Teaching only	42105	41795	44730	45300	44180	44930	
	Total Staff	166910	171700	175880	178375	178145	178630	7%

\* % change is calculated based on the data for 2006/07 and 2011/12

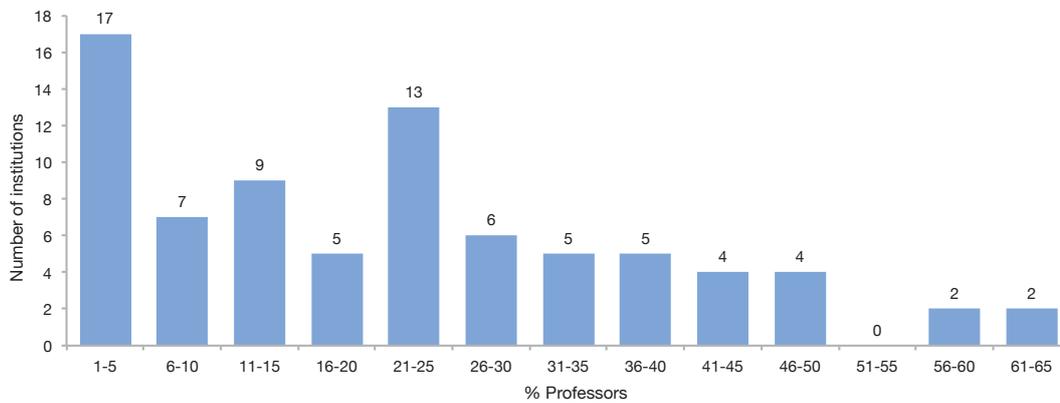
**Figure 1:** Number of all staff in individual mathematical sciences cost centres by institution in 2011/12 (Source: HESA Staff Data)\*



\* The Open University has not been included in Figure 1.

Figure 1 presents data on the size distribution of the mathematical sciences cost centres. The size of individual mathematical sciences cost centres varies from HEIs with fewer than 10 staff to institutions returning well over 150 staff in mathematical sciences.

**Figure 2:** Proportion of all permanent academic staff,\* including teaching only staff, who are professors in the mathematical sciences cost centres by HEI in 2011/12 (Source: HESA Staff Data)



\* Permanent academic staff are professors, senior lecturers/readers, and lecturers

**Table 2:** The proportion of staff at each permanent academic grade in selected cost centres 2006/07 to 2011/12, excluding teaching only staff (Source: HESA Staff Data)

Cost centre	Grade	Proportion of staff at each grade					
		2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Mathematical Sciences	Professor	33%	33%	33%	31%	31%	33%
	Senior Lecturer/Reader	33%	33%	67%	69%	69%	67%
	Lecturers	34%	34%				
Physics	Professor	39%	39%	39%	40%	40%	43%
	Senior Lecturer/Reader	37%	37%	61%	60%	60%	57%
	Lecturer	24%	24%				
Electrical, Electronic & Computer Engineering	Professor	24%	25%	24%	23%	22%	24%
	Senior Lecturer/Reader	42%	31%	76%	77%	78%	76%
	Lecturer	34%	35%				
IT & SS, Computer Software Engineering	Professor	14%	15%	14%	14%	15%	16%
	Senior Lecturer/Reader	45%	46%	86%	86%	85%	84%
	Lecturer	41%	39%				
Chemistry	Professor	32%	33%	31%	29%	30%	34%
	Senior Lecturer/Reader	40%	40%	69%	71%	70%	66%
	Lecturer	29%	28%				
Biosciences	Professor	27%	28%	26%	26%	25%	27%
	Senior Lecturer/Reader	39%	39%	74%	74%	75%	73%
	Lecturer	34%	33%				
All academic cost centres	Professor	19%	21%	19%	18%	18%	19%
	Senior Lecturer/Reader	38%	40%	81%	82%	82%	81%
	Lecturer	43%	39%				

**Table 3:** The proportion of teaching only staff at each permanent academic grade in selected cost centres 2006/07 to 2011/12 (Source: HESA Staff Data)

Cost centre	Grade	Proportion of staff at each grade					
		2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11	2011/ 12
Mathematical Sciences	Professor	0%	0%	0%	0%	0%	0%
	Senior Lecturer/Reader	6%	5%	100%	100%	100%	100%
	Lecturer	93%	95%				
Physics	Professor	0%	3%	1%	1%	1%	2%
	Senior Lecturer/Reader	8%	13%	99%	99%	99%	98%
	Lecturer	92%	85%				
Electrical, Electronic & Computer Engineering	Professor	1%	2%	1%	0%	0%	1%
	Senior Lecturer/Reader	6%	6%	99%	100%	100%	99%
	Lecturer	93%	92%				
IT & SS, Computer Software Engineering	Professor	1%	2%	0%	0%	0%	0%
	Senior Lecturer/Reader	6%	5%	100%	100%	100%	100%
	Lecturer	92%	93%				
Chemistry	Professor	2%	3%	1%	1%	1%	1%
	Senior Lecturer/Reader	7%	11%	99%	99%	99%	99%
	Lecturer	92%	87%				
Biosciences	Professor	1%	0%	0%	1%	1%	1%
	Senior Lecturer/Reader	13%	8%	100%	99%	99%	99%
	Lecturer	86%	92%				
All academic cost centres	Professor	1%	1%	1%	1%	1%	0%
	Senior Lecturer/Reader	11%	9%	99%	99%	99%	100%
	Lecturer	88%	90%				

## 2.2 Mathematical Sciences Staff and the RAE2008

Mathematical sciences related research units were able to make submissions under the applied mathematics, pure mathematics or statistics and operational research units of assessment (UoA) in the Research Assessment Exercise 2008. There were 45 submissions under the applied mathematics UoA, 37 under the pure mathematics UoA, and 30 under the statistics and operational research UoA. The submission date for the exercise was 31 December 2007.

**Table 4:** Number of category A staff submitted under selected UoAs in the RAE2008 and HESA staff data for the equivalent cost centres for 2007/08 (Sources: RAE2008 and HESA Staff Data)

Unit of Assessment(s)	Category A staff	Cost Centre	2007-08 HESA Research Active Permanent academic staff FTEs	Ratio of Category A FTEs to HESA FTEs
Applied Mathematics	850	Mathematical Sciences	2,480	0.78
Pure Mathematics	685			
Statistics and Operational Research	389			
Physics	1,686	Physics	1,625	1.04
Electrical and Electronic Engineering	841	Electrical, Electronic & Computer Engineering	1,878	0.45
Computer Science and Informatics	1,839	IT & SS, Computer Software Engineering	3,832	0.48
Chemistry	1,151	Chemistry	1,386	0.83
Biological Sciences	2,354	Biological Sciences	4,252	0.55
All UoAs	52,409	All Cost Centres	105,440	0.50
All UoAs: Russell Group	25,582	All Cost Centres: Russell Group	31,575	0.81
All UoAs: 1994 Group	9,392	All Cost centres: 1994 Group	12,630	0.74
All UoAs: UK except Russell Group & 1994 Group	17,436	All Cost centres: UK except Russell Group & 1994 Group	59,720	0.29

**Table 5:** Number of category A staff submitted by institutions to mathematical sciences UoAs in RAE2008 and HESA staff data for the mathematical sciences cost centre for 2006/07\* (Sources: RAE2008 and HESA Staff Data)

Institution	Permanent Academic Staff**	FTE Category A staff submitted			
		Applied Mathematics	Pure Mathematics	Statistics and Operational Research	Total
University of Cambridge	95	80.3	55.0	16.0	151.3
University of Oxford	95	54.3	55.2	24.5	133.9
University of Bristol	75	38.0	34.5	23.0	95.5
University of Warwick	95	29.3	32.0	24.0	85.3
Imperial College London	75	37.2	21.8	13.9	72.9
University of Manchester	75	28.8	27.0	10.9	66.7
University of Southampton	80	17.0	15.8	28.0	60.8
University of Leeds	70	24.9	23.2	11.0	59.1
University of Edinburgh	50	17.0	31.0	11.0	59.0
University of Nottingham	60	34.4	15.0	9.0	58.4
University of Durham	50	26.0	15.0	11.6	52.6
University of Glasgow	50	19.0	16.3	13.0	48.3
Heriot-Watt University	50	18.5	10.0	19.0	47.5
University College London	55	16.5	15.3	13.5	45.3
University of Sheffield	45	17.0	17.3	10.7	45.0
University of Bath	45	19.8	10.0	15.0	44.8
Queen Mary, University of London	50	15.0	20.2	8.2	43.4
University of Liverpool	45	23.3	15.0	5.0	43.3
University of Birmingham	40	25.0	18.0		43.0
University of Strathclyde	45	24.3		10.3	34.7
University of York	35	22.0	12.3		34.3
University of Newcastle upon Tyne	35	11.0	10.0	13.0	34.0
University of St Andrews	35	15.0	12.0	7.0	34.0
Loughborough University	40	20.4	11.4		31.8
University of Lancaster	30		10.0	21.7	31.7
King's College London	35	18.0	13.0		31.0
Cardiff University	30		30.5		30.5
Brunel University	30	19.0		10.0	29.0
University of Reading	30	21.3		7.7	29.0
Royal Holloway, University of London	35		26.6		26.6
London School of Economics and Political Science	40		12.5	13.0	25.5
University of Kent	35	6.0	6.0	12.0	24.0
Open University	55		16.5	7.0	23.5
University of Exeter	20	18.0	5.0		23.0
University of Leicester	20	12.0	10.0		22.0
Swansea University	20		20.5		20.5
University of Surrey	20	17.4			17.4
University of Portsmouth	20	16.0			16.0
University of Aberdeen	15		14.0		14.0
University of East Anglia	15	7.0	7.0		14.0
University of Sussex	15	13.0			13.0

University of Dundee	10	10.7			10.7
University of Salford				9.8	9.8
University of Keele	15	9.0			9.0
University of the West of England, Bristol	25	9.0			9.0
Aberystwyth University	10		8.3		8.3
City University	25	8.2			8.2
Queen's University Belfast	10		8.2		8.2
London Metropolitan University			4.0	4.0	8.0
University of Plymouth	30	4.0		4.0	8.0
Coventry University	25	7.0			7.0
University of Chester	5	5.8			5.8
Oxford Brookes University	10	5.7			5.7
University of Glamorgan	20	4.0			4.0
University of Brighton	30	3.0			3.0
University of Greenwich	5			2.0	2.0
Glasgow Caledonian University	5	1.0			1.0
Staffordshire University	10	1.0			1.0
<b>Total</b>	<b>2305</b>	<b>850.1</b>	<b>685.3</b>	<b>388.8</b>	<b>1924.1</b>

\* HESA staff data for 2006/07 has been used as data for 2007/08 was not in line with other years' data

\*\* All values have been round to the nearest 5. Permanent academic staff are professors, senior lecturers/readers, and lecturers

## 2.3 Gender Balance of Staff

**Table 6:** The proportion of female academic staff\* in selected cost centres 2006/07 to 2011/12, excluding teaching only staff (Source: HESA Staff Data)

Cost Centre	Proportion of Female Academic Staff					
	2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11	2011/ 12
Mathematical Sciences	16%	18%	18%	18%	17%	18%
Physics	14%	15%	15%	16%	16%	16%
Electrical Electronic & Computer Engineering	12%	11%	12%	12%	13%	13%
IT & SS, Computer Software Engineering	23%	22%	22%	21%	21%	21%
Chemistry	23%	23%	24%	24%	24%	24%
Biosciences	40%	40%	41%	41%	41%	42%
All STEM Cost Centres	27%	27%	27%	28%	28%	28%
All Academic Cost Centres	39%	40%	41%	41%	42%	42%

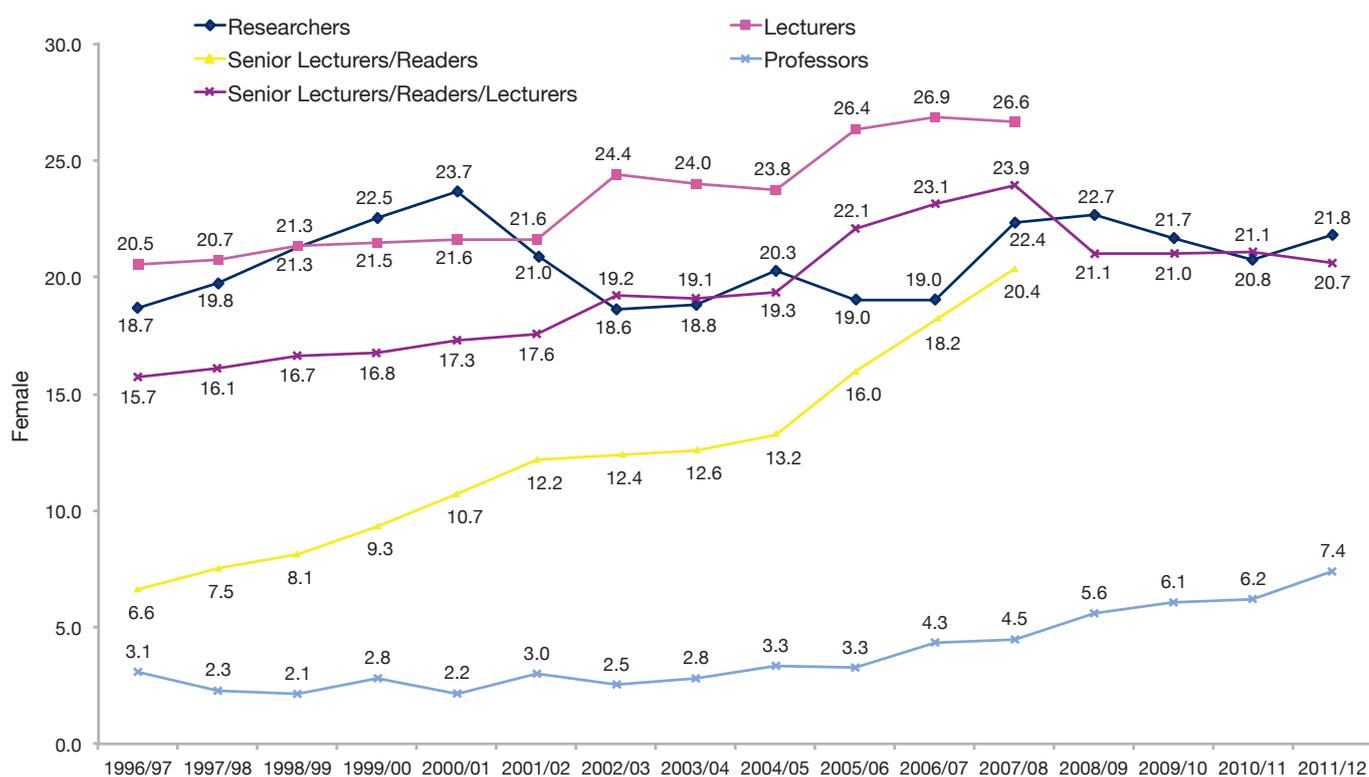
\* Academic staff comprises professors, senior lecturers/readers, lecturers and researchers

**Table 7:** The proportion of female teaching only academic staff\* in selected cost centres 2006/07 to 2011/12  
(Source: HESA Staff Data)

Cost Centre	Proportion of Female Academic Staff					
	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Mathematical Sciences	37%	38%	36%	38%	38%	37%
Physics	23%	18%	27%	26%	29%	29%
Electrical Electronic & Computer Engineering	19%	18%	14%	18%	20%	18%
IT & SS, Computer Software Engineering	29%	31%	26%	24%	25%	24%
Chemistry	36%	38%	41%	39%	37%	40%
Biosciences	48%	53%	54%	55%	57%	58%
All STEM Cost Centres	35%	38%	38%	39%	41%	41%
All Academic Cost Centres	49%	50%	51%	51%	52%	52%

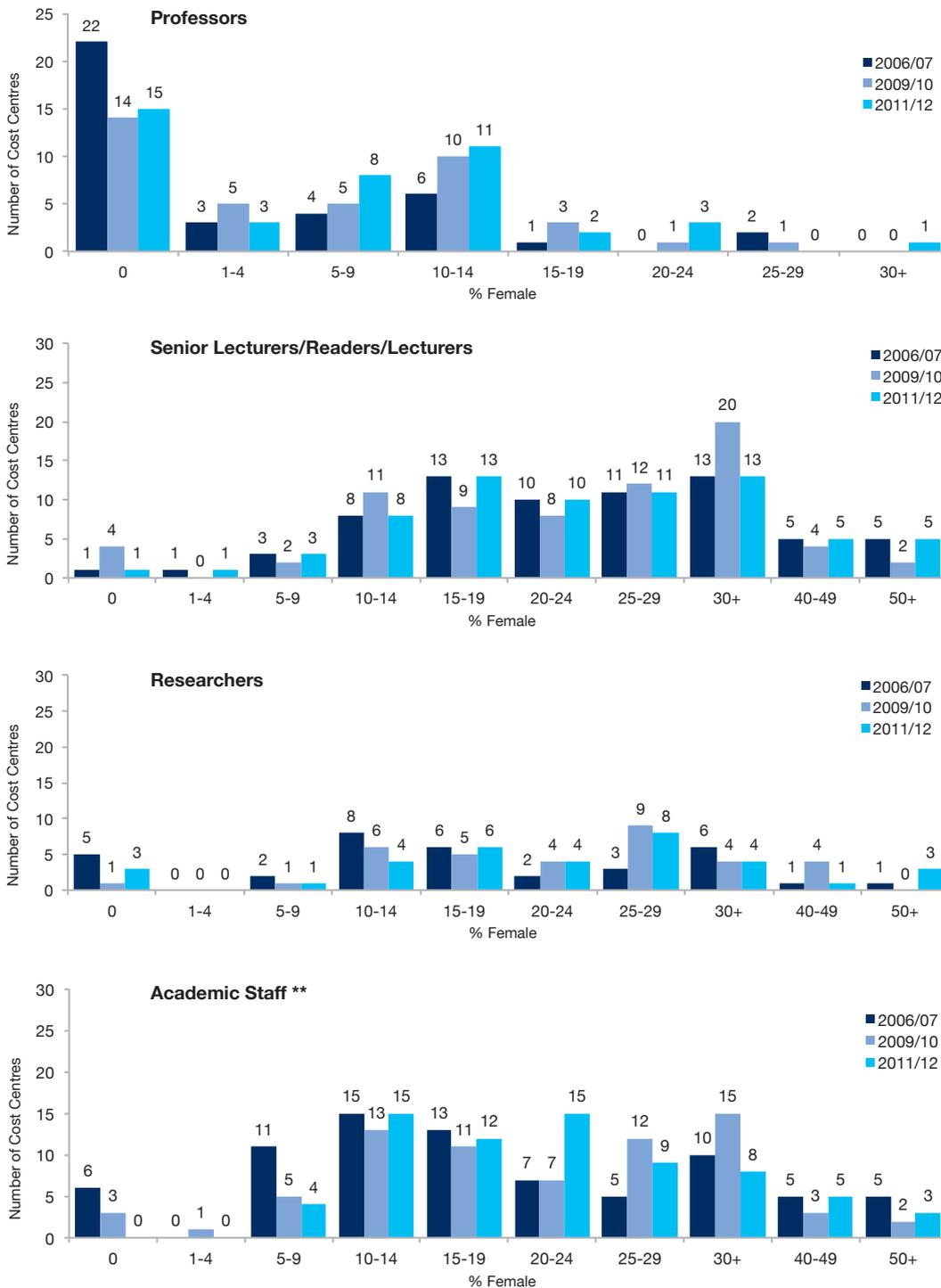
\* Academic staff comprises professors, senior lecturers/readers, lecturers and researchers

**Figure 3:** Proportion of female staff in the mathematical sciences cost centre at each grade 1996/97 to 2011/12 (Source: HESA Staff Data)



Note: HESA stopped collecting data broken down by grades in 2008/09 consequently data for lecturers and senior lecturers/readers are only shown up to 2007/08

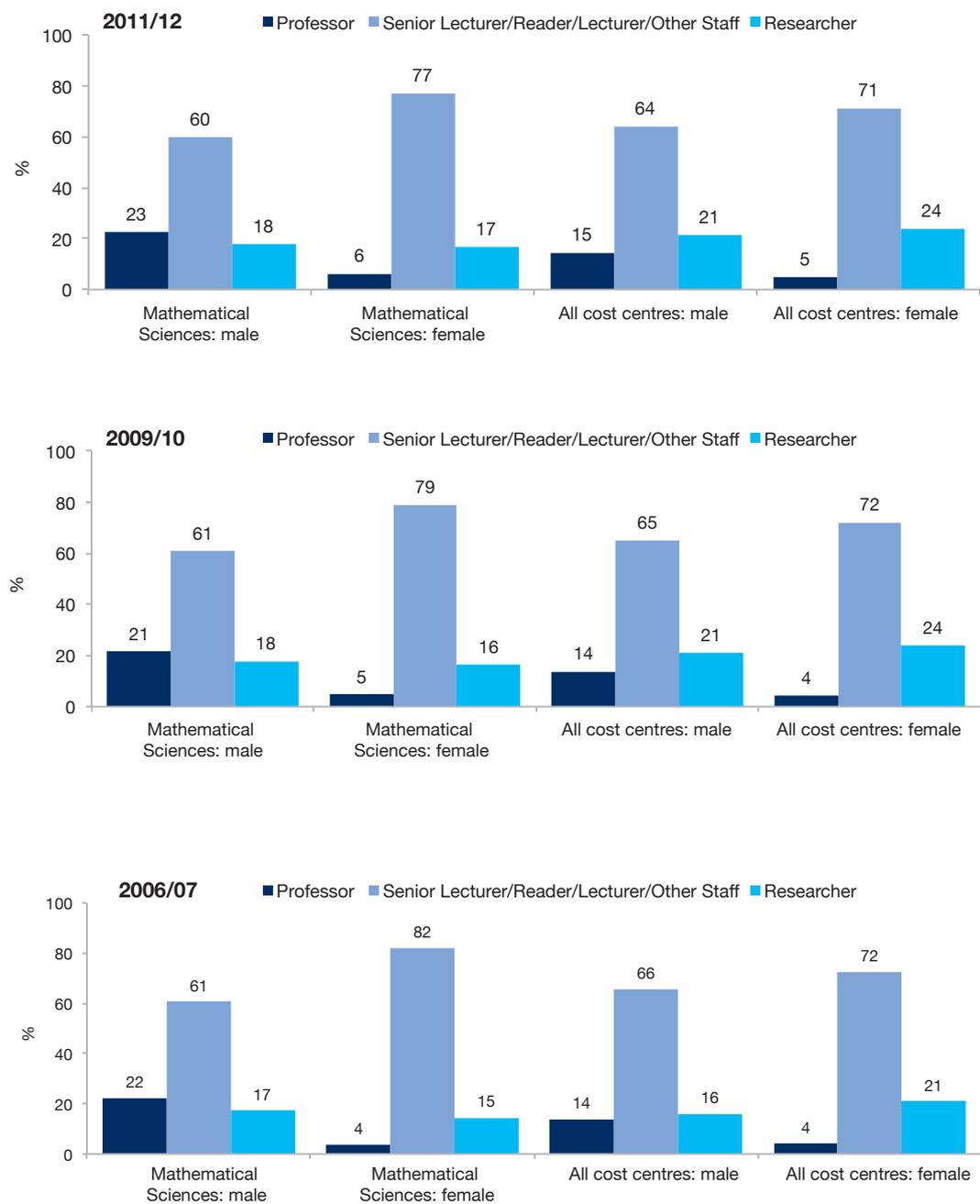
**Figure 4:** Proportion of female staff by grade\* in individual mathematical sciences cost centres 2006/07 to 2011/12 (Source: HESA Staff Data)



\* Proportions of female staff have only been calculated where there were more than 5 staff at a specific grade  
 Professors: 2006/07, 30 excluded out of 68; 2009/10, 27 excluded out of 66; 2011/12, 21 excluded out of 64  
 Senior lecturers/readers and Lecturers: 2006/07, 7 excluded out of 77; 2009/10, 7 excluded out of 79; 2011/12, 7 excluded out of 77.  
 Researchers: 2006/07, 28 excluded out of 62; 2009/10, 20 excluded out of 54; 2011/12, 18 excluded out of 52  
 Academic Staff: 2006/07, 8 excluded out of 85; 2009/10, 7 excluded out of 79; 2011/12, 6 excluded out of 77

\*\* Academic staff comprises professors, senior lecturers/readers, lecturers and researchers.

**Figure 5:** Distribution of all male and female staff between grades in mathematical sciences and all cost centres 2006/07 to 2011/12 (Source: HESA Staff Data)



Distribution of all male and female staff between grades in mathematical sciences and all cost centres 2006/07 to 2011/12 (Source: HESA Staff Data)

**Table 8:** Percentage of all male and female staff at different grades in selected cost centres 2006/07 to 2011/12 (Source: HESA Staff Data)

Cost Centre	Grade	Male Staff			Female Staff		
		2006/07	2009/10	2011/12	2006/07	2009/10	2011/12
Mathematical Sciences	Professors	22%	21%	23%	4%	5%	6%
	Senior Lecturers/Readers/ Lecturers/Other Staff	61%	61%	60%	82%	79%	77%
	Researchers	17%	18%	18%	15%	16%	17%
Physics	Professors	17%	18%	20%	5%	5%	7%
	Senior Lecturers/Readers/ Lecturers/Other Staff	33%	31%	31%	35%	36%	37%
	Researchers	50%	51%	49%	59%	59%	55%
Electrical Electronic & Computer Engineering	Professors	13%	13%	13%	4%	5%	6%
	Senior Lecturers/Readers/ Lecturers/Other Staff	53%	53%	53%	50%	54%	54%
	Researchers	34%	34%	34%	46%	41%	40%
IT & SS, Computer Software Engineering	Professors	9%	9%	10%	4%	4%	5%
	Senior Lecturers/Readers/ Lecturers/Other Staff	70%	69%	67%	78%	76%	74%
	Researchers	21%	22%	23%	19%	20%	20%
Chemistry	Professors	15%	16%	18%	3%	4%	4%
	Senior Lecturers/Readers/ Lecturers/Other Staff	39%	40%	37%	35%	42%	44%
	Researchers	46%	45%	45%	62%	54%	52%
Biosciences	Professors	15%	15%	16%	3%	4%	4%
	Senior Lecturers/Readers/ Lecturers/Other Staff	43%	41%	41%	39%	39%	42%
	Researchers	42%	44%	42%	58%	58%	54%
All Academic Cost Centres	Professors	14%	14%	15%	4%	4%	5%
	Senior Lecturers/Readers/ Lecturers/Other Staff	66%	65%	64%	72%	72%	71%
	Researchers	20%	21%	21%	24%	24%	24%

**Table 9:** Proportion of all male and female permanent academic staff\* at professorial level in selected cost centres 2011/12 (Source: HESA Staff Data)

Cost Centre	Proportion of Permanent Academic Staff at Professorial Level		
	Male	Female	Overall
Mathematical Sciences	27%	7%	23%
Physics	39%	16%	36%
Electrical Electronic & Computer Engineering	20%	9%	19%
IT & SS, Computer Software Engineering	16%	7%	14%
Chemistry	32%	9%	27%
Biosciences	28%	9%	21%
All Subjects	18%	6%	13%

\* Permanent academic staff are professors, senior lecturers/readers and lecturers

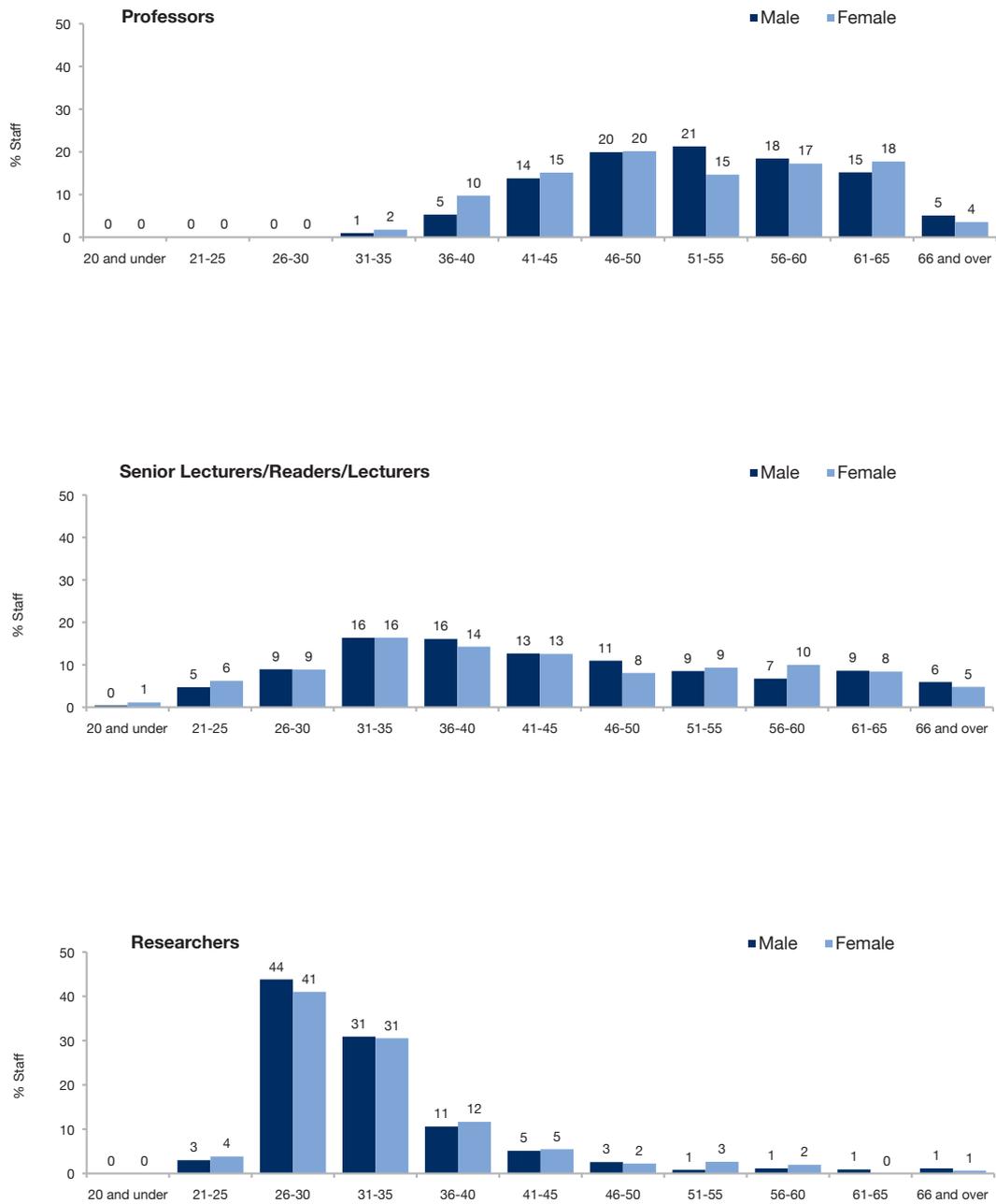
## 2.4 Age of Staff

Table 10 presents data on the age distribution of men and women by grade for selected cost centres in 2011/12. Figure 6 shows the distribution by ages of male and female staff in the mathematical sciences within each grade in 2011/12, and Figure 7 shows the same distributions across all cost centres in 2011/12. The average age of staff by grade and gender in selected cost centres in 2011/12 is shown in Table and the same data are plotted in Figure 8.

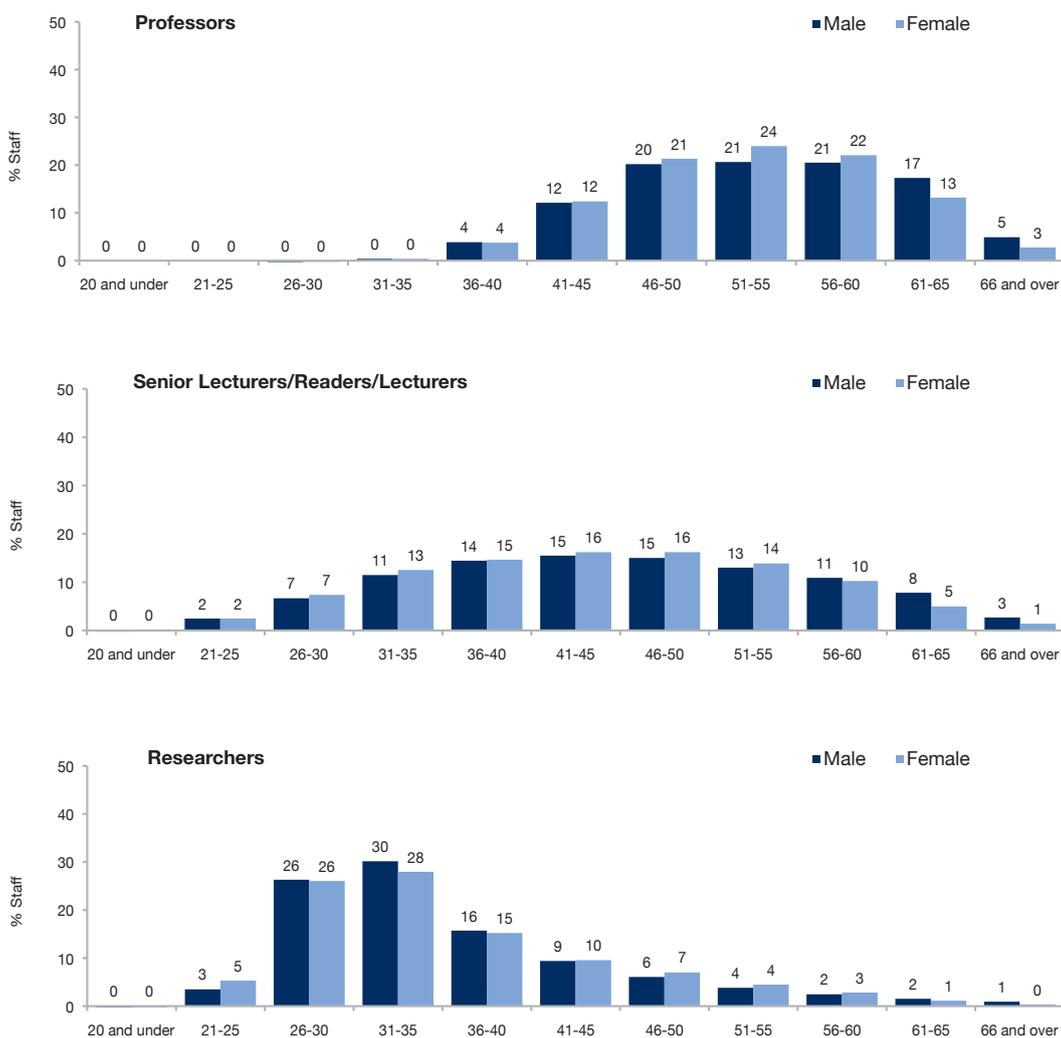
**Table 10:** Age distribution of all staff by grade and gender in selected cost centres 2011/12  
(Source: HESA Staff Data)

Subject	Grade	Gender	Percentage of staff in each age band (Years)										
			20 & under	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 & over
Mathematical Sciences	Professors	Male	0.0	0.0	0.0	1.0	5.3	13.8	19.9	21.3	18.5	15.2	5.1
		Female	0.0	0.0	0.0	1.8	9.8	15.1	20.2	14.7	17.3	17.7	3.5
	Senior Lecturers/ Readers/ Lecturers	Male	0.4	4.7	8.9	16.4	16.1	12.7	11.0	8.5	6.7	8.6	5.9
		Female	1.1	6.2	8.9	16.4	14.3	12.6	8.1	9.3	10.0	8.4	4.8
	Researchers	Male	0.0	3.0	43.8	30.9	10.6	5.1	2.6	0.8	1.1	0.9	1.1
		Female	0.0	3.8	41.0	30.5	11.7	5.5	2.2	2.6	2.0	0.0	0.6
Physics	Professors	Male	0.0	0.0	0.0	0.7	4.1	18.2	24.5	16.8	16.8	12.1	6.9
		Female	0.0	0.0	0.0	0.0	9.6	21.2	24.9	17.2	16.6	10.5	0.0
	Senior Lecturers/ Readers/ Lecturers	Male	0.2	8.2	6.6	12.2	24.8	17.0	13.3	8.1	4.8	3.4	1.4
		Female	0.8	11.4	9.6	15.4	19.7	18.2	11.7	6.8	4.7	1.0	0.7
	Researchers	Male	0.0	4.6	38.4	27.1	14.9	7.2	3.9	1.6	1.7	0.5	0.2
		Female	0.1	4.2	18.9	18.9	15.7	12.5	10.9	7.3	5.8	3.7	2.0
Electrical Electronic & Computer Engineering	Professors	Male	0.0	0.0	0.0	0.1	2.9	14.2	20.6	26.2	19.3	11.6	5.1
		Female	0.0	0.0	0.0	3.2	0.0	35.6	20.7	19.7	17.5	3.2	0.0
	Senior Lecturers/ Readers/ Lecturers	Male	0.1	5.4	9.3	12.2	16.0	13.9	14.1	11.9	10.0	5.5	1.7
		Female	0.0	6.4	14.1	16.2	18.0	15.8	15.4	8.3	3.6	1.8	0.3
	Researchers	Male	0.0	3.6	32.0	29.3	15.0	10.7	2.8	4.2	2.0	0.2	0.2
		Female	0.0	4.5	17.1	16.8	13.7	12.5	11.9	9.9	7.7	4.2	1.6
IT & SS, Computer Software Engineering	Professors	Male	0.0	0.0	0.0	0.4	6.3	15.8	26.7	19.9	16.3	11.5	3.1
		Female	0.0	0.0	0.0	0.0	1.6	9.1	24.2	33.0	21.4	9.3	1.6
	Senior Lecturers/ Readers/ Lecturers	Male	0.3	4.3	6.9	11.5	13.9	13.9	14.0	13.7	12.1	7.4	2.0
		Female	0.3	2.7	7.0	10.3	13.7	17.2	16.9	14.6	12.7	4.1	0.5
	Researchers	Male	0.2	5.6	33.5	28.0	12.8	8.7	4.6	3.0	2.1	1.1	0.5
		Female	0.0	5.3	25.3	25.7	17.8	10.3	6.6	3.8	3.8	1.2	0.2
Chemistry	Professors	Male	0.0	0.0	0.0	0.2	5.7	16.3	26.0	17.3	19.5	10.9	4.1
		Female	0.0	0.0	2.5	2.5	7.4	21.2	20.0	37.9	2.5	6.2	0.0
	Senior Lecturers/ Readers/ Lecturers	Male	0.0	5.8	4.5	13.6	16.5	19.1	17.2	11.4	7.0	3.8	1.2
		Female	0.0	10.6	12.8	19.8	17.2	15.3	11.8	6.8	4.8	0.8	0.0
	Researchers	Male	0.0	3.6	38.7	33.2	10.5	7.3	3.1	1.9	1.0	0.7	0.0
		Female	0.0	4.2	20.3	20.6	13.3	12.7	11.4	7.8	5.8	2.9	1.0
Biosciences	Professors	Male	0.0	0.0	0.0	0.2	3.0	9.7	22.9	23.6	21.9	15.4	3.3
		Female	0.0	0.0	0.0	0.0	0.2	11.8	23.2	28.2	22.9	11.5	2.2
	Senior Lecturers/ Readers/ Lecturers	Male	0.1	3.6	4.4	9.8	16.3	18.1	17.6	12.9	9.9	5.7	1.6
		Female	0.0	7.8	8.7	13.9	15.6	15.9	16.3	10.4	7.6	2.8	0.9
	Researchers	Male	0.0	2.3	23.7	31.9	18.7	9.6	6.4	3.6	1.9	1.3	0.7
		Female	0.0	3.8	26.7	32.3	15.5	9.3	6.5	3.2	1.7	0.8	0.2
All Subjects	Professors	Male	0.0	0.0	0.0	0.4	3.9	12.1	20.2	20.7	20.5	17.3	4.9
		Female	0.0	0.0	0.1	0.4	3.8	12.4	21.3	24.0	22.1	13.2	2.8
	Senior Lecturers/ Readers/ Lecturers	Male	0.1	2.5	6.7	11.5	14.4	15.5	15.0	13.0	10.9	7.8	2.7
		Female	0.1	2.5	7.4	12.5	14.6	16.2	16.2	13.9	10.3	5.0	1.4
	Researchers	Male	0.1	3.5	26.3	30.2	15.7	9.4	6.1	3.8	2.5	1.5	0.9
		Female	0.0	5.3	26.1	28.0	15.2	9.6	7.0	4.5	2.8	1.1	0.4

**Figure 6:** Age of all mathematical science staff by grade in 2011/12 (Source: HESA Staff Data)



**Figure 7:** Age of all staff in all cost centres by grade 2011/12 (Source: HESA Staff Data)

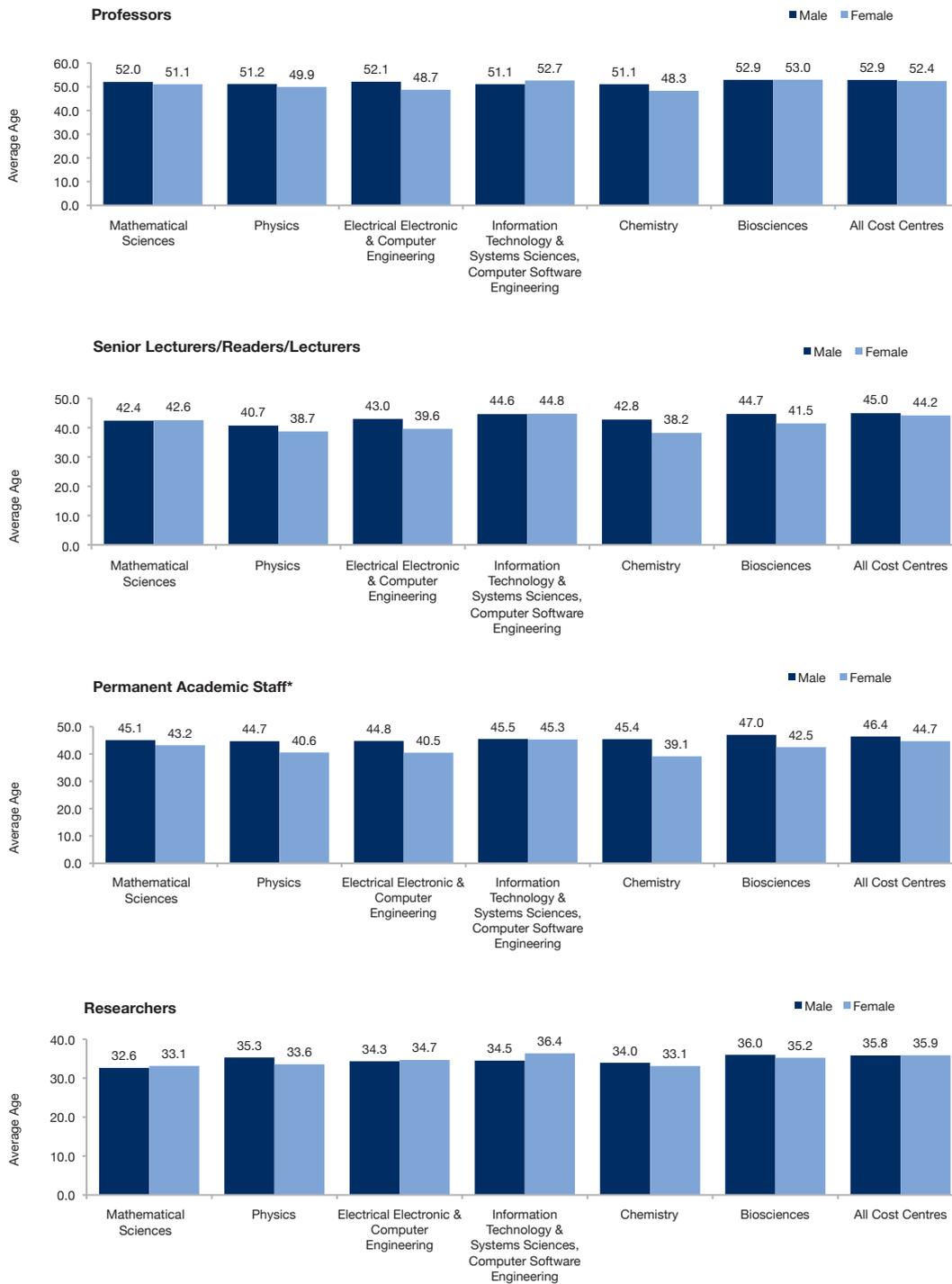


**Table 11:** Average age of staff by grade and gender in selected cost centres 2011/12, including teaching only staff (Source: HESA Staff Data)

Cost Centre	Average Age of Staff (Years)							
	Professors		Senior Lecturers/ Readers/ Lecturers		Permanent* Academic Staff		Researchers	
	Male	Female	Male	Female	Male	Female	Male	Female
Mathematical Sciences	52.0	51.1	42.4	42.6	45.1	43.2	32.6	33.1
Physics	51.2	49.9	40.7	38.7	44.7	40.6	35.3	33.6
Electrical Electronic & Computer Engineering	52.1	48.7	43.0	39.6	44.8	40.5	34.3	34.7
IT & SS, Computer Software Engineering	51.1	52.7	44.6	44.8	45.5	45.3	34.5	36.4
Chemistry	51.1	48.3	42.8	38.2	45.4	39.1	34.0	33.1
Biosciences	52.9	53.0	44.7	41.5	47.0	42.5	36.0	35.2
All Cost Centres	52.9	52.4	45.0	44.2	46.4	44.7	35.8	35.9

\* Permanent academic staff are professors, senior lecturers/readers and lecturers

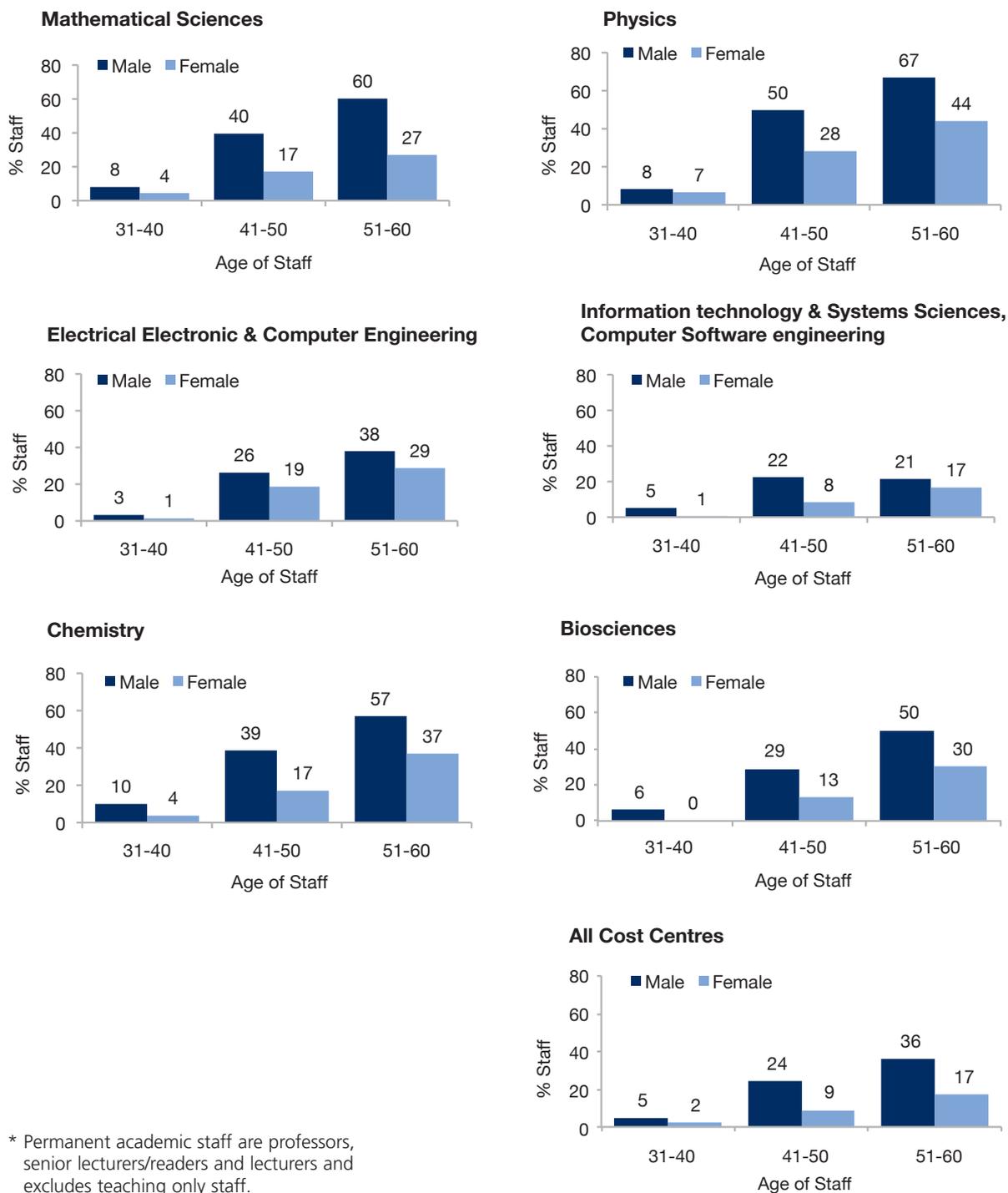
**Figure 8:** Average age of all staff by grade and gender in selected cost centres by grade 2011/12  
 (Source: HESA Staff Data)



\* Permanent academic staff are professors, senior lecturers/readers and lecturers

## 2.5 Age and Gender Profiles of Staff

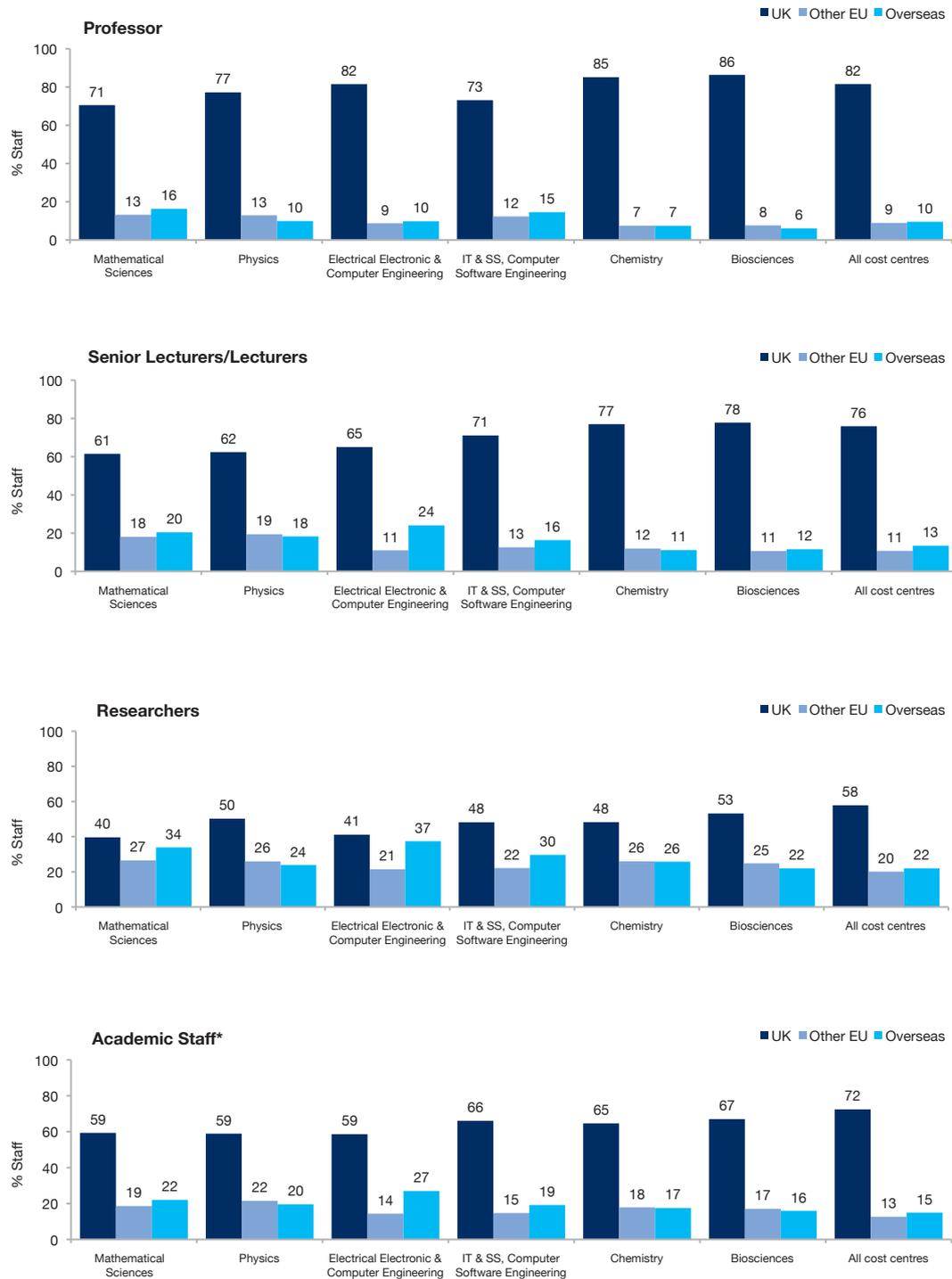
**Figure 9:** Average age of all staff by grade and gender in selected cost centres by grade 2011/12  
(Source: HESA Staff Data)



\* Permanent academic staff are professors, senior lecturers/readers and lecturers and excludes teaching only staff.

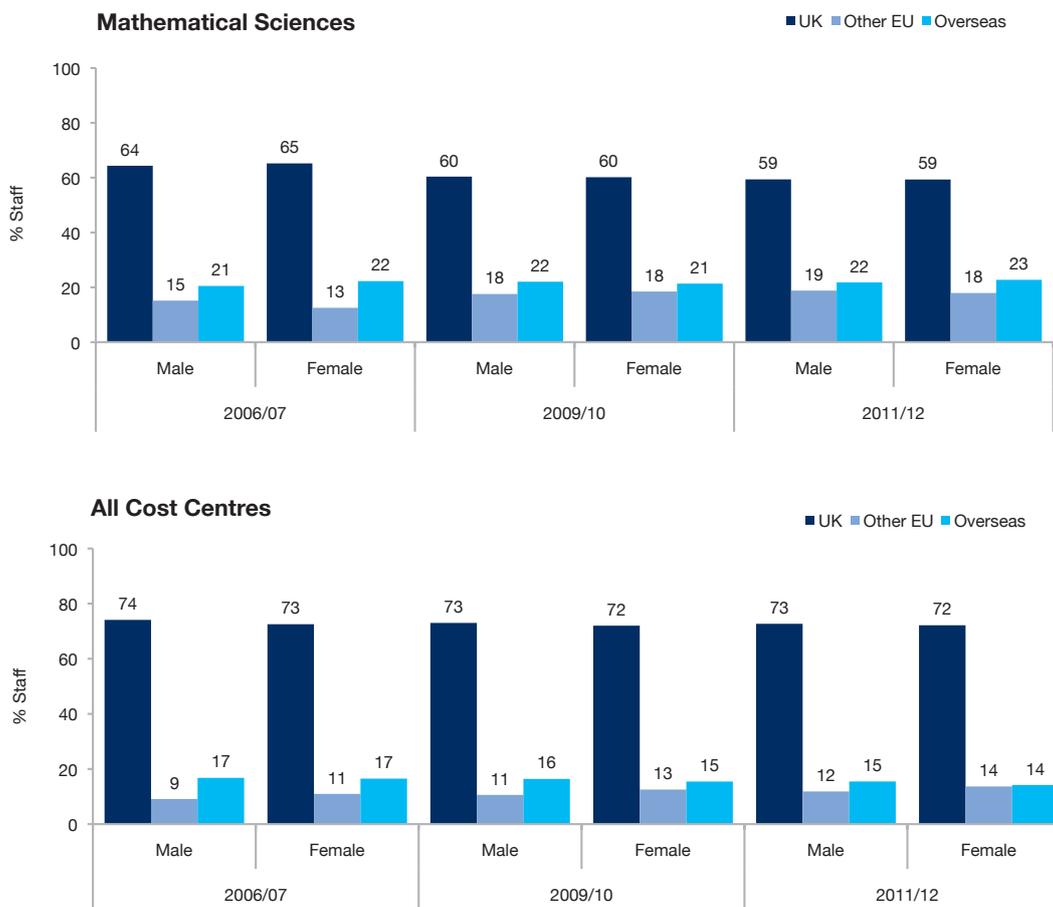
## 2.6 Nationality of Staff

Figure 10: Nationality of all staff by grade in selected cost centres 2011/12 (Source: HESA Staff Data)



\* Academic staff includes professors, senior lecturers/readers, lecturers and researchers

**Figure 11:** Nationality of all academic staff\* by gender 2006/07 to 2011/12 (Source: HESA Staff Data)



\* Academic staff includes professors, senior lecturers/readers, lecturers and researchers

**Table 12:** Ranking by numbers of nationalities of all the mathematical sciences staff by grade 2011/12 (Source: HESA Staff Data)

Rank	Professors	Senior Lecturers/Readers/Lecturers	Researchers	Academic Staff*
1	United Kingdom	United Kingdom	United Kingdom	United Kingdom
2	Germany	Germany	Germany	Germany
3	Russia	China	France	Russia
4	United States	Greece	China	China
5	Australia	Russia	United States	United States
6	Netherlands	France	France	Italy
7	Denmark	United States	Greece	Greece
8	China	Ireland	Russia	France
9	France	India	Netherlands	Netherlands
10	Belgium	France	Poland	Ireland

\* Academic staff includes professors, senior lecturers/readers, lecturers and researchers

## 2.7 Ethnicity of Staff

**Table 13:** Ethnicity of all UK national academic staff\* in selected cost centres 2011/12  
(Source: HESA Staff Data)

Ethnicity	Mathematics	Physics	Electrical Electronic & Computer Engineering	IT&SS, Computer Software Engineering	Chemistry	Biosciences	All Cost Centres
White	87.7%	86.9%	77.0%	85.4%	87.4%	87.0%	87.3%
Asian or Asian British - Indian	1.2%	1.4%	1.9%	1.8%	1.3%	1.8%	1.6%
Asian or Asian British - Pakistani	0.3%	0.3%	0.6%	0.8%	0.6%	0.7%	0.5%
Asian or Asian British - Bangladeshi	0.2%	0.1%	0.2%	0.1%	0.1%	0.2%	0.2%
Other Asian background	0.8%	0.7%	2.6%	1.5%	0.7%	0.7%	0.8%
Black or Black British - African	0.2%	0.2%	0.6%	0.9%	0.3%	0.4%	0.5%
Black or Black British - Caribbean	0.0%	0.0%	0.3%	0.2%	0.2%	0.3%	0.5%
Other Black background	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%
Chinese	1.7%	1.3%	5.3%	2.3%	1.5%	1.3%	1.1%
Other and mixed Ethnic background	1.9%	1.4%	3.6%	2.4%	1.6%	1.9%	2.0%
Unknown	6.0%	7.6%	7.7%	4.6%	6.3%	5.6%	5.4%

\* Academic staff are professors, senior lecturers/readers, lecturers and researchers

**Table 14:** Ethnicity of all UK national academic staff in the mathematical sciences cost centre by grade 2011/12 compared with the ethnic groups in England and Wales in 2011  
(Sources: HESA Staff Data and England and Wales Census 2011)

Ethnicity*	Grade				Ethnic groups in England and Wales 2011
	Professor	Senior Lecturer/Reader/Lecturer	Researcher	Overall	
White	94.5%	93.3%	91.0%	93.3%	86.0%
Asian	1.8%	2.8%	2.9%	2.6%	6.8%
Black	0.2%	0.3%	0.4%	0.3%	3.3%
Chinese	2.6%	1.4%	1.9%	1.8%	0.7%
Other/Mixed	0.9%	2.1%	3.8%	2.0%	3.2%

\* The unknowns have been excluded to allow comparison with the population data

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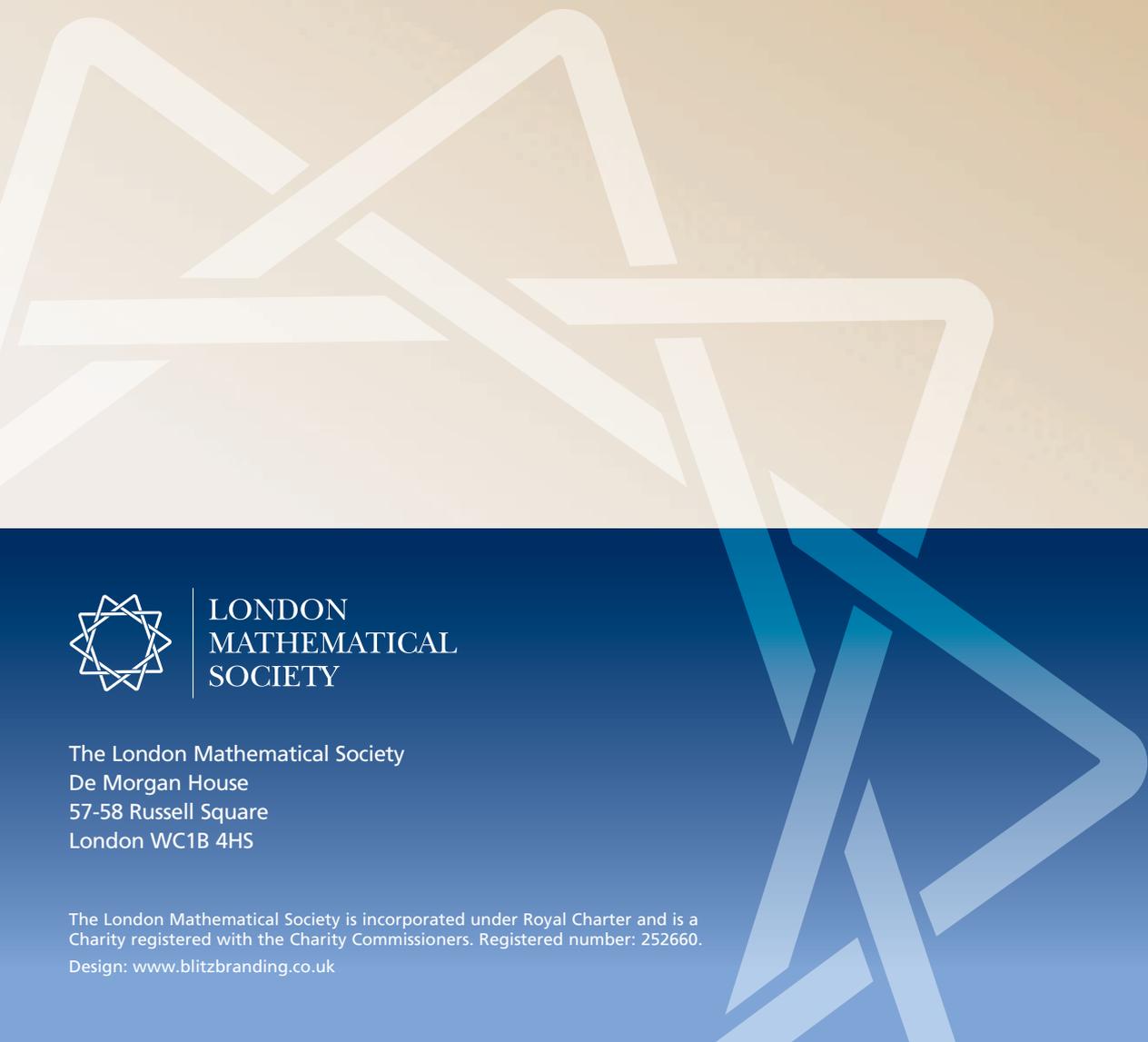
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# Notes

A decorative blue geometric pattern consisting of various overlapping lines and shapes, including triangles and polygons, set against a lighter blue background.

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